Cαpital Risk

GLOBAL PORTFOLIO STRATEGY

China's Emerging Peak



cargo ships littering the port of Los Angeles signal supply chain issues, not a prolonged inflation threat. While investors rightly fret about inflation, the greater risk may lay with China's real estate bubble. The unraveling of a credit bubble can bring a debtdeflation spiral that counters the narrative of the moment, inflation. Deflation would leave investors poorly positioned as temporary inflation distracts them from the greater threat. Regardless of the locale, investors are now beholden to the

Testing Policy. Reopening the global economy brings inflation

pressures as supply chains lag accelerating demand. Certainly,

Photo: Robert Nymani on Unsplash

Federal Reserve's monetary policy exit and China's ability to deflate their debt bubble. While political scientists await the validation of capitalism or communism, investors hold their breath.

"

The U.S. Federal Reserve and China's Communist Party face tests to their abilities as they withdraw their Pandemic-induced monetary policy.

Success will mitigate the inflation risks, while failure may bring a global debt-deflation spiral. The global economy hangs in the balance.

- Jason Prole

Highlights

- **U.S Equity** momentum requires nimbleness with active management.
- Emerging Market Equities are a risky proposition as uncertainty grows.
- **Interest rates** deliver negative real rates and further losses as they rise.
- **Credit spreads** offer little reward for their risk.
- **Copper's** ascent is likely over as supply rebalances to demand.
- **U.S. Dollar** strength will continue as higher rates entice investors.

"

Borrowing Binge. The pending collapse of Evergrande brings concerns about the viability of the Chinese economy and a possible "Lehman" moment. Unquestionably, the debt-fueled growth since the financial crisis is remarkable for its speed (Exhibit 1). In recent memory, only Spain produced such a rapid acceleration of debt. Yet its economy is about one-tenth the size of China's, and it does not account for roughly a *fifth of the global economy*. The scale difference determines whether the unraveling is a *local or global phenomenon*. The world awaits the outcome.

As Spain discovered (and Japan before it), the bursting of a debt-fueled bubble can hamper growth for a generation. The hope is that *capitalism with Chinese characteristics* will prevent the occurrence of a *Minsky Moment*. Indeed, the centralized structure of the Chinese Communist Party permits authoritative action when required. The trouble is that history is not kind to *any political regime* when a debt bubble bursts. A critical dimension of success in addressing a debt bubble is the capacity of the country to take the liabilities on its balance sheet. As Japan showed after its bubble burst, this willingness can avoid the immediate collapse while delivering *lower future growth*.



Exhibit I. Total Debt as a Percent of GDP

China's debt

increase is

unique in

speed.

Source: Bank for International Settlements, retrieved from FRED.

Consuming Debt. A defining outcome of whether the country nationalizes debt is usually a function of where the debt accumulates. Outside of government, there are only two sectors: the household or non-financial companies. Indeed, the debt explosion in China saw household debt reach a level comparable to its peers in *about a decade* (Exhibit 2). The speed of the ascent has no modern parallel. The closest is Spain's bubble, yet it unfolded over two decades and started higher. While there are no precedents for the speed of China's household debt accumulation, there is hope.

The fortunate dimension of the Chinese household debt burden is that its level is not as stretched as the U.S. or Spanish incidents. Its current level is consistent with the average developed market. The challenge is both the scale of the debt and the GDP per capita of China. Its debt would exceed the level of the G-7 countries, excluding the U.S., while possessing a per capita income that is one-sixth of the U.S. and one-third of Spain's. Indeed, the ability to withstand a debt crisis is a function of the *capacity to service the debt payments*. China stands alone in this regard: no country has achieved this scale of debt at this low of an income level. Herein is where the challenge ahead resides.

Exhibit 2. Total Household Debt as a Percent of GDP





Source: Bank for International Settlements, retrieved from FRED.

Booming Credit. China's residential property boom is well known. The driving force beyond this boom is their local governments, which are limited in their borrowing capacity. Yet, they circumvent this restraint by selling property rights to developers using off-balance-sheet financing. While direct measures of local borrowing are opaque, Evergrande can attest to the copious corporate borrowing. Between national growth targets and plentiful availability of credit lays an enormous growth in debt.

Since the financial crisis, Chinese non-financial credit jumped more than 60 *percent* as a proportion of GDP (Exhibit 3). The level well exceeds the peaks in Japan in the early 1990s and Spain during the Financial Crisis. This level has historically been a place where the credit boom ends. Indeed, if not for the Pandemic and the fiscal and monetary stimulus it delivered, *the Chinese credit bubble may have popped*. Instead, corporate and government borrowing ramped up to fight the ravaging effects of the Pandemic and postpone the credit comeuppance for another day. The impact of this increased credit may *make the reckoning more difficult in the future* as the capacity of the national government becomes more limited.

