August 5, 2017

Dear Investors,

History has proven that credit bubbles always burst. China by far is the biggest credit bubble in the world today. We layout the proof herein. There are many indicators signaling that the bursting of the China credit bubble is imminent, which we also enumerate. The bursting of the China credit bubble poses tremendous risk of global contagion because it coincides with record valuations for equities, real estate, and risky credit around the world.

The Bank for International Settlements (BIS) has identified an important warning signal to identify credit bubbles that are poised to trigger a banking crisis across different countries: Unsustainable credit growth relative to gross domestic product (GDP) in the household and (non-financial) corporate sector. Three large (G-20) countries are flashing warning signals today for impending banking crises based on such imbalances: China, Canada, and Australia.

The three credit bubbles shown in the chart above are connected. Canada and Australia export raw materials to China and have been part of China’s excessive housing and infrastructure expansion over the last two decades. In turn, these countries have been significant recipients of capital inflows from Chinese real estate speculators that have contributed to Canadian and Australian housing bubbles. In all three countries, domestic credit-to-GDP expansion financed by banks has created asset bubbles in self-reinforcing but unsustainable fashion.
Post the 2008 global financial crisis, the world’s central bankers have kept interest rates low and delivered just the right amount of quantitative easing in aggregate to levitate global debt, equity, and real estate valuations to the highest they have ever been relative to income. Across all sectors of the world economy: household, corporate, government, and financial, the world’s aggregate debt relative to its collective GDP (gross world product) is the highest it has ever been. Central banks have pumped up the valuation of equities too. The S&P 500 has a cyclically adjusted P/E of almost 30 versus a median of 16, exceeded only in 1929 and the 2000 tech bubble.

The US markets are also in a valuation bubble because US-owned financial assets have never been more richly valued relative to income as we show below. The picture is equally frothy if we include real estate, also at record valuations to income. China’s capital outflow spillover from its credit bubble has driven up real estate valuations around the world.

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Valuation of US-Owned Global Financial Assets at Record Levels Exposed to China Bubble Burst

The unique aspect of the current global credit bubble is that China has emerged at its epicenter. Since 2008, China has created the world’s largest M2 money supply, the world’s largest and most grossly mismarked banking assets, the largest global trade with the rest of the world, the second-largest GDP, and the world’s largest credit-to-GDP imbalances.
Based on our studies of past financial crises, forecasting credit bubbles that are ready to burst with a high probability requires a combination of two key macro indicators that have been proven out across different countries and across time:

1. A high absolute level of debt to GDP relative to history
2. A high recent debt-to-GDP growth relative to long-term trend, what the BIS refers to as the “credit-to-GDP gap”. The credit-to-GDP gap flashes a warning signal of a potential banking crisis when credit growth rises more than 10% above its long-term trend.

The chart below shows thirteen countries with significant credit imbalances based on one or both measures. Note that at least ten of the countries have significant trade and capital flow links with China.

The first panel in the chart above shows seven countries including China that have historically high household and corporate debt compared to GDP, our first indicator. The second panel shows the top-ten countries today with the highest credit-to-GDP gaps according the BIS, our second indicator. Note that six of the credit-to-GDP gap countries are in Asia. They include China and five related “Asian tiger” economies. Hong Kong has both the highest outright debt-to-GDP and the highest credit-to-GDP gap of all countries tracked by the BIS today. Hong Kong is not even technically its own country. It is part of China under a “one country, two systems” concept. One is Chile, the world’s largest copper producer and copper exporter to China. Four countries overlap on both indicators: Hong Kong, China, Canada, and Singapore.
What the chart above emphasizes is that not only is China in a credit bubble that is poised to burst, it is linked to many other countries through trade and capital flows that also have large credit imbalances making the China bubble even more significant. The nexus of China with these other credit bubbles is just one of the reasons that we believe China is ground zero for a pending financial crisis that will have global repercussions.

