Dear Partner,

Updated results for the Hirschmann Partnership (the "Fund") are shown below. In H2 2022, the Fund returned -32.4% v. 2.4% for the S&P 500.

	Class A Return	Class B Return	S&P 500 Index	MSCI World Index	Gold Miner 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%	-21.3%	-3.6%
2022	-53.0%	-53.0%	-18.1%	-17.9%	-8.6%	-14.5%	-1.2%
YTD 2023	8.7%	8.7%	3.6%	4.8%	12.7%	13.0%	6.6%
Cumulative	19.1%	24.5%	135.8%	91.2%	67.5%	34.5%	59.1%
Annualized	2.1%	2.7%	10.9%	8.1%	6.4%	3.6%	5.8%

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. 20

From '14-20, the Fund outperformed the S&P 500 and Gold Miner Index (GDX) by ~650bps and ~980bps per year respectively. After its '21-22 decline, it is now trailing those benchmarks. While the decline has been disappointing, I'm confident the Fund will recover and outperform dramatically over the long-term.

Gold mining equity (GME) S was the primary reason for the '21-22 decline. I continue to expect S to outperform over the long-term, although this could take longer than previously expected (see <u>GME S</u>). A second reason for the decline was that mining cost increases and flattish gold prices eroded our GMEs' profit margins.

Gold has lagged inflation primarily because investors believe inflation will be short-lived. But that could change soon as inflation persists (see <u>Inflation</u>). Further US government debt remains at a level that makes sustained high inflation virtually inevitable (see <u>year-end 2021 letter</u>). Since ______, gold should appreciate dramatically and our GMEs

should appreciate even more (see Strategy Review).

Portfolio Detail

The Fund's portfolio is summarized below:

	Portfolio Weight		H2 '22 Return	Price /		
Security	Dec-22	Jun-22	Contribution	Intrinsic Value		
GME C1	24.6%	20.8%	-4.6%	15.6%		
GME S	14.0%	27.0%	-22.7%	1.8%		
GME N	13.8%	9.2%	-0.4%	31.0%		
GME C2	12.3%	7.1%	4.9%	54.3%		
GME A	11.7%	15.4%	-8.7%	15.4%		
GME R3	5.5%	Not Held	0.1%	13.3%		
GME O2	3.8%	Not Held	-0.1%	15.1%		
GME F	3.4%	Not Held	0.0%	10.0%		
GME G2	3.3%	3.2%	-1.1%	12.9%		
GME C3	2.2%	Not Held	0.1%	23.3%		
GME E	1.9%	Not Held	-0.1%	13.0%		
GME G3	1.2%	Not Held	0.0%	75.6%		
GME D2	0.9%	0.8%	0.1%	27.2%		
GME R	Sold	13.4%	0.3%	N/A		
Total GME	98.6%	96.8%	-32.4%			
Other Securities	N/A	N/A	N/A			
Cash	1.4%	3.2%	N/A	100.0%	N/A	N/A
Total	100.0%	100.0%	-32.4%			

Prices are as of Dec. 31. Returns exclude performance allocation. GMEs are listed in descending portfolio weight order.

GME S

GME S ("S") has been the biggest drag on the Fund's returns in H2 and '21-22, primarily due to I. In H2, S' stock declined because

The decline was exacerbated by a sell recommendation by a prominent newsletter (with a mediocre track record).

S' project

Hirschmann Capital

S's current share price is unreasonably low. Even in the very unlikely event that second second , S's current market
capitalization would be only ~20% of intrinsic value, although developers with similar world- class deposits trade at ~50% of intrinsic value. ² Were S' Constant Sector , S' current capitalization would be only ~3% of intrinsic value. Thus the Fund has continued to hold S. Assuming Constant Sector , the Fund's cost basis is ~20% of intrinsic value.
Other GMEs
GME C1 ("C1") declined in H2, although its long-term prospects are good because of its
Although would cause a short-term stock drop, C1 should still appreciate over the long-term as its cash flow dramatically improves. Indeed, C1's annual cash flow, should exceed C1's current market capitalization, even if gold prices remain constant.
GME N ("N") declined slightly in H2.
N should not be trading for 60% loss
. N should not be trading for ~60% less than the price of a takeover offer it received just a year ago.
GME C2 ("C2") appreciated in H2. I expect and the second
As GME A ("A")

. I expect

and the Fund's investment should earn a high long-term return.

The acquisition of GME R, **Example 2** closed in September and earned the Fund a ~100% return (**Example 2**). Part of the acquisition proceeds were used to acquire six new GMEs.

Inflation

Inflation expectations are way too low, notwithstanding the extensive publicity about inflation. As inflation expectations rise, gold prices should increase dramatically due to investors' current

Inflation Expectations

Bond investors currently expect only $\sim 2\%$ annual inflation over the next five years. In other words, the market is currently betting that inflation will be tamed quickly. Although overall inflation has slowed, sticky price inflation, which is historically better for forecasting overall inflation, is still rising.⁴ High inflation may be with us for much longer.

