January 15, 2022

Dear Partner,

Updated results for the Hirschmann Partnership (the "Fund") are shown below. In H2 2021, the Fund returned -2.3% v. 11.7% for the S&P 500.

	Class A	Class B	S&P 500	MSCI World	Gold Miner		
	Return	Return	Index	Index	Index	GDXJ Index	Gold (US\$)
Q4 2014	-2.2%	-2.2%	4.9%	1.0%	-13.3%	-28.3%	-2.2%
2015	27.0%	24.8%	1.4%	-0.5%	-24.8%	-19.1%	-10.4%
2016	47.1%	44.7%	12.0%	7.9%	54.3%	72.9%	9.1%
2017	-12.6%	-12.6%	21.8%	22.8%	12.2%	8.2%	12.6%
2018	-23.0%	-23.0%	-4.4%	-8.4%	-8.5%	-11.0%	-1.5%
2019	63.3%	63.3%	31.5%	28.1%	40.4%	40.5%	18.3%
2020	52.1%	64.4%	18.4%	16.3%	23.7%	30.4%	25.1%
2021	-23.7%	-23.7%	28.7%	22.2%	-9.4%	-21.2%	-3.6%
YTD 2022	7.4%	7.4%	-2.1%	-1.8%	-2.9%	-3.5%	-0.7%
Cumulative	150.2%	161.6%	172.2%	118.2%	57.9%	34.4%	50.1%
Annualized	13.4%	14.1%	14.7%	11.3%	6.5%	4.1%	5.7%

MSCI Index is Developed Market Standard (Net w . USA Gross). Gold Miner Index is NYSE Arca. GDXJ is GDXJ Total Return Index. As of Jan. 14

I define the intrinsic value of the Fund's gold mining equities (GMEs) as the estimated present value of the mines' future gold revenue, at current gold prices, less all costs, discounted at 14%. The Fund's intrinsic value is ~4x its current market value and did not decrease significantly in 2021. (See table below.) Thus I remain extremely confident that the Fund will rebound and outperform all its benchmarks (in the table above) over the long-term. Gold mining executives seem to agree: in H2, six of the Fund's GMEs – 87% by market value – either rejected takeover offers or had significant insider buying.

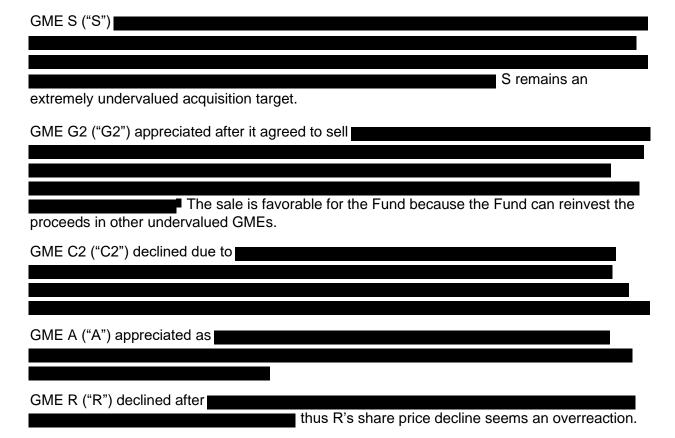
The continued bubbles in <u>US equities</u>, <u>US real estate</u> and <u>bonds (discussed below)</u> indicate that investors believe the current US inflation surge will be temporary. Although current labor and supply-chain problems may be temporary, US government (USG) debt is not and remains at levels that have almost always led to government default, even in developed nations. Thus, ultimately, inflation should accelerate, the bubbles should burst and gold should skyrocket.

Portfolio Detail

The Fund's portfolio is summarized below:

	Portfolio	Weight	H2 '21 Return	Price /		
Security	Dec-21	Jun-21	Contribution	Intrinsic Value		
GME S	29.5%	27.1%	-1.7%	21.5%		
GME G2	14.8%	11.4%	2.8%	32.9%		
GME A	12.5%	11.1%	3.3%	51.2%		
GME C1	12.0%	13.7%	-1.0%	20.4%		
GME N	8.6%	9.3%	-0.6%	25.0%		
GME D2	8.1%	9.2%	1.7%	25.8%		
GME C2	7.4%	8.4%	-2.4%	31.7%		
GME R	6.1%	9.9%	-4.4%	11.5%		
Total GME	98.9%	100.0%	-2.3%			
Cash	1.1%	0.0%	N/A	100.0%	N/A	N/A
Total	100.0%	100.0%	-2.3%			

Prices are as of Dec. 31. Returns exclude performance allocation.