Using the “credit-to-GDP gap” to flag likely credit busts is based on the work of economist Hyman Minsky, an academic whose career focused on studying the causes of financial crises. Minsky’s models were posthumously credited with predicting the global financial crisis and adopted by the BIS. Minsky’s “financial-instability hypothesis” essentially postulates that long stretches of prosperity sow the seeds of the next financial crisis. A long stretch of prosperity was certainly the case with China over the last 25 years as shown in the chart below. China’s share of global GDP grew from less than 2% in the early 1990s to almost 15% today. China even accelerated its growth rate in the wake of the global financial crisis in 2008. Since then, China has been the largest GDP growth economy in the world accounting for 54% of global GDP growth.

The problem is that long stretches of prosperity tend to be delivered with increasingly speculative leverage and unproductive investment activity. The China growth story is not likely a miracle of communist government central planning; it’s a massive credit bubble, almost certainly the largest ever. China’s impressive growth has come overwhelmingly and almost exclusively from unsustainable credit expansion combined with extensive, largely unprofitable domestic infrastructure expansion. In the last two decades, China has seen the largest construction boom in any country ever. The construction boom can be seen in the chart below by looking at the portion of China’s GDP that has gone into fixed asset investment which has grown almost every year since 2000 from 23% of GDP to 87% of GDP in 2016.
We believe this has been a centrally planned misallocation of capital into white elephant, unproductive fixed-asset infrastructure projects that on balance will likely not ever generate sufficient return on investment to justify their cost. The penalty will come from China’s future economic growth.

A recent study by University of Oxford, Said Business School published in the *Oxford Review of Economic Policy* finds that China’s low-quality infrastructure investments pose significant risks to the Chinese and the global economy. The study headed by Atif Ansar analyzed 95 large Chinese road and rail transport projects in China. The evidence suggested that for over half of the infrastructure investments in China made in the last three decades, the costs were larger than the benefits they generated, which means the projects destroyed economic value.

Dr. Ansar and his colleagues concluded that investing in unproductive projects results in a boom only while construction is ongoing. The boom turns to bust when forecasted benefits fail to materialize and the projects become a drag on the economy. Because of the large build-up of debt associated with past projects, they warn that there is a strong probability that China is headed for an infrastructure-led national financial and economic crisis that will likely also be a crisis for the international economy.

A study of our own shows similar findings. In the left-hand panel of the chart below, we show the aggregate free cash flow profitability of all listed Chinese non-financial companies. It has been persistently and cumulatively negative since 2001 while aggregate debt has skyrocketed. The data clearly show that the debt and infrastructure expansion economic model for China has had more costs than benefits over the last 16 years for the whole of Chinese public non-financial companies. Look at the aggregate cumulative free cash flow of the more
fundamentally sound non-financial companies of the S&P 500 over the same period in the right-hand panel. Note the stark contrast.

The Chinese local government sector has piled up a similar amount of debt compared to China’s listed corporates in supporting China’s poor returning infrastructure projects.

Michal Pettis a professor of finance at Guanghua School of Management at Peking University in Beijing explains the problem with China’s economic model: “In a market economy, investment must create enough additional productive capacity to justify the expenditure. If it doesn't, it must be written down to its true economic value. This is why GDP is a reasonable proxy in a market economy for the value of goods and services produced. But in a command economy, investment can be driven by factors other than the need to increase productivity, such as boosting employment or local tax revenue. What's more, loss-making investments can be carried for decades before they're amortized, and insolvency can be ignored. This means that GDP growth can overstate value creation for decades.”

The insolvency problem has already been building up for decades in China. It can’t go on forever, because it has led to a massive credit bubble that is doomed to burst. When a country piles more and more credit onto a faulty underlying economic model, it becomes a Ponzi finance scheme that has no other possible outcome but to implode on itself.

According to Minsky, there are three possible credit regimes in an economy:
1. Hedge Financing. Households and firms rely on future cash flows to repay principal and interest on their borrowings.

2. Speculative Financing. Borrowers rely on cash flow but can afford to repay only interest.

3. Ponzi Financing. Cash flows neither cover principal nor interest. Debt can only be serviced with the addition of new borrowing.

In a Ponzi-financed economy, lenders lend more and borrowers borrow more based on the greater fool theory, the idea that asset prices will keep rising. It all works in upward spiraling, self-reinforcing fashion until it simply cannot go on any longer and then asset prices suddenly drop, to the surprise of the vast majority, and then there is a self-reinforcing unwinding of the bubble, a financial crisis. The onset of the crisis is marked by a grab for liquidity, freezing credit markets, and a collective rush for the exits. This is what has come to be known as the “Minsky moment”. The initial asset-price downturn is usually sharp, but it can also be protracted. The downward impact to future GDP growth can be especially prolonged after a credit bust as the experience of Japan’s lost two decades shows.