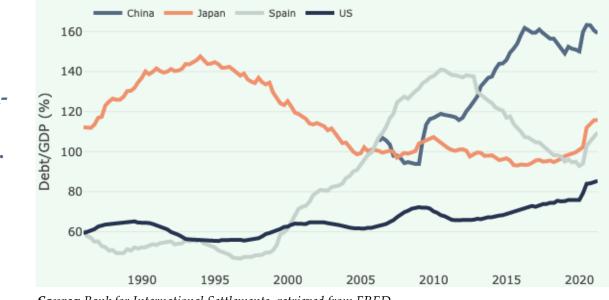


Exhibit 3. Total Private Non-Financial Debt as a Percent of GDP

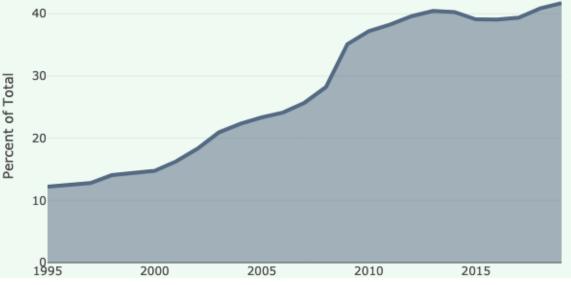
Source: Bank for International Settlements, retrieved from FRED.

Future Investment. A hallmark of Keynesian economics is government expenditures during times of anemic demand, like those that can occur during the bursting of a credit bubble. China's challenge lies in its prior investment, which accounts for *40 percent of the global total*. It is one thing to update dilapidated bridges and highways, which the U.S. seeks to do with its current Build Back Better bill meandering through Congress. Building more excess capacity when bridges to nowhere and empty apartment buildings *already exist* is another thing.

In an environment that followed Keynes' advice to dig holes and fill them in, it's not evident that borrowing to do more of the same is additive. Yet, it may be China's only choice as the political legitimacy of the communist party hinges on *continued growth*. Failure to deliver further growth could incite domestic turmoil. A debt deflation spiral after a generation of development could ignite a revolution. They are aware of these possible outcomes. Their challenge is to keep the music playing while not ending up in Japan's situation of continual debt expansion. As their tech titans recently discovered, now is a perilous time to be a capitalist in China, as they are the most likely target of any rebalancing.



China's fixed investment leads the world.



Source: OECD. World is OECD and China combined. Annual data through 2019. CRM Calculations.

Braking Downhill. A further challenge for China is that the demographic tailwind they enjoyed for five decades is now a headwind (Exhibit 5). A young, dynamic workforce is easier to cajole into a nationalist fever as their youth naturally aspires to greatness. Yet, the working-age population for China is now in terminal decline (Exhibit 5). The investment boom and debt surge that rode along with it amplifies this situation because the marginal product of increased investment is limited. China's growth prospects appear constrained without the demographic dividend to lift growth or the ability to borrow growth from the future. Yet, the situation is not terminal.

Growth is as much a function of productivity as it is of population. The ability to do more with less is the defining characteristic of the past two hundred years of civilization. While China faces the same demographic fate as Japan, with a declining workforce and a large population of retirees, its demise may have to wait for the next decade. As the world undergoes profound technological change, a segment of the population is more amenable to it and better able to leverage its productivity-enhancing benefits. This group is where there is hope for China and the world to avoid a debt-deflation spiral.



Exhibit 5. China's Workforce Population (Ages 20-65 Years)

Source: U.N. Population Division. CRM Calculations.

Peak Productivity. The confluence of youth and experience is the primary driver of productivity. While most young people enter the workforce believing they already know everything; most are not proficient until after more than a decade of learning the ropes. Critically, the proportion of 35-50 years old to 20-34 years old in the workforce is a *critical determinant of productivity*. The latter group, the Learners, bring enthusiasm yet lack experience. The former group, the Producers, brings expertise and adaptability as they strive to excel in their careers. Herein lays China's saving grace.

The Producers cohort will expand in China for the next decade (Exhibit 6). This group should continue to increase productivity and offset some of the declining growth from their shrinking workforce. Japan faced a similar fate in the 1990s and was able to postpone their demographic reckoning. China can follow a similar path and alleviate the corporate debt burden by moving it onto their balance sheet. This action would permit the confluence of demography and technology to augment growth that eases the debt burden. The choices for the global economy are stark: a worldwide debt liquidation that brings deflation or slower growth with modest inflation. Best plan ahead.