Bond Misconceptions (Part II)

As mentioned above, a USG debt crisis should send gold soaring and burst the bubbles in bonds, <u>US equities</u> and <u>US real estate</u>. (Bulls usually rationalize the equity and real estate bubbles by citing low interest rates.²) In my <u>year-end 2016 letter</u>, I rebutted six common arguments for why the USG won't have a debt crisis. I rebut four more below:

#1: The Fed can halt inflation by hiking interest rates as it did to end the 1970s inflation

From 1979-81, the Fed hiked the federal funds rate (FFR) by ~1000bps to curtail inflation. In 1979, however, the USG's debt to GDP ratio was only 31% of GDP and its budget deficit was only 2% of GDP. Thus the hike's impact on the USG's interest burden was manageable. By 1983, the budget deficit had increased only four percentage points – to 6% of GDP.

Today, a 300bp FFR hike – a fraction of the Fed's 1979-81 hike – is easily foreseeable. This would still leave the real FFR³ lower than it has been for 98% of the last 67 years. Even some members of the perpetually optimistic Federal Open Market Committee are projecting a ~300bp FFR by 2024.

Today, however, the USG's debt to GDP ratio is ~120% and its budget deficit is forecast to be ~7% of GDP this year. A 300bp hike should increase the budget deficit to ~11% of GDP.⁴ Since 1991, all 18 other governments with deficits exceeding 11% of GDP and debt to GDP ratios exceeding 110% defaulted within two years.⁵

Thus the Fed could soon be trapped: raising rates could trigger default and not raising them could leave inflation unchecked. Similar dilemmas in other countries have often caused extreme crises (e.g. Argentina, Brazil and Venezuela); the US may soon join the club.

#2 Yields will remain low due to supportive regulations

Due to the Basel III regulations introduced after the 2007-08 financial crisis, many large banks have been required to buy USG debt to comply with liquidity coverage ratios. This is a major reason why US banks' holdings of floating-rate debt issued by the Fed (i.e. excess reserves) have increased from ~\$2bn in 2008 to ~\$4tn in 2021.

US money market fund (MMF) regulations also increased USG debt demand. Since 2016, only MMFs that invest exclusively in USG debt⁶ have been allowed to maintain a stable \$1 price per share. MMFs that hold corporate debt must offer a floating net asset value. This has caused corporate MMF assets to collapse and government MMF assets to increase from ~\$1tn in 2015 to ~\$4tn in 2021.

In total, the Fed, banks and MMFs now hold ~40% of publicly-held USG debt. However, foreigners, who cannot be corralled with regulations, still own about a third of USG debt. Since prices are set by the marginal buyer, if foreigners reassess USG inflation risk, USG bond prices should collapse. Similarly, although Spain's government debt was mainly owned by regulated domestic entities, it needed an EU bailout to end a crisis driven by foreigners selling its bonds. Indeed numerous studies show that governments that borrow from foreigners are much more likely to have a crisis. Conversely, Japan is the only country in my default study with more than 130% government debt to GDP that has not defaulted and that seems largely because it hasn't yet had to borrow much from foreigners.

#3: The Fed will use yield curve control to suppress rates as it did from 1942-47

Yield curve control, which is printing money to buy bonds, causes inflation. Hence inflation averaged 7% per year from 1942-47. Today comparable sustained inflation would almost certainly cause a crisis. However, there was no crisis in 1942-47 because the USG did not borrow from foreigners (see #2 above) and US investors had few other investment options.⁹

(Foreign and gold investments were prohibited.)¹⁰ In addition, US domestic savings was forced higher through wartime prohibitions on new construction, cars and other large purchases.