In our analysis, the Chinese economy today is a classic Ponzi finance regime as described by Minsky and has been so in an egregious way since 2008. At the center of China’s credit bubble is its massive and opaque financial sector. The China Banking Regulatory Commission reports that the Chinese banking system had USD 35 trillion in on-balance-sheet banking assets through the first quarter of 2017. This is an incredible more-than-fourfold bank-credit expansion since 2008 as we show in the chart below. As a result, based on the ratio of on-balance-sheet banking assets to GDP, China’s banking bubble today is more than three times larger than the US banking bubble prior to the global financial crisis!
Just as alarming as China’s on-balance-sheet banking assets are China’s shadow banking assets. The British newspaper, *The Daily Telegraph*, recently broke a story based on an apparent leak of the People’s Bank of China’s 2017 Annual Financial Stability Report completed in June. The PBOC report allegedly showed that off-balance sheet banking assets in China have risen to somewhere between USD 30 and 40 trillion recently. These figures have yet to be confirmed or denied because the actual PBOC report has apparently been concealed by the PBOC and the IMF. Including both on-balance sheet and shadow bank assets shown below, the *Telegraph* story claims that “Chinese banks have built up exposure to assets equal to 650% of GDP”. The amount of shadow banking assets in China had been more widely recognized before the PBOC report to be only USD 9 trillion. If the amount that China’s off-balance sheet banking assets have risen to even half as much as the Telegraph reported – see the chart below (about USD 37 trillion is what it shows) – China would have recently had a shadow-banking gap that is even more concerning than the credit-to-GDP gap flagged by the BIS.
China Shadow Banking Credit Gap Could Trigger the Bust

Shadow banking is much bigger than long admitted
*Chinese Yuan, trillions*

Source: The Daily Telegraph, July 17, 2017

The reason that China’s shadow bank asset growth is a concern is that these assets have long been regarded by credible analysts, bankers, and regulators as China’s least liquid and poorest quality loans. In many cases, these are non-performing loans once held on bank balance sheets that have been rolled over, taken off balance sheet, and newly funded through wealth management products (WMPs) and other shadow banking vehicles for the banks’ off-balance-sheet activities. WMPs are such big business that the Chinese tech juggernauts have gotten in on the game including Alibaba’s subsidiary, Ant Financial, Tencent, Bidu, and JD.com. In our analysis, these companies, wittingly or not, through their “fintech” businesses, have become a central part of China’s grand Ponzi financing scheme. They have built the platforms for Chinese depositors to easily buy WMPs on their smart phones and indeed Chinese depositors are doing just that. It makes sense that shadow credit is exploding. The problem is that the idea of funding China’s rapidly growing long-term, illiquid, and heavily non-performing assets with rapidly growing short-term, liquid liabilities, all facilitated by the banks and tech companies, and all kept off balance sheet, is a formula for a systemic banking crisis.

One of the reasons shadow banking assets have been exploding in the last several years is the moral hazard associated with them. There is an implicit assumption in China, but not an explicit guarantee, that the banks and ultimately the Chinese government will make good on shadow-bank deposits in the event of a financial crisis. The problem is that such a moral hazard is what will almost certainly guarantee the crisis.

Minsky said an extraordinary acceleration in credit would be needed just to maintain a constant growth rate during the late stages of a credit bubble, just before the bust. The idea of monitoring the credit-to-GDP gap, and
why the Telegraph estimates for shadow banking growth would be a strong crisis warning signal even at half the amount, is that credit growth naturally accelerates as the “Minsky moment” is arriving in a Ponzi finance-style banking system. Therefore, if China really were on the last legs of its real GDP expansion, before the bust were to kick in, it would make perfect sense that it would need rapidly accelerating credit growth to eke out any sort of positive real GDP growth at all. In a Ponzi finance-styled economy, the scheme goes on until it goes bust because that is the model they have committed to. Only the bust can force a change.