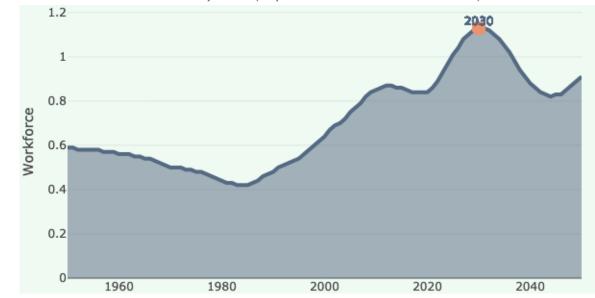


Exhibit 6. China's Productivity Peak (Population of Producers/Learners)

Source: U.N. Population Division. CRM Calculations. Population ratio of Producers (35-49 years old) to Learners (20-34 years old). A higher ratio reflects higher potential productivity.

China's productivity should increase for a *decade*.

s the unmatched monetary stimulus fades, so do the equity markets. Lofty valuations and retreating monetary stimulus are a toxic brew for a bull market. The season is another challenge as the fourth quarter approaches and the onslaught of new earnings that it brings. The catalyst of a crash is the realization that the castles in the sky can no longer levitate. While the canary chirps in China, the reality is that a repudiation of the technology darlings is the most likely spark that ignites the fuse. Yet, these unicorns are the ones leading the equity market.

The most concerning aspect of the last quarter was the dispersion of the sector returns (Exhibit 7). Declines in the Materials and Discretionary sectors are hallmarks of a late-inning ball game for a bull market. In contrast, the Energy and Financials sectors remained positive. This outcome is counter to the prior sectors as an aging bull market increases the credit risk to which Financials are susceptible and the pending decline of commodity prices as demand wanes. As always, bear markets are all unique in their drivers yet similar in their declines. The challenge for investors is managing the risk prudently as it is the season of volatility.

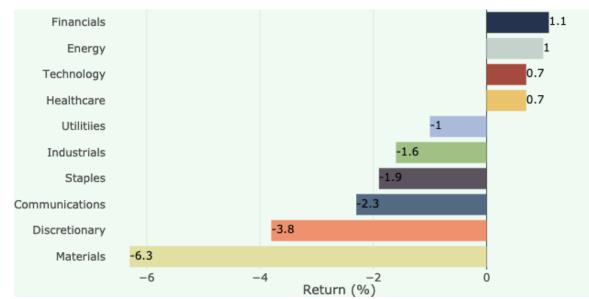


Exhibit 7. U.S. Equity Sector Returns (Third Quarter 2021)

Source: IEX Cloud. CRM Calculations. Total returns from June 30th to September 30th, 2021.

Finance & technology lead the way.

One of a kind. Every bull market has a unique narrative that propels the masses to invest. The current bull market is not different, with U.S. growth stocks leading the charge (Exhibit 8). The surprise is that no other style delivered a material gain this quarter. When market breadth disappears, the bull market is indeed in the late innings. The exit from Emerging Markets equities to U.S. large growth highlights the dispersion. Investors seek refuge in liquid markets so when they music stops, they can find an exit. This statement highlights the challenge of the moment: how to manage equity risk.

The dispersion of sector returns reflects investors managing risk as they exit from smaller capitalization stocks and markets. The risk that Evergrande presents to China and Emerging Markets is material. Seasoned investors remember the disruption in 1997-98 when the Asian Crisis unfolded, and investors could not find an exit. While these markets are now more mature and larger, they remain small relative to the U.S. behemoth and its technology juggernauts. For perspective, each of the FANG stocks has a larger market capitalization than *every Emerging Market country except China*, while only modestly smaller than India. Size matters.



Exhibit 8. Global Equity Style Quarterly Returns

Source: IEX Cloud. CRM Calculations. Total returns from June 30th to September 30th, 2021.

U.S.

haven

during

Ethereal Value. Expected *future* profits are a critical determinant of *present* value. This trite statement is the crucial measure of financial analysis. Of course, predicting the market leaders' decades hence is a Herculean task. The investors of Blackberry know that robust profits and a dominant market share don't preclude a quick fall from grace as a new product enters markets (i.e., Apple's iPhone). Yet, critical to these future winners is *current* profits, no matter how meager. Profits are where the *current* problem arises.

Small stocks are the entry point for most IPOs. In a sign of the times, earnings for IPOs are as rare as the unicorns that investors chase (Exhibit 9). In an investment environment where four out of five new listings have *negative earnings*, the search for value is elusive. Critically, the parallel to the Technology Bubble at the turn of the millennium is apparent. This situation gives further credence to the argument that markets are indeed frothy, particularly in the U.S. An investor seeking value should look elsewhere. Investors should focus on changes of liquidity as the third-quarter earnings season unfolds. Momentum is two-sided.

