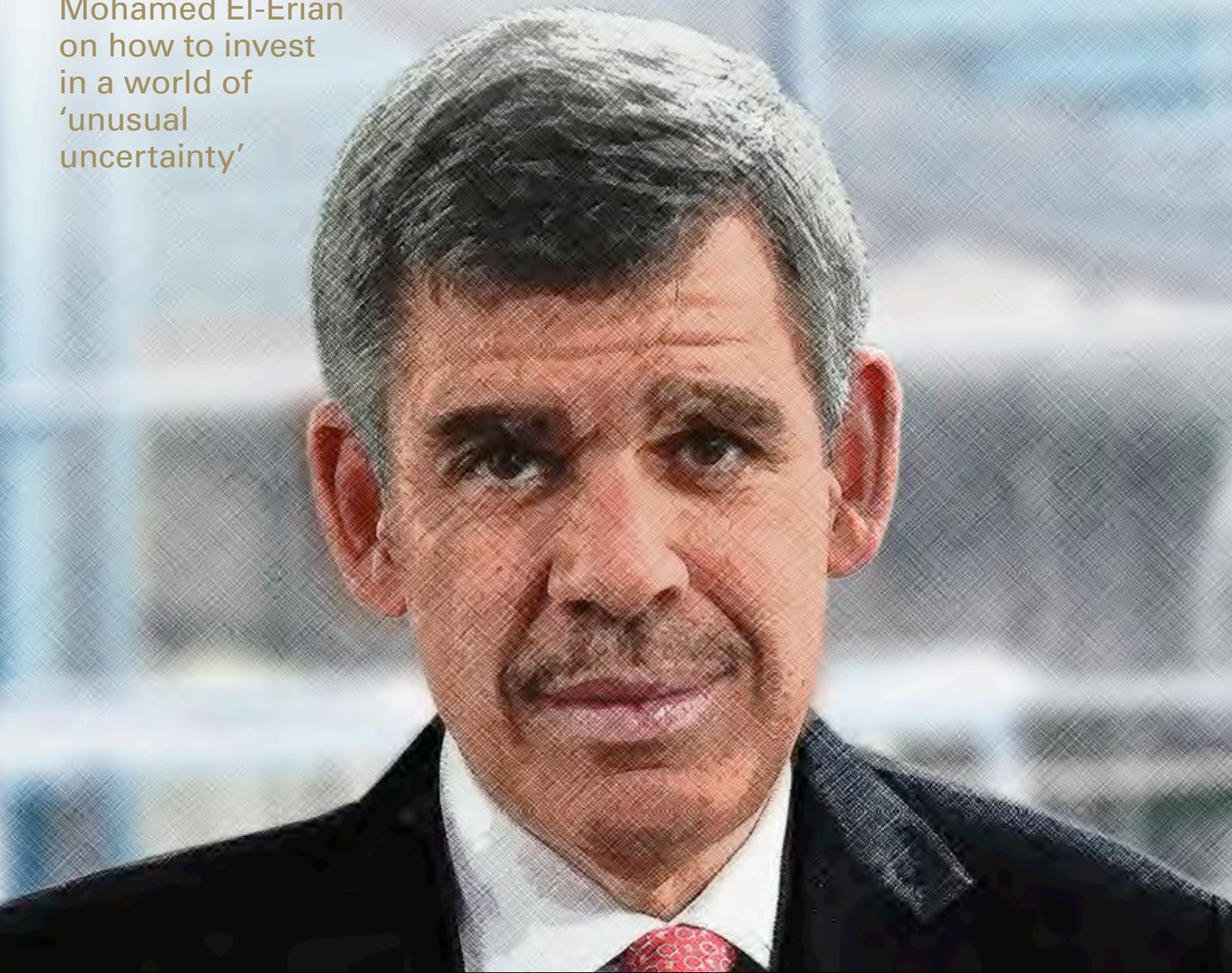


Gold Investor

October 2016

Heightened risks, alternative solutions

Mohamed El-Erian
on how to invest
in a world of
'unusual
uncertainty'



Where next?