Chinese leaders have likely been implicitly sanctioning the acceleration of credit growth this year in their shadow banking markets to keep growth going at all costs even while publicly admonishing it ahead of the 19th National Party Congress (NPC) in November. Over the past several weeks, we have been hearing over and over that the Chinese leaders will not let the bubble burst before the NPC in November. Such is the conventional wisdom on Wall Street today. The takeaway for us is that Wall Street is finally acknowledging that China is indeed in a massive credit bubble. Before, during, or after the NPC, the timing of the bursting of the Chinese currency and credit bubble is imminent in our view. We believe it is prudent to be positioned ahead of the NPC and ahead of everyone else who tries to scramble for the exits after it is too late. We want to be shepherds not sheep. Like in the Big Short, sure, there can be some short-term pain in being early, but it was the early players who stuck it out and had the foresight and strength of their conviction who ultimately reaped the big rewards for their investors. We believe being early is the way to reap the big rewards on the China bust. We believe the bust is coming soon.

The China credit bubble already started to burst in late 2015 and early 2016 and Crescat capitalized extremely well during this period as we showed in our last quarterly letter while markets and most other managers were down. We believe that is a foreshadowing what is still to come on a bigger scale. The China equity bubble already peaked in 2015 as can be seen in the four Chinese stock market indices in the chart below. The chart also shows based on the aggregate revenue fundamentals of all Chinese companies, which appear to be now in the third year of revenue recession, that China’s GDP has very likely has been overstated recently and that its economy is under much more stress than most global investors realize. In other words, the huge non-performing debt and loss-making company problem has likely only been getting worse as debt has been exploding recently.
Chinese equities still have much further down to go down in our strong opinion based on still-excessive valuations as we show further below. The banking crisis has not even happened yet in terms of losses being recognized through earnings charges and book value write-downs. Bad debt has been building up behind the scenes for two decades since the last banking recapitalization. Bank earnings are vastly overstated. By rolling over non-performing loans facilitated by new short-term credit, such as WMPs, banks have continued to report strong earnings and appear cheap. This is not much different than how US banks looked in 2007 before all hell broke loose. The difference is that Chinese banks are much bigger and likely much more insolvent.

If one wants to understand how big China’s overall financial sector bubble is today, relative to the overall China equity market, just look at the financial sector weight in the major Chinese and Hong Kong Indices: 36% of the Shanghai Composite; 43% of the CSI 300; 44% of the Hang Seng Index. Financials only make up 25% of the China MSCI Index because 28% of that one is crowded out by two tech stocks, Tencent and Alibaba, each priced at a frothy 11x EV/Sales. The indices in our table below that appear cheap on P/E are heavily overweighed in the highly leveraged financial sector. The E in the P/E of Chinese banks and other financials is simply not credible. Neither is the book value. Many global investors today are being fooled by this huge value trap. China’s technology–laden indices, Shenzhen and ChiNext, are also overvalued. Our table shows them with negative median free cash flow and massive P/Es. Chinese equities are overvalued across the board and offer excellent short opportunities today.
The Chinese currency is also highly overvalued and headed for a crisis as we explain further below. By shorting overvalued Chinese equities through US ETFs and ADRs, one also gets the bonus of the yuan currency short imbedded in the trade. By shorting ultra-frothy Chinese fintech stocks, including through US ADRs, one also gets exposure to China’s coming shadow banking meltdown.

The China currency and credit bubble has only gotten bigger since early 2016. The big credit bust is still ahead of us, in our strong opinion. The bust in some form will be triggered by bank runs from the masses of Chinese depositors when they learn that they are the ones holding the bag with respect to China’s insolvent banking system. We believe this is why the Chinese currency has already been under so much pressure already from capital outflows. It is pressure from the Chinese trying to get their money out of the banking system. The capital outflows to date have likely been less from the masses and more from wealthy Chinese elites who have seen the writing on the wall for some time already. Like money that fled the Soviet Union and Russia prior to and during its two big currency crises in the 1990s, that money is probably never coming back. The masses within China are the ones buying WMPs on their smartphones. When the outflow pressure shifts from the elites to the masses of domestic bank and shadow-bank depositors, there is high risk of bank runs and social unrest. When this threat becomes all too real and begins to transpire, in our analysis, that is when Chinese authorities will be left with no other viable option than to resort to massive quantitative easing to bail-out and recapitalize their banks and re-stimulate their economy. That is when the insolvency problem in the Chinese banking system will have to be addressed, one way or another, and if China has true ambitions to transition from an emerging market to a developed economy, it will have to come clean on its NPLs. QE is therefore the only implicit guarantee that Chinese depositors should be relying on, but QE does not prevent a crisis; it will likely only coincide with the crisis.