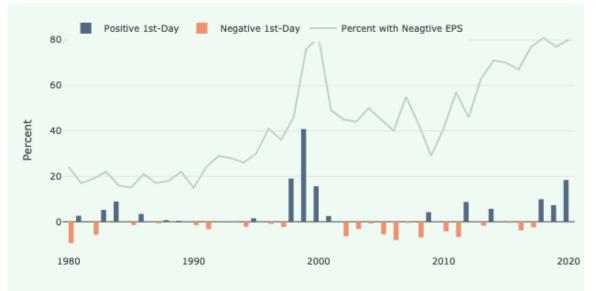


Exhibit 9. U.S. Initial Public Offerings Percent with Negative Earnings & Initial Returns

Source: Ritter, Jay R. 2020. Initial Public Offerings: Updated Statistics. Available at: https://site.warrington.ufl.edu/ritter/ipo-data/

Price gains belie *negative earnings*.

Peerless Performance. China is not without its technology titans. Yet, their size is no match for their U.S. rivals. Apple alone exceeds the top five companies in China. The difference is reach. China's technology darlings are predominantly a Chinese service, which is an enviable position for most companies, given the size of their domestic market. In contrast, the U.S. technology leviathans address all global markets outside of China. The scale difference is a factor of six and contributes to their valuation gaps. The strategic mantra to *act locally and think globally* shows the void in China's technology prominence. Whether the limits are political or linguistic are irrelevant to the conclusion: U.S. technology serves larger markets.

The performance difference between the U.S. and the rest of the world continues unabated (Exhibit 10). While the China technology giants lag their U.S. peers, the more significant issue is the absence of a technology colossus in the other developed markets. Most dimensions of technology proliferation are borderless, yet there is no European technology Goliath. In most regards, the Chinese technology titans merely leveraged their domestic market's lack of initial accessibility and replicated the U.S. leaders. While imitation is a form of flattery, it helps support continued *U.S. market leadership*. Indeed, leaders lead.





Source: IEX Cloud. Total returns Sept 2011 to Sept 2021. Ratio increases reflect US outperformance.

U.S. equity leadership endures.

Valuing Growth. The nascent retracement of U.S. Growth versus Value equities over the last year unsettled investors (Exhibit 11). Value investors remember well their decades of prominence before Growth began its reign. These investors eagerly await their return to the podium as a reward for their stalwart investors. Yet, if it weren't for the popping of the technology bubble in 2000, Growth investors would be enjoying *four decades* of leadership. As always, the past is not prelude, and the crucial dimension is *prospects*.

Technology continues to remove mundane tasks from our lives and increase scale in business. Yet, many opportunities remain for non-technology companies to deploy technology to increase efficiency and reach new customers. The Pandemic introduced new business models of how and where people work. The greatest beneficiaries of these new models are not the technology titans but those companies that have yet to make the transition. Currently, legacy value companies may transition into future growth companies as they shed fixed assets for intangible services. For those seeking future value, look towards industries where technology can evolve their business models. The future may not mirror the past, yet it will rhyme.



Exhibit 11. U.S. Equities Relative Performance by Style (Growth/Value)

Source: IEX Cloud. Total returns Sept 2011 to Sept 2021. Ratio increases are growth outperformance.

Growth's

the end.

reign is near

Discerning Size. The Pandemic brought a divergence between large and small-capitalization stocks that is unparalleled in its speed (Exhibit 12). The onset of the economy's closure saw capital plow into large stocks as a haven that saw them rise over 25 percent versus smaller stocks. As the election unfolded, it became evident that both future stimulus and a vaccine would arrive. Small stocks took the signal and led the charge by appreciating over 30 percent versus their larger brethren. Since the first quarter, large stocks recouped half of this gain. Indeed, the decision between large and small stocks was more about *tactics than strategy*. The future may be different.

Forecasting future returns is a perilous task wrought with uncertainty. While small stocks historically outperformed larger stocks, the timing is tenuous. More critically, it's not certain that choosing anything except the future market leaders matters as only the top *four percent of stocks matter*.¹ Therein lies the trouble: predicting future market leaders' decades hence. Given the frothiness of the IPO market, large stocks may manage risk better.



Exhibit 12. U.S. Equities Relative Performance by Size (Large/Small)

Source: IEX Cloud. Total returns Sept 2011 to Sept 2021. Ratio increases are large outperformance.

Size is a

tactics.

matter of

¹ Bessembinder, Hendrik, "Do Stocks Outperform Treasury Bills?", *Journal of Financial Economics*, 2018, 129, 3, pp. 440-457. https://doi.org/10.1016/j.jfineco.2018.06.004

Productive People. The alluring populations in the Emerging Markets draw investors for their potential growth. Yet, people alone are not sufficient. Growth requires enhanced productivity through capital investment that delivers efficiency gains. It is the virtuous combination of more people operating more efficiently that enables enduring growth. The U.S investment performance over the last decade, despite anemic population growth, belies that population is a crucial driver (Exhibit 13). Indeed, the critical determinant is the ability to *enhance productivity regardless of location*.



Exhibit 13. Global Equities Performance of U.S./Emerging Markets

Source: IEX Cloud. ITOT & EEM total returns. Ratio increases reflect U.S. outperformance.