US interest rates and the
impact for gold

Shari'ah Standard

A new asset class for
Islamic investors

Going for gold

A changing mindset
in Japan

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Foreword

The benefits of gold in a world of heightened risk

Aram Shishmanian

Chief Executive Officer
World Gold Council



Welcome to the autumn edition of *Gold Investor*. As 2016 draws to a close, macroeconomic and political risks seem more acute than ever.

In the US, the imminent Presidential election is expected to have significant political, financial and economic implications, whatever the outcome. In Asia, questions surround the economic outlook for China, while Japan remains mired in a vicious circle of low growth and deflation. And in Europe, the repercussions of Britain's unexpected decision to leave the EU, amid increasing nationalist sentiment across the region, are expected to persist for many months.

Against this backdrop, central banks have tried to stimulate growth through ultra-low and even negative interest rates, but their efforts have yielded little joy, prompting many investors to question long-held beliefs about basic investment strategy.

Whatever the answer, one point is clear: it is increasingly tough for investors both to manage risk *and* deliver acceptable returns.

In this edition of *Gold Investor*, leading opinion formers and financial institutions discuss the global economic climate and the role that gold can play as a risk mitigation and wealth preservation tool, despite short-term price fluctuations.

Mohamed El-Erian, chief economic adviser at global insurer Allianz and former CEO of leading bond investor PIMCO, is acknowledged as one of the top 100 global thinkers. He suggests that we are in uncharted economic and political waters, characterised by exceptionally low interest rates, stagnant growth and rising inequality. In this inhospitable environment, investors are being tempted to take excessive

risks to achieve desired returns. El-Erian suggests that a strategic allocation to gold can help to increase returns and mitigate risk.

Simona Gambarini, commodities analyst at leading research consultancy Capital Economics, also believes that gold has a role to play in today's uncertain world. Acknowledging that the price of gold has, in the past, been linked to the direction of US interest rates, she suggests that this time, the precious metal is likely to remain in demand, even if the Federal Reserve raises rates. First, because nominal US interest rates are expected to remain low. Second, because other central banks are unlikely to follow the Fed and third because the political environment remains highly unpredictable.

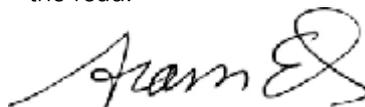
On this note, Dr Martin Murenbeeld, chief economist at respected economic and gold consultancy Dundee Economics, discusses the alarming dangers posed by global trade imbalances. He believes these can only be rectified by significant exchange rate realignments, including a devaluation of the dollar. As he explains, this will have a substantial effect on the price of gold.

Mitsubishi UFJ Trust and Banking Corporation, one of Japan's leading trust banks, reflects on gold's value in today's climate too. Executive Officer Osamu Hoshi highlights the rising appeal of gold to Japanese financial institutions and pension funds, as investors seek out assets that provide comparative stability in a volatile climate.

In terms of key new initiatives, Dr Hamed Hassan Merah, Secretary General of the Accounting and Auditing Organisation for Islamic Financial Institutions, introduces the Shari'ah standard for gold, developed in collaboration with the World Gold Council, and explains the benefits it will bring to Islamic investors around the world.

And Garry Jones, CEO of the London Metal Exchange explains the rationale behind LMEprecious, the new initiative launched in partnership with the World Gold Council and leading industry participants. A suite of exchange-traded and centrally cleared precious metals products, LMEprecious is intended to modernise the London gold market and deliver tangible benefits to market users.

We are keen to hear your views about our publication so please email goldinvestor@gold.org. We hope you enjoy the read.



Aram Shishmanian

The World Gold Council is the market development organisation for the gold industry. Working with world-class organisations across the supply chain, we stimulate demand, develop innovative uses of gold and take new products to market. As the global authority on gold, we offer comprehensive analysis of the industry, giving decision makers unparalleled information and insight into the drivers of gold demand.