So how much money will China have to print to recapitalize its banking system? Let’s be conservative and say that China’s non-performing loans are only half as bad as they were when it recapitalized its banks in the early 2000s. China ultimately confessed that 40% of its banking assets were non-performing loans that had built up in the wake of the 1997 Asian Financial Crisis. Let’s say it is only 20% today. It is probably more. Let’s also assume the most conservative estimates for shadow bank assets of USD 9 trillion. Along with USD 35 trillion of on-balance sheet assets (the Telegraph article says it is now $38 million), our conservative estimate equates to USD 8.8 trillion of loans in the Chinese banking system today that will effectively never be repaid and will need to be written off. Such an amount is equal to 84% of China’s GDP, more than enough to wipe out all the equity in its Chinese banking system twice over. If the banks were to write that debt down and recapitalize the banks with money printing, it
would equate to 37% of its M2 money supply, all else equal a 37% currency devaluation. This is our best-case scenario for the inevitable devaluation of the China currency. It will likely be worse.

The 1997 Asian Currency Crisis provides several mid-case scenarios for what we should expect from the coming Chinese yuan devaluation. In the second half of 1997, four Asian Tigers came off extensive credit bubbles that had been building over a prolonged period including Thailand, South Korea, Malaysia, and Indonesia. In the bust, their currencies all declined between 47% and 85% within six months. Another mid-case comparable would be post-Soviet Russia where in Russian financial crisis of August of 1998, the ruble crashed 70% in one month. For the worst case scenario, the comparable is China’s former communist neighbor, the Soviet Union. The Soviet ruble was essentially a 100% wipeout, a zero though hyperinflation after the Soviet Union breakup the early 1990s.

One key signal that the China’s credit bubble is about to burst is housing prices in China’s Tier 1 and Tier 2 cities. Home prices in Tier 1 and Tier 2 cities reflect one of the biggest asset bubbles in China to go along with its massive credit expansion. Real estate prices have been soaring for many years led by Tier 1 cities such as Beijing and Shanghai. Rent yields in Beijing recently hit a new low of about 1.25% an insanely high price-to-rent multiple of 80 times. As part of China’s massive infrastructure buildout, there is an oversupply in housing. As shown in the chart below, price appreciation in Tier 1 cities has been decelerating for over a year. Prices may have turned negative in July in Beijing and Shanghai according to local sources. If true, this is just one of many sings that we have laid out herein that China’s Minsky moment is imminent.
Another new catalyst that is heating up right now is the possibility of President Trump imposing trade sanctions on China for “unfair trade practices” to punish them for not taking a tougher stance on North Korea also perhaps to fulfill a campaign promise.

Demographic trends are another key catalyst that point to clear bursting of the China bubble soon. The idea here as shown in the chart below is that China’s working age population will peak next year.
Why does a peak in the working age population matter in forecasting when the China credit bubble will burst? One powerful reason for us is China’s demographic similarity today to Japan when its credit bubble burst in 1990. As shown below, Japan was approaching a peak in its working age population at that time. Japan’s aging population has been a key feature of its lost two decades of economic growth since its credit bubble burst. Look at how brutal the stock market and real estate crash in Japan was after its bubble burst.

China’s aging workforce population further points to why the idea that China can transition from an infrastructure growth economy and shift to a robust services and consumption driven growth economy as China leaders and bulls tout is not likely a viable plan. A consumption-driven economic growth model would be better supported by a growing workforce population.
The idea behind Minsky’s work is that it is the unsustainability of the credit bubble itself that is the catalyst for its implosion, but there are also many specific catalysts that have identified to justify our conviction that China bubble is going to burst soon. We have discussed many of them herein particularly related to China’s “credit gap”. In our last quarterly letter, we showed why Federal Reserve tightening credit late in the business/economic cycle is a significant catalyst to accelerate the bursting of the China bubble.