#4 Demographics will suppress yields

According to the argument, an increasing portion of the world's population has moved into middle-age over the past four decades. Since saving tends to peak during middle-age, increased savings by middle-aged workers may suppress USG debt yields. In addition, increased life expectancies may raise demand for long-term USG bonds.

However, middle-aged investors aren't required to own USG debt in their portfolios and are likely to dump it when they inevitably reevaluate its risk. Large middle-age populations did not prevent the 2008-12 debt crises in Iceland and the PIIGS.

Other

I continue to be the Fund's second-largest investor and continue to have most of my net worth invested in the Fund.

We remain open to new investors, so feel free to distribute the <u>redacted version of this letter</u>.

The Fund's next letter is scheduled for mid-July. Partners' account statements will be uploaded to the administrator's portal this week.

The Fund continues to strive for tax efficiency and has yet to incur any significant short-term capital gains. K-1s should be distributed by February.

I also occasionally post articles relevant to the Fund on Twitter and less frequently on LinkedIn.

The Fund's most important competitive advantage will always be its patient clients, so I greatly appreciate your continued support. Please contact me with any questions or comments.

Kind regards,

Brian Hirschmann Managing Partner

Endnotes

1 While the Fund has

² As discussed in a <u>prior letter</u>, low interest rates do not explain nosebleed US equity valuations because most other developed countries have low rates but far more modest equity valuations

³ The real FFR is the FFR adjusted for inflation (defined as the increase over the last 12 months in the Consumer Price Index for All Urban Consumers)

⁴ A 300bp FFR hike multiplied by the USG's ~120% debt to GDP ratio suggests the USG's interest burden would increase by ~4% of GDP. However, that FFR hike, if sustained, would flow through to USG interest expense over several years because the USG's average debt maturity is more than 4 years. On the other hand, the deficit impact of a FFR hike would almost certainly exceed the USG interest expense increase. That is because higher rates would likely disrupt financial markets, slow GDP growth, lower tax revenue and increase welfare spending. In sum, a ~4% deficit increase seems a reasonable estimate of the near-term impact of a 300bp hike

⁵ Source: IMF, World Bank

⁶ Government MMF holdings include debt issued by the USG, debt issued by US government-sponsored enterprises (GSEs) and repurchase agreements secured by USG or GSE debt

⁷ Publicly-held debt excludes debt held by government trust funds (e.g. social security and Medicare). Debt held by the trust funds is not traded and thus does not directly influence prices

⁸ See "External versus domestic debt in the euro crisis" by Daniel Gros for an example of the relationship between foreign borrowing and government default risk

⁹ The Reserve Bank of Australia abandoned yield curve control in November 2021 after foreign investors started dumping Australian bonds

¹⁰ In 1942-47, foreign countries generally prohibited US dollars from being converted into foreign currency for investment

Disclaimer

The Hirschmann Partnership LP (the "Fund") began operating on October 1, 2014. The Fund's principal objective is to achieve positive market returns primarily through fundamental analysis of small- and microcap equities in U.S. and foreign markets. Hirschmann Capital LLC (the "General Partner") seeks to achieve the Fund's investment objective by identifying equities that are trading at large discounts to actual value. The Fund invests primarily in small- and micro-cap equities in U.S. and foreign markets but also invests in other securities. An investment in the Fund should be considered a long-term investment.

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Performance results shown are for the Hirschmann Partnership LP and are presented net of all fees, including performance allocation, brokerage commissions and other operating expenses of the Fund. Net performance includes the reinvestment of all dividends, interest, and capital gains. The General Partner does not receive any asset-based management fees. For each Class A Limited Partner, the General Partner is allocated a performance allocation equal to 25% of the amount by which the increase in net asset value exceeds a 6% annualized hurdle rate. For each Class B Limited Partner, the General Partner is allocated a performance allocation equal to 33% of the amount by which the increase in net asset value exceeds the S&P 500 Index.

In practice, the performance allocation is earned annually or upon a withdrawal from the Fund. Because some investors may have different fee arrangements and depending on the timing of a specific investment, net performance for an individual investor may vary from the net performance as stated herein.

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