In the news

Increased gold allowance for Turkish commercial banks

The Turkish central bank has raised the amount of gold that commercial banks can hold in reserves.

The initiative, designed to boost foreign exchange reserves and bring residents' gold in to the economy, allows Turkish banks to meet their reserve requirements by depositing gold instead of cash. It has proved highly successful since it was introduced in 2011.



A comprehensive gold policy for India

The Government of India may announce a comprehensive gold policy at its Union Budget in February 2017. The first such initiative in India, it may include the launch of regulations for testing and certifying agencies and the creation of a National Gold Board, to advise on the Gold Monetisation Scheme, sovereign bonds, imports, trading, a bullion exchange, hallmarking and refining.*

*Source: Business Standard 31 August 2016



Higher gold and foreign exchange reserves in Belarus

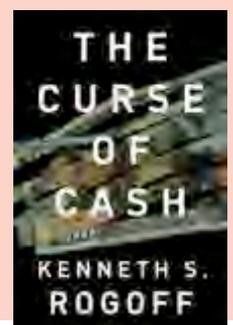


The National Bank of the Republic of Belarus intends to raise its gold and foreign exchange reserves by US\$500 million, up to the equivalent of US\$5.4 billion, in 2017. As deputy chairman, Sergei Kalechits, explained: "For the sake of ensuring macroeconomic stability next year the government and the central bank will take measures to maintain and increase the country's gold and foreign exchange reserves."

Ken Rogoff highlights the benefits of gold

Ken Rogoff, Professor of Economics at Harvard University and one of the world's most respected economists, has published his new book, *The Curse of Cash*. In it, he suggests:

"Some would say the high price of gold is a huge bubble. That is one interpretation, but the history of money suggests another: gold is valuable, because a society needs to have a currency, and gold has proven an attractive option for a very long time."



Kenneth S. Rogoff.
The Curse of Cash
Princeton University Press.

Where next for gold?

Simona Gambarini

Capital Economics



The price of gold has increased sharply this year, but speculation about US interest rates has prompted suggestions that this upward trajectory will move into reverse. Not so, says **Simona Gambarini**, commodities analyst at leading economics research consultancy Capital Economics.

The gold price has risen close to 20% this year in US dollar terms, despite subdued buying from consumers in China and India, as well as emerging market central banks. In part, this reflects changing perspectives on US interest rates earlier this year. As it appeared less likely that the Fed would raise interest rates, the dollar weakened and the gold price rose. But increased concern about US inflation and a revival of safe-haven demand have also been important.

This range of influences suggests that the gold price should prove relatively resilient when the Fed raises rates again.

Indeed, when the Fed hiked rates in December 2015 for the first time in almost ten years, the effect on the gold price was short-lived and it actually rose in subsequent months as other drivers took over.

The conventional wisdom, of course, is that Fed tightening is bad for gold, mainly because higher US rates can strengthen the dollar and increase the opportunity cost of holding commodities. And prices could drop back in the short term, if the next hike comes sooner than the markets currently anticipate.



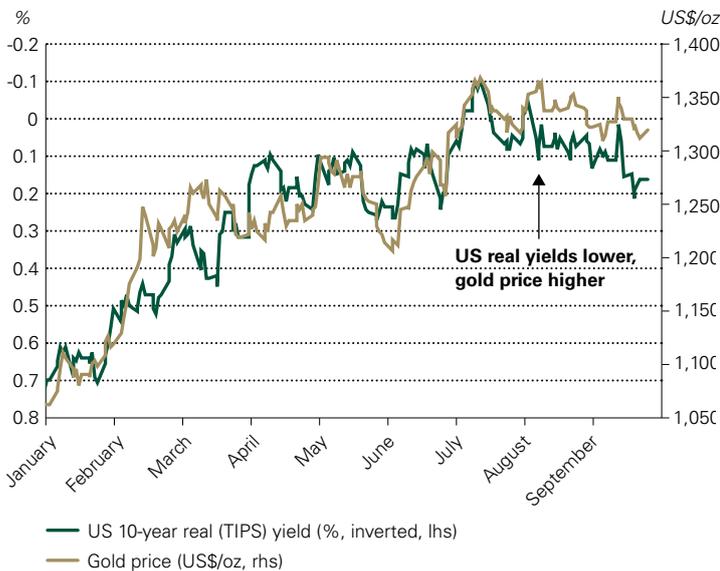
However, we think that any pull-backs will be temporary, for three key reasons.