Here we enumerate the catalysts for the imminent bursting of the Chinese currency and credit bubble discussed herein and in our other work:

1. Fed credit tightening puts pressure on Chinese currency
2. China and Hong Kong is now flashing a banking crisis warning signal in BIS “credit-to-GDP gap” model
3. China’s connections to other countries also flashing warning signals of credit bubbles about to burst
4. Pressure from Chinese capital outflows
5. Threat of bank runs from Chinese masses
6. Housing prices on precipice of drop in China Tier 1 and Tier 2 cities from record price-to-rent levels and supply/demand imbalance
7. Ongoing poor and deteriorating fundamentals of China’s non-financial listed companies linked to unsustainable infrastructure investment binge
8. Dwindling, encumbered, and likely overstated foreign reserves
9. Imminent threat of US trade sanctions on China
10. Looming crested of China’s workforce population

11. China credit bust already started to unfold in 2015, an early warning signal, but just a taste of what is to come, because the credit imbalances have only become more extreme

12. Widespread Wall Street complacency ahead of China NPC political elections in November

As the China bust and other banking crises play out in the next global economic downturn, precious metals will likely to be a key beneficiary. Considering gold specifically, we know that its supply is strictly limited and supply growth is substantially lower than the recent rapid growth in world monetary base. As fiat currencies around the world are debased, gold stands as an excellent store of value and a hedge against inevitable inflation. Gold has been recognized as money that is a store of value in all countries around the world for thousands of years. That is why it continues to be a primary reserve asset of every central bank. The chart below shows just how quickly the monetary base has grown in major countries, while above ground gold supply grows at a consistent low steady rate of less than 2% year after.
The cyclical correction in gold prices which began in 2011 has resulted in gold becoming historically cheap relative to the fiat monetary base of the world’s major economies. In our analysis, we capture the vast majority of world monetary base by including the G-20 countries plus the Eurozone.
The fiat monetary base is only likely to explode further upward in the next financial crisis because history has proven that when credit bubbles burst, central banks must resort to quantitative easing or money printing. Central banks have already shifted from being net sellers to net buyers of gold since the global financial crisis, as shown in the chart below, yet gold still remains undervalued relative to fiat money. This gap can and should easily be filled naturally as it has historically simply by central banks printing more money and buying gold with it. Gold is also a non-correlated part of our portfolio, helping to smooth volatility while acting as a hedge on short currency positions against the US dollar. Without gold in our global macro fund, we would way too much long dollar exposure. We see substantial conservative value in gold today and significant future upside in both real terms and as a hedge against future inflation.
Q2 Attribution

Our best performing theme in Q2 was Aging Population. We own a basket of healthcare stocks that are defensive, yet show strong growth and reasonable valuations. While our shorts generally held us back during Q2, New Oil and Gas Resources was our second best performing theme, which is predominantly short oil-weighted exploration and production companies. These companies struggle with crude near and even well above current levels. A slow growth world with looming issues in China limits oil demand longer term. Cheap high yield financing and flexible US shale production contribute to continued oversupply.

China Currency and Credit Bubble was our biggest lagging theme in Q2. As we have outlined above, the imbalances are substantial, the bubble is real, bubbles burst, there are catalysts, we are confident this will work well and soon. Despite a weaker dollar, precious metals underperformed in Q2, giving back some of their outperformance earlier in the year. Maturing Expansion also worked against us in the quarter. While some US late cycle shorts in this theme were working well, including auto parts retailers, strength in semiconductor stocks were a drag on performance.
At our core, we are value managers. Thus, in our hedge funds, we hold short positions in overvalued securities and long positions in undervalued securities. It’s that simple. We have proven to ourselves and hopefully to others that a comprehensive and persistent value plus macro-thematic investment strategy wins over the long term. By continuously and relentlessly applying our investing principles to our actively managed portfolios, we can be confident that at any time, our portfolios’ intrinsic values are substantially more than the market is ascribing to it at any point in time. This gives us the confidence to endure temporary drawdowns based on the market’s whims while our portfolios are ultimately driven by a persistent and persevering path of appreciation toward intrinsic value. Playing the late-cycle momentum game, hoping for more appreciation in over-valued longs today for instance, certainly would have worked in recent temporary hindsight, but that is opposite of our discipline. We know that our value discipline works much better over the long term.