While economic growth will transpire in the Emerging Markets, it's not evident that the capital gains will accrue unless they take China's posture of excluding the U.S. technology behemoths to permit their own technology proliferation. The trouble with the strategy is that it *limits them to their domestic markets*. In a world of segmented markets, much is gained from diversification. Yet, profit growth is lower from duplicated resources deployed in each region. The decision between *scale and scope is political*. Investing in the Emerging or Developed Markets delivers different risk profiles. Investors need to determine *their risk attitude* before allocating, with diversification managing the risk and reward.

The U.S. provides shelter as the storm emerges.

Cash Earnings. Dispersion is a hallmark of investing because it enables stock and asset allocation. If value were similar everywhere, investment decisions would not exist. While a trite statement, it highlights the importance of the *current dispersion*. Between and within markets, the valuation gaps are material (Exhibit 14). As a group, the U.S. cash flow and earnings metrics are well above their peers in the Developed and Emerging Markets. In contrast, within region cash flow multiples can vary up to twenty times. Indeed, valuations provide *opportunities within and across regions*.

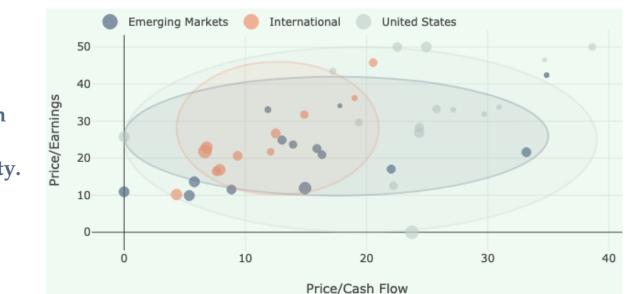


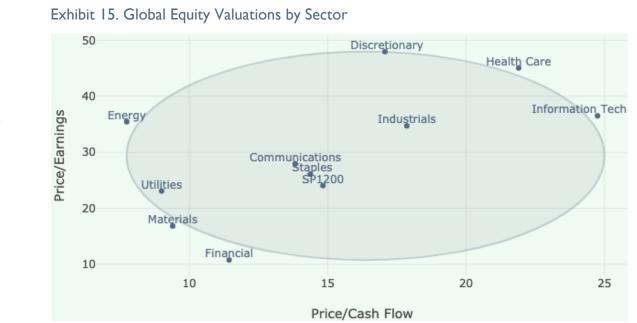
Exhibit 14. Global Equity Valuations by Region and Sector

Source: S&P Indices. Size of the marker reflects the dividend yield (larger is higher). Valuation is limited to zero and fifty for ease of exposition. As of September 2021.

International markets provide consistent valuations regardless of the measure (e.g., P/E or P/CF). This data artifact suggests that the measurement does not distort the region. In contrast, the other region faces wide cash flow dispersion (i.e., Emerging Markets) or earnings variation (e.g., U.S.). The investor faces the challenge of *choosing either* the region or the valuation measure. Cash flows are less susceptible to manipulation and are a more reliable starting point. Thus, investors should frame decisions around the durability of cash flows. In contrast, the regional decision is between people and productivity, with the latter usually reigning supreme. *Allocation is critical in this environment*.

Dispersion provides opportunity.

Mean Aversion. The favored sectors during the Pandemic, Health Care & Discretionary, are not a surprise. The former serves an addressable need, while the latter benefits from stimulus payments. Information Technology's lofty valuations are not surprising in an era of technology transformation and social conscience (Exhibit 15). The challenges are that the former benefit from a temporary distortion while the latter already serve their addressable market. High valuations require high growth prospects: it's not evident that there are present for the current sector leaders.



Source: S&P Indices. Valuation limited to zero and fifty for ease of exposition. As of September 2021.

As the Pandemic recedes from view, other sectors will emerge. The advances in technology suggest that Communication may receive a boost. At the same time, Staples will benefit from the Millennial generation entering their prime household formation years, which the Pandemic postponed. In contrast, the Financial and Energy sectors are well valued yet face uncertain prospects. The former is due to uncertainty as monetary and fiscal stimulus fade. The latter is from the transition to a cleaner energy future. As these tactical themes unfold, *managing portfolio risk* through tactical asset allocation or stock selection is critical. Active management takes *compensated risks*.

Sector dispersion suggests stock selection. Developed

market cash

flows offer

value.

Equity Markets

Regional Differences. The U.S. markets are a valuation outlier matched only by the oil-based markets in the Middle East (Exhibit 16). Upon closer inspection, a distinct divergence is evident in developed and emerging markets. More favorable cash flow multiples exist in the Developed Markets, while earnings are better in the Emerging Markets. The implicit decision is between cash flow growth from productivity or earnings growth based on population. As acolytes of business schools learn, a business's ability to *generate cash* is crucial.