First, we expect that the Fed will raise rates only gradually and to only a low level by past standards. Nominal interest rates are not expected to rise much above 2-3% over the coming years and this is unlikely to be a game-changer, especially if rising inflation keeps real interest rates low.

“ Real interest rates matter most in determining the opportunity cost of holding an asset like gold. ”

And real interest rates matter most in determining the opportunity cost of holding an asset like gold, which can be expected to (at least) maintain its value in real terms. Indeed, the price of gold is relatively closely correlated with real yields (**Chart 1**).

Chart 1: Ten-year yield on US Treasury inflation protected securities and gold price



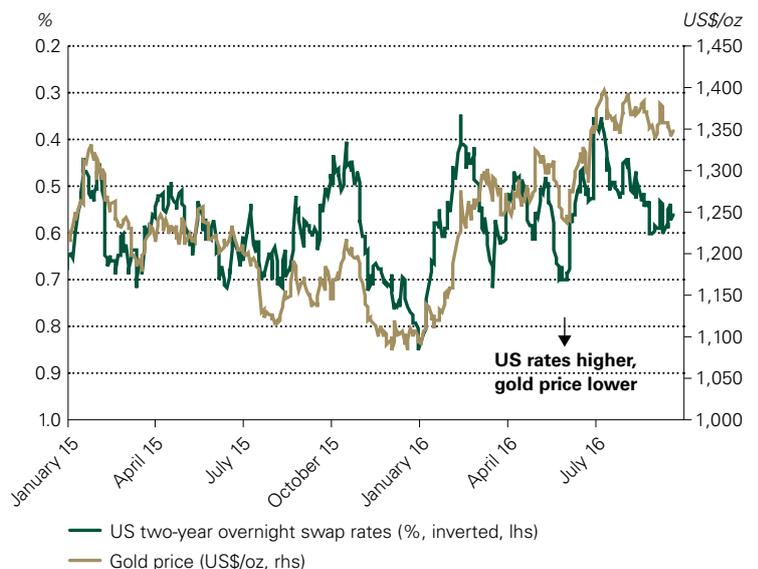
Source: Bloomberg

Admittedly, headline inflation is still low in the US, but both headline and core inflation are on track to be well above the Fed's 2% target by end-2017, meaning that real interest rates should remain at historically low levels.

“ Government bond yields are already negative in much of Europe and Japan, while the Bank of England responded to the Brexit vote by cutting its key rate to 0.25% and increasing its Asset Purchase Facility by £170 billion. ”

Second, other central banks are unlikely to follow the lead of the Fed. This helps to explain why gold prices have recently held up well even though expectations for US interest rates (proxied in **Chart 2** by overnight indexed swap rates) have recently started to climb again. Indeed, monetary policy in the Eurozone, the UK and Japan will remain loose for the foreseeable future and additional stimulus is likely in the coming months, particularly following the economic and political uncertainty generated by the UK's vote to leave the European Union. Government bond yields are already negative in much of Europe and Japan, while the Bank of England responded to the Brexit vote by cutting its key rate to 0.25% and increasing its Asset Purchase Facility by £170 billion. Looking forward, we expect rates in Japan to fall deeper into negative territory and asset purchases to be extended there and in the Eurozone.

Chart 2: US two-year overnight swap rates and gold price



Source: Thomson Reuters

Third, potential additional shocks lie ahead. There is a significant risk that Brexit contagion will prompt a resurgence of the debt crisis in the periphery of the Eurozone and other countries may decide to break away from the EU too. In the US moreover, the presidential election could prompt a fresh bout of global political uncertainty.