The China bubble presents a great opportunity to capitalize on an almost-certain coming bust just as we foresaw and capitalized on the US housing bust in 2007. To truly capitalize, we need to be ahead of the crowd. We believe that our hedge funds are the best vehicle to capitalize on the China bust, because we strongly believe that we will need to advantage of short positions to do so. We have solutions for long-only investors too. Cash and undervalued precious metals and related mining companies feature prominently. In our hedge funds, being short means accepting risk of temporary drawdown as our short positions may go against us in the very late stages of the bubble as they have been recently. While we have been going through a drawdown in our hedge funds, we have exercising risk controls to help us endure and minimize. We believe bust is coming soon for all the reasons we have laid out herein. We are confident that the game can and will change quickly back in our favor soon enough given our years of experience. Our proven, successful long-term track record includes enduring these normal drawdowns along the way. Our goal is to beat the market on an absolute and risk-adjusted basis by following our discipline and we have done that over the long term. We plan as always to battle, endure, and succeed doing that going forward.

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<th>Crescat Global Macro Fund – Q2 2017 Attribution by Theme</th>
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Sincerely,

Kevin C. Smith, CFA
Chief Investment Officer

Tavi Costa
Emerging Markets Analyst

Nils Jenson
Energy and Materials Analyst
About Crescat

Below is a brief strategy description that differentiates each of our products:

**Crescat Global Macro:** A diversified, multi-asset class long/short global hedge fund that trades and invests in highly liquid global assets including equities, commodities, currencies, and fixed income securities.

**Crescat Long/Short:** A diversified global long/short equity hedge fund that trades and invests in highly liquid large- and mid-cap global equities.

**Crescat Large Cap:** A diversified large-cap, long-only separately managed account (SMA) strategy that trades and invests in predominantly US-listed large cap global equities.

Crescat has a firm-wide investment process of combining macroeconomic themes with a fundamental equity model and disciplined risk controls that it applies to all three products. It’s an investment process that has evolved with each successive strategy. Kevin Smith started the large-cap, long-only equity product at a prior firm in 1999 building off his fundamental equity model that he originally began developing back in 1994. He also launched the long/short equity hedge fund strategy in 2000. He founded Crescat, where he launched the global macro product in 2006. Crescat acquired his other strategies and clients in 2007. Today he leads a team of seven investment professionals. He has been the continuous portfolio manager of all three products since their respective inception dates.

Case studies are included for informational purposes only and are provided as a general overview of our general investment process, and not as indicative of any investment experience. There is no guarantee that the case studies discussed here are completely representative of our strategies or of the entirety of our investments, and we reserve the right to use or modify some or all of the methodologies mentioned herein. Only accredited investors and qualified clients will be admitted as limited partners to a Crescat fund. For natural persons, investors must meet SEC requirements including minimum annual income or net worth thresholds. Crescat funds are being offered in reliance on an exemption from the registration requirements of the Securities Act of 1933 and are not required to comply with specific disclosure requirements that apply to registration under the Securities Act. The SEC has not passed upon the merits of or given its approval to the Crescat funds, the terms of the offering, or the accuracy or completeness of any offering materials. A registration statement has not been filed for any Crescat fund with the SEC. Limited partner interests in the Crescat funds are subject to legal restrictions on transfer and resale. Investors should not assume they will be able to resell their securities. Investing in securities involves risk. Investors should be able to bear the loss of their investment. Investments in the Crescat funds are not subject to the protections of the Investment Company Act of 1940. Performance data represents past performance, and past performance does not guarantee future results. Performance data is subject to revision following each monthly reconciliation and annual audit. Current performance may be lower or higher than the performance data presented. Crescat is not required by law to follow any standard methodology when calculating and representing performance data. The performance of Crescat funds may not be directly comparable to the performance of other private or registered funds. Investors may obtain the most current performance data and private offering memorandum for a Crescat fund by contacting Linda Smith at (303) 271-9997 or by sending a request via email to lsmith@crescat.net. See the private offering memorandum for each Crescat fund for complete information and risk factors.