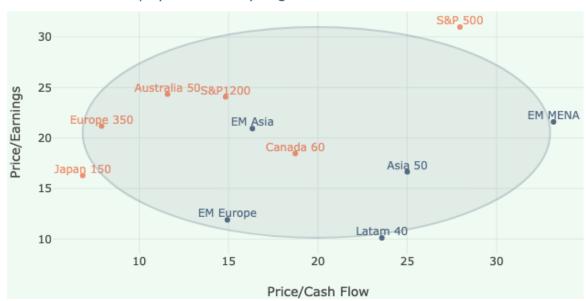


Exhibit 16. Global Equity Valuations by Region

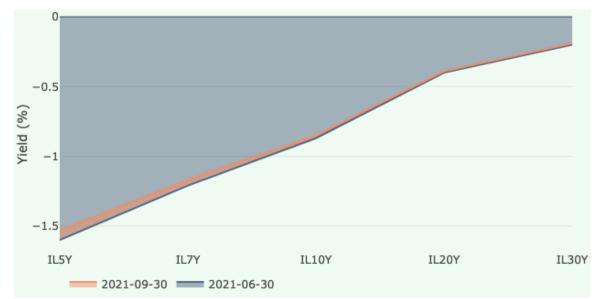
Between the Developed and Emerging Markets, the compelling choice is for the non-U.S. developed markets. While within the Emerging Markets, the case is strong for Europe and Asia. Japan and EM Asia offer reasonable valuations attached to a global export engine primed for a worldwide economic rebound. Their European counterparts could also play a role on a country-specific basis. The U.S. investor's challenge is managing the currency exposure. Thus, *portfolio design* is critical to success in this divergent investing landscape, whether investing in *factors, regions, or countries*.

Source: S&P Indices. As of September 2021.

Interest Rates

Price Protection. U.S. Treasury Inflation-Protected (TIPS) yields remain negative across the term structure (Exhibit 17). While negative yields suggest investors are worried about deflation, the reality is that they are concerned about *inflation*. TIPS protect against future price increases while guaranteeing against price declines. The holder is thus long *two options*: a call on future price increases while hedged against lower prices.² These options come at a cost. Currently, TIPS indicate that the prices of the options are greater than the yield on nominal Treasury bonds, which is understandable in an environment where nominal yields *declined materially*.





Near-term inflation protection is expensive.

In time, investors will determine whether it was worth it to pay 1.5% to hedge against inflation that has averaged a parallel rate over the last two decades. The pricing indicates that the risk is a medium-term phenomenon (i.e., the next five years) rather than an enduring risk. As with all forecasts for decades hence, there is a great amount of uncertainty. Yet, investors place a higher premium on the short-term. Best think long in this situation.

Source: Federal Reserve Economic Database

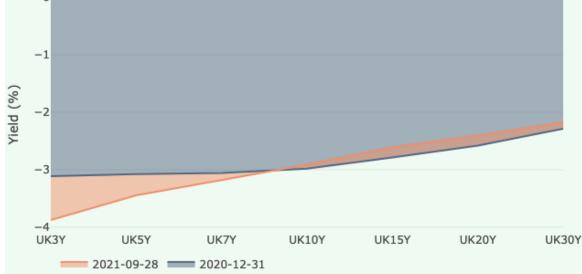
² A holder of a long position in a financial instrument (e.g., stocks) is long a call option (i.e., benefits from price increases) and short a put option (i.e., loses with price declines). The TIPS buys back the short put option, thus hedging against price declines.

Interest Rates

Costly Hedging. Most other developed markets share a similar yield curve dynamic as the U.S. The situation is materially different for Gilts in the United Kingdom. Real yields are about double their developed markets contemporaries at more than minus two percent for the next thirty years (exhibit 18). This outcome reflects the ongoing uncertainty caused by Brexit, which has induced shortages on top of the Pandemic-related supply challenges. At this implied price level, an inflation spiral is an evident concern for the markets. Anything less could be costly for these bondholders.







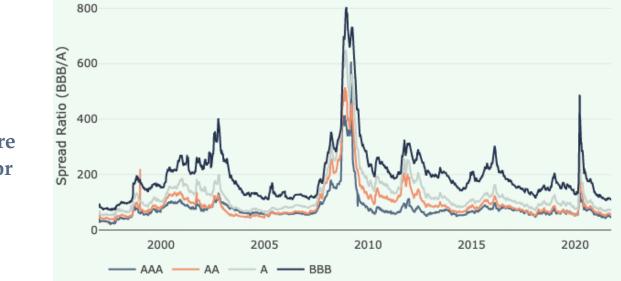
Source: Bank of England Database

A bond investor faces minuscule nominal yields and negative yields in real terms. With brewing inflation in the global system, the risk to bondholders is material. Bond investors of all types must evaluate if the fixed yield is worth the risk. Unless the investor is matching a specific cash-flow profile, the sovereign bond markets offer a poor trade-off. There is a role for sovereign bonds in a diversified portfolio that trades off equity and interest rates risks. Yet the duration of the position should be short. In this context, it is about the preservation of capital, more than the return on capital. *Portfolio design is critical*.