Gold has already demonstrated its value as a safe haven this year – in the immediate aftermath of the UK's vote to leave the EU. With Brexit-induced economic and political uncertainty likely to persist for some time, we think the precious metal will remain in high demand.

Looking back, several factors contributed to the surge in the gold price this year, allowing it to hold on to the bulk

of its gains even in the face of fading support from some key drivers. Going forward, lingering global risks should ensure that demand for gold as a safe haven asset remains elevated even in light of Fed tightening. What's more, the downside for gold should be limited by a renewed focus on the risks of higher inflation, after years of exceptionally loose monetary policy.

We would not expect the price of gold to revisit its previous highs of around US\$1,900/oz, unless there is a major crisis that forces the Fed to loosen its monetary policy again. However, we do believe there is plenty of scope for additional gains over the medium term, despite the prospects for further monetary tightening in the US. ■



Federal Reserve Building, Washington, DC.

A new Shari'ah Standard for gold

Dr Hamed Hassan Merah

Secretary General
Accounting and Auditing
Organisation for Islamic
Financial Institutions



Natalie Dempster

Managing Director
Central Banks and
Public Policy
World Gold Council



Gold investing has traditionally been fraught with challenges for Islamic institutional and individual investors. Now the Accounting and Auditing Organisation for Islamic Financial Institutions (AAOIFI) has joined forces with the World Gold Council to create a new Shari'ah Standard for gold. **Dr Hamed Hassan Merah**, Secretary General of AAOIFI, and **Natalie Dempster**, Managing Director, Central Banks and Public Policy, World Gold Council explain why the collaboration took place and what it will achieve.

What is AAOIFI?

Dr Merah: AAOIFI is an Islamic, international, autonomous not-for-profit corporate body that develops accounting, auditing, governance, ethics and Shari'ah standards for Islamic financial institutions (IFIs) and the industry. As an independent, international organisation, AAOIFI is supported by 200 institutional members from around 45 countries, including the Islamic Development Bank, central banks, Islamic financial institutions, and other participants from the international Islamic banking and finance industry, worldwide. AAOIFI standards have introduced greater harmonisation of Islamic finance practices across the world.

And how do institutions adopt AAOIFI standards?

Dr Merah: AAOIFI standards are followed – as part of regulatory requirements or Islamic Financial Institutions' internal guidelines – in jurisdictions that offer Islamic finance across the Middle East, Asia, Africa, Europe, and North America, as well as, the Islamic Development Bank Group. In addition, there are jurisdictions where the local set of regulations or Shari'ah requirements are based primarily on the principles setup by the AAOIFI standards. And there are numerous institutions across the globe that follow the principles set by AAOIFI standards, even if there is no regulatory pressure to do so.



Sheikh Zayed Grand Mosque, Abu-Dhabi.

Why did the World Gold Council decide to pursue a Shari'ah Standard on Gold?

Natalie Dempster: One of the World Gold Council's roles is to make sure that gold is universally available to savers and investors. Our discussions with Islamic financial institutions indicated that there was considerable uncertainty about the Shari'ah treatment of gold as an investment and the compliance of contemporary gold products. This was, in turn, preventing households and institutions from reaping the benefits of investing in gold. It was clear that a global Standard on Gold was necessary to clarify the rules.

And why did AAOIFI take on the development of the Shari'ah Standard on Gold?

Dr Merah: The main consideration that prompted AAOIFI to commence work on this standard, following the World Gold Council's proposal, was gold's apparent use as an investment opportunity for Islamic financial institutions and their customers. However, when investing in gold, many factors must be taken into consideration. From the perspective of Islamic *Fiqh* and the Islamic economic system, gold has a specific significance. The original sources of Shari'ah, the Holy Quran and *Sunnah* have numerous moral and ethical warnings about the use and hoarding of gold. These include a few prohibitive uses, as well as general guiding principles against hoarding gold and silver.