According to a study of developed OECD countries from 1970 to 2022, when inflation has reached 8% (as in '22), inflation has historically accelerated over 70% of the time. Returning to 3% inflation usually takes 6 to 20 years, with a median exceeding 10 years.⁵

From 1980 to 1981 Fed Chairman Paul Volker raised the real Federal Funds Rate (RFFR) ~1000bps to quell inflation, after which the RFFR stood at ~9%.⁶ However, that extreme series of hikes reduced inflation by only 500bps, using today's methods of measuring housing inflation—not the 1100bps shown in the official data.⁷ Today, inflation is approximately 400bps above the Fed's 2% target and the RFFR is *negative* 2%. The Fed may need to raise the RFFR almost as much as Volker did to reach its inflation target. As noted in <u>prior letters</u>, the Fed's inflation-fighting tools are severely handicapped by the US government's debt levels, which are much higher now than in 1980: If the RFFR were 9% today, interest expense would consume most federal tax revenue.⁸

Impact on Gold Prices

Gold prices are highly sensitive to changes in **Section**. The supply of gold is relatively fixed in the short-term because mine production is small compared to the existing supply of bullion and jewelry (see <u>2020 year-end letter</u>). As a result, **Section**, the gold price must rise commensurately. For example, if **Section**, gold prices will double.

, goid prices w

During inflation crises,

. From 1974-1980, as five-year

inflation expectations rose from ~4% per annum to ~7.5% per annum,⁹ real gold prices increased more than 2.4X.¹⁰ Today, gold

inflation expectations rise.

, which suggests that gold has enormous upside as

Strategy Review

Although the Fund underperformed in '21-22, my strategy is not broken. I still expect the Fund to outperform dramatically over the long-term. Here's an overview of the reasons.

Valuations

Our GMEs' valuations are extremely attractive compared to the GDX ETF or the S&P 500.¹¹ The Fund holds small **and the set of the s**

(For example, Newmont, comprising 13% of the GDX, trades far above intrinsic value.¹²)

Mining Costs

Mining costs are influenced by general inflation because both include labor, vehicles, fuel and electricity. The premise for holding GMEs is that gold prices will increase more than mining costs, and that our GMEs in particular will increase more because of their lower (albeit still safe) margins.¹³ That didn't happen in '21-22, as mining costs increased ~20% and the gold price fell.

Going forward the increase in gold prices should far exceed any increase in mining costs, due to rising inflation expectations (see <u>Impact on Gold Prices</u>)—and the potential implosion of bubbles discussed in prior letters, such as China, US equities and US real estate. Further our GMEs' mining and construction costs should increase less than general inflation.

Thus I expect our GMEs' profits to

soar and easily erase their temporary underperformance.

Other Positives

C2 should rebound due to . N and A should benefit from

. Over the long-term C1 should benefit from its

Although the market has priced S to fail, S could skyrocket due to

Other

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

The Fund's next letter is scheduled for mid-July. However, I expect to provide performance updates before then. Partners' account statements will be uploaded to the <u>administrator's portal</u> this week.

Hirschmann Capital

Last January I was <u>interviewed</u> by Palisades Radio regarding gold, inflation and the bond bubble.

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

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

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

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

Intrinsic value is the estimated present value of a mine's future gold revenue, at current gold prices,
all costs, discounted at 14%.
In calculating S' intrinsic value
. That is a standard method for estimating future equity issuance.
Sticky prices are adjusted infrequently. Examples include medical services, education, personal services
and housing. When these prices are set, they may incorporate expectations about future inflation to a
reater degree than prices that change on a frequent basis. For a sticky price inflation overview, see
ederal Reserve article. For a summary of recent trends in sticky price inflation, see this article
"History Lessons: How 'Transitory' Is Inflation?" by Rob Arnott and Omid Shakernia
The real Federal Funds Rate is the nominal Federal Funds Rate less the year over year percentage
change in the CPI
"Comparing Past and Present Inflation" by Marijn A. Bolhuis, Judd N. L. Cramer and Lawrence H.
Summers
It would take a few years for US government interest expense to consume most of tax revenue beca
not all US government debt would immediately be refinanced at the higher interest rate
Precisely estimating five-year inflation expectations during the 1970s is impossible since inflation-
protected US government bonds did not exist. My estimate assumes five-year real yields were roughly
constant from 1973-1980. Survey data shows that one-year inflation expectations increased ~500bps
rom 1974-1980. Five-year inflation expectations probably increased less than one-year inflation
expectations because longer-term inflation expectations are typically more stable
^o These numbers are estimates
¹ Based on the cyclically-adjusted price-earnings ratio, the S&P 500 remains more expensive than it
99.7% of the time from 1871-1995
² Assuming a 10% discount rate
³ A 1% increase in expected future gold prices, all other things being equal, will lead to a bigger
percentage increase in expected future profits for a gold mine with a 20% profit margin (5% increase i
expected future profits) than for a gold mine with a 50% profit margin (2% increase). Similarly, a 1%
ncrease in expected future mining costs, all other things being equal, will lead to a bigger percentage
lecrease in expected future profits for a gold mine with a 20% profit margin (5% decrease in expected
uture profits) than for a gold mine with a 50% profit margin (2% decrease)
⁴ Although China is emerging from a pandemic lockdown, it continues to have a debt, infrastructure a
eal estate bubble.

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 micro-cap 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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