Credit Spreads

Spread Risk. Equities are the exuberant cousin of the staid bond markets. Yet, the current situation suggests that they may have equal bouts of exuberance. Current spreads are at levels not seen since before the Tech Bubble (Exhibit 19). The differences between now and then are material. Budget deficits replaced surpluses, debt levels have at least doubled depending on the market, and growth is much more modest. The pending exit of Federal Reserve support from the bond markets is a leading indicator that *spreads will widen*.





Credit spreads are *too low* for the risk.

Source: ICE. Federal Reserve Economic Database

With inflation above target a more pressing concern, credit spreads provide limited compensation for both risks. This outcome is acute when supply chain issues compress margins, which pressures the cash flows available to service debt. Notwithstanding high valuations in the equity markets, a combination of equities and sovereign bonds may offer a more favorable return-to-risk profile. Even cash flow investors may find better *dividend yields* than bond yields. Indeed, it's *not evident* that credits offer sufficient reward for their risk. Thus, if an investor takes the company-specific risk, a well-structured portfolio may prudently manage the risk factors. *Risk requires reward*. Metals are

retreating.

Commodities

Coming Down. The Pandemic recovery was well expressed in the rise of copper, which doubled in value from peak to through (Exhibit 20). This jump delivered a price three times the average value of the prior three decades and a *forty-five-year high*. This movement suggested an enormous increase of demand or supply constraints, with the latter the most likely driver. The continued reversal from its high indicates that this outcome was not a structural change and merely a *temporary* condition.

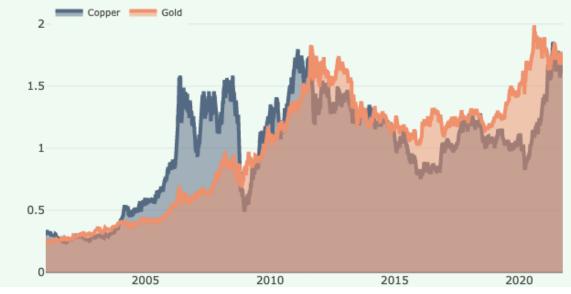


Exhibit 20. Price Ratio of Gold and Copper to their Average Values

Source: Yahoo Finance. CRM calculations.

Gold is a different commodity because it has few industrial applications. Its price derives from its role as a store of value during uncertain times or unexpected inflation. These traits are where Gold disconnects from the inflation worry expressed in other markets, as its price continues to decline from its Pandemic Peak. This movement usually suggests that gold investors are little concerned with the nascent inflation or seek reward in other asset classes. Gold and copper share common pricing in the U.S. Dollar. Their decline is less a signal of inflation or economic concerns and more a reflection of U.S. dollar strength. Indeed, this action is concerning because the Dollar is usually a haven during *uncertainty*.

Currencies

Reserve Currency. As uncertainty enters the financial markets, capital flows to the U.S. and the Dollar appreciates. As uncertainty wanes, so does Dollar demand. During the third quarter, the Dollar rose against the major currencies (Exhibit 21). Whether the catalyst was uncertainty or higher inflation delivering higher yields to investors is uncertain. What is certain is that capital is flowing to the U.S., particularly from Emerging Market equities, as the Evergrande situation in China rattles those markets. Room remains for these trends to persist as investors await clarity on the impact of uncertainty in China and unexpected inflation on the global economic recovery.





U.S. dollar supremacy is not over.

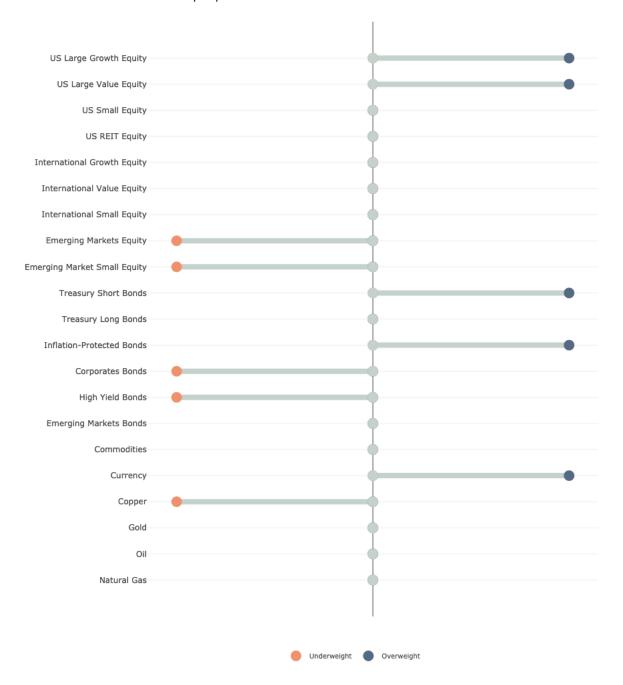
Source: Alphavantage. A higher level indicates a stronger U.S. dollar.