“ Shari'ah-compliant investment options in the gold market can provide IFIs and their customers with a great opportunity to diversify their investments. ”

Shari'ah provides specific guidance on gold and gold-based transactions, including several prohibitions. But gold has been a medium of exchange since ancient times so these prohibitions are primarily hurdles for opening the back door to *Riba*.

Today, gold trading is different and demand for gold has also changed. Newer demands include central bank needs and industrial needs, like electronics. Newer avenues include exchange traded futures and other, similar transactions.

“ One of the reasons for making this standard a priority was to ensure that appropriate products are available to provide investment solutions to customers and allow them to manage liquidity within Shari'ah-compliant options. ”

When will the Standard be launched?

Natalie Dempster: An exposure draft of the Standard was launched on 9 October and following an industry review process, we hope that the Standard will be endorsed by AAOIFI's Shari'ah Board later this year on 20 November and launched on 6 December at the World Islamic Banking Conference in Bahrain. AAOIFI and the World Gold Council will then hold a series of regional events, bringing together Islamic finance market practitioners, investors, product development teams and Shari'ah scholars to discuss how to apply the Standard, increase the role of gold in the Islamic finance system and develop new, Shari'ah-compliant gold products.

How do you think Islamic investors will respond once gold becomes a more investible asset class?

Dr Merah: Islamic banks and investment firms are continuously looking for possible investment options, as most of the time they are deposit-heavy, and asset-building avenues are not always available. Additionally, considering the needs of their customers, they need, at times, to diversify either their own or their customers' investment portfolios. Shari'ah-compliant investment options in the gold market (including physical as well as exchange based transactions) can provide IFIs and their customers with a great opportunity to diversify their investments.

Natalie Dempster: The Standard will bring all the strategic benefits of investing in gold to Islamic investors. These include gold's role as a powerful diversification tool, a safe-haven asset and a hedge against extreme inflation. Indeed, the choice of assets is so limited for Islamic investors that the benefits of adding gold to a portfolio should be even more pronounced. It is also much more liquid than other common Islamic assets, such as property.

Additionally, World Gold Council analysis shows that, since reliable data became available eight years ago, gold has outperformed all major Islamic asset classes including REITs, the Takaful index, the Dow Jones Islamic Equities Index and the Dow Jones Sukuk Index. Gold has also performed better than major currencies used in the Islamic world. Since 2000, it has risen 367% in US dollar terms (Gulf Cooperation Council currencies are pegged to the US dollar), 393% in Malaysian Ringgit terms, and 762% in Indonesian rupiah terms. Gold can bring both strategic benefits and returns to an investor portfolio.

And what products will the Standard cover?

Natalie Dempster: Before the Standard was issued, there was only very limited Shari'ah guidance on gold bars and coins, and virtually no guidance at all on contemporary gold products. The Standard addresses this gap and has been written on a non-exclusive basis, meaning that it covers a wide range of potential gold products. These products cater to both the retail and wholesale markets and include vaulted gold, regular gold savings plans, gold certificates, physical gold ETFs and certain aspects of gold futures. All these products need to be physically backed by fully allocated gold, in addition to complying with the other Shari'ah rules and principles outlined in the Standard.

“ Given that Islamic finance is growing on average by 16% per year, and Islamic finance assets are projected to reach US\$2 trillion by 2020, a very conservative 1% allocation to gold would increase gold demand by US\$20 billion by 2020. ”

“ Demand will come from both individual and institutional investors looking to grow their overall wealth, diversify existing portfolios and hedge against tail risk through gold exposure. ”

How will the Standard impact the gold market?

Natalie Dempster: We believe the Standard will have a direct and significant impact on gold demand. Our research and industry engagement suggest that demand will come from both individual and institutional investors looking to grow their overall wealth, diversify existing portfolios and hedge against tail risk through gold exposure. Given that Islamic finance is growing on average by 16% per year, and Islamic finance assets are projected to reach US\$2 trillion by 2020, a very conservative 1% allocation to gold would increase gold demand by US\$20 billion or around 500 tonnes 2020.

Perhaps the most often-discussed constraint on the growth of Islamic finance is the lack of liquidity and product diversity. Do you see gold as a solution to these constraints?