Continued U.S. economic leadership is built upon a superior vaccine roll-out in the short term and technology prominence in the long run. Critically, they both provide a means to mitigate inflation pressures by maintaining a strong currency. This outcome is crucial as higher debt service arrives and U.S. fiscal policy recedes. As global supply meets demand, inflation pressure *should* fade. Yet two policy outcomes are critical: the Fed's monetary policy exit and China's actions to deflate their real estate bubble. The investor's challenge is that either's success will mute inflation while failure may deliver a 1970s redux. Investment management is *critical* during these interesting times.



Exhibit A1. Tactical Asset Allocation Positioning

Six-to 18-month asset allocation perspective



Note: Positioning is indicative of the themes discussed in this report and valid as of the report date. Views are subject to change. These statements are forward-looking, and there are no assurances that such events will transpire. The positioning does not reflect actual positions and does not consider an investor's objectives, risk preferences, or their current asset allocation. Seek professional advice when undertaking any investment program.



Exhibit A2. Asset Class Performance

Sector	ETF	QTD	YTD	One-Year	Three-Year	Five-Year
Global Equity	ACWI	-1.3	10.9	23.2	12.8	13.5
Global Equity xUS	ACWX	-3.7	5.6	20.7	7.9	8.9
US Total Market	ITOT	0.0	15.2	27.4	16.0	16.8
US Large Cap	IVV	0.6	15.9	25.2	16.2	16.9
US Growth	IUSG	1.6	16.1	23.3	19.9	20.8
US Value	IUSV	-0.9	15.7	30.2	10.7	11.6
US Mid	IJH	-1.8	15.5	38.9	10.6	12.8
US Mid Growth	IJK	-2.0	10.1	30.0	11.3	13.4
US Mid Value	IJJ	-1.7	20.9	48.6	9.0	11.2
US Small	IJR	-2.9	19.9	50.0	8.2	13.7
US Small Growth	IJT	-1.7	14.5	42.3	8.6	14.8
US Small Value	IJS	-4.0	25.2	57.6	7.0	11.9
US REIT	USRT	1.0	23.2	32.9	9.0	6.7
International	EFA	-1.1	8.4	22.9	7.9	8.9
Int Growth	EFG	-0.8	6.4	19.6	11.4	11.3
Int Value	EFV	-1.8	9.5	24.7	3.5	5.9
Int Small	SCZ	0.3	9.9	28.0	8.6	10.7
Emerging Markets	EEM	-8.6	-2.1	14.8	7.6	8.8
EM Small	EEMS	-3.3	15.5	39.9	11.4	9.7
US Aggregate	AGG	0.0	-1.7	-1.1	5.2	2.9
US Corporate	USIG	-0.2	-1.5	1.1	7.0	4.2
US Treasury	GOVT	0.0	-2.0	-3.1	4.5	2.1
Treasury 1-3y	SHY	0.0	-0.1	-0.1	2.5	1.5
Treasury 3-7y	IEI	-0.1	-1.6	-1.7	4.3	2.2
Treaury 7-10y	IEF	0.0	-3.4	-4.4	5.6	2.3
Treasury 10-20y	TLH	0.5	-6.7	-8.7	6.3	2.4
Treasury 20y+	TLT	0.4	-7.5	-9.6	8.2	2.9
US Mortgage-Backed	MBB	0.1	-0.8	-0.6	3.6	2.1
US Municipal	MUB	-0.4	0.3	2.3	4.6	2.8
US Inflation-Protected	TIP	1.7	3.2	4.5	6.9	4.3
US High Yield	HYG	0.3	3.0	7.9	5.6	5.4
Government Bonds	IGOV	-1.7	-7.7	-3.8	2.1	0.9
EM Bonds	EMB	-1.2	-2.6	1.1	6.1	3.4
Oil	USO	5.4	59.2	71.9	-23.6	-8.7
Gold	GLD	-0.9	-7.9	-11.2	13.1	5.6
Dollar	UUP	1.9	4.4	1.6	1.2	1.0
Commodities	GSG	4.8	36.7	49.9	-1.1	3.4



Artful Questions. Scientific Solutions. TM

For more insight, please contact:

Dr **Jason Prole** CFA CAIA FRM Managing Principal

Capital Risk Management LLC 213-459-3332 | 415-373-7152 contact@capitalriskmanagement.com

www.capitalriskmanagement.com Los Angeles | San Francisco

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