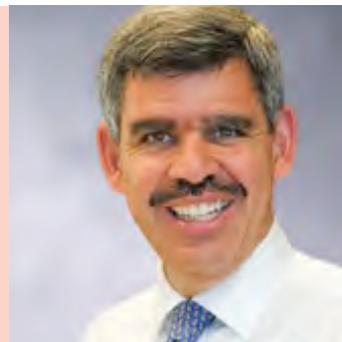
Dr Merah: Gold certainly offers a good alternative investment opportunity, which is highly liquid. However, it cannot be the only solution and the Islamic finance industry must work rigorously to find further solutions in this area. At AAOIFI, however, we would say that one of the reasons for making this standard a priority was to ensure that appropriate products are available to provide investment solutions to customers and allow them to manage liquidity within Shari'ah-compliant options. ■

Smart investing in a low-interest rate world

Mohamed El-Erian is chief economic adviser at global insurance giant Allianz and former CEO of PIMCO, the world's biggest and most influential bond investment firm. Here, El-Erian, dubbed one of the 'Top 100 global thinkers', assesses the challenges faced by the global investment community and the valuable role that gold can play in today's uncertain environment.

Mohamed El-Erian

Chief Economic Adviser
Allianz



1
The US election takes place in just two weeks and the outcome remains highly uncertain. But do you think that financial markets are more likely to respond to macroeconomic conditions than to the result itself?

So far, markets have brushed off what has been, to say the least, a rather unusual election season. Valid reasons for this include the institutional checks and balances built into the US political system. Unless Congress swings in an unexpected manner in favour of the next President's party, whoever is elected to the White House would find their degrees of freedom quite limited – especially given some of the statements that have been made on the campaign trail.

Yet such valid reasoning is not sufficient to explain the extent to which markets have ignored political developments. Moreover, you need only look at how fast investors overcame their initial Brexit fears to realise that something else has been in play – and that is, enormous faith in the ability of central banks to repress financial volatility and to succeed in doing so almost regardless of political and economic developments.

I suspect that such central bank effectiveness is in the process of changing, if not eventually waning. As such, political developments may have a bigger impact on markets in the months to come.

“
So far, markets have brushed off what has been, to say the least, a rather unusual election cycle.
”



“

As more people are realising, there is a cumulative cost to running complex economies at low growth speed for a long time.

”



2

As the Chair of the President's Global Development Council what do you think is the biggest threat to sustainable economic growth?

Like many economists, I worry about three main developments in advanced economies that accentuate the internal challenges facing many countries, as well as secular challenges (such as climate change):

First, the extent to which political polarisation is delaying and frustrating a much needed economic policy pivot: away from excessive reliance on central banks and towards a more comprehensive policy approach that includes pro-growth structural reforms, more balanced demand management policies (including larger infrastructure investment), addressing pockets of crushing over-indebtedness, and improving global and, in the case of Europe, regional policy coordination.

Second, the excessive and alarming worsening of the inequality trifecta – that is, the inequality of income, wealth and opportunity. That tends to complicate the political environment, thereby further reducing the probability of good economic governance. It also fuels anti-globalisation pressures, including protectionist threats to growth.

Third, an economic and financial system that, for quite a few years now, has excessively borrowed growth and financial returns from the future; and has done so without improving the prospects for higher inclusive and sustainable growth.

3

Recently, you have talked about the impact that 'jumps' in market prices can have on investors. Do you think their frequency/magnitude will continue to increase over time?

Yes, and for reasons pertaining to economics, policies and politics.

As more people are realising, there is a cumulative cost to running complex economies at low growth speed for a long time. Things start to break, and they could do so in a cascading fashion. The related risk of large jumps increases when financial markets have already been decoupled from validating economic and corporate fundamentals, as is already the case today.

A prolonged period of an unbalanced macro-policy mix, such as that which has been experienced by advanced economies, adds to the risk of jumps; and especially so when there has been excessive and prolonged reliance on experimental central bank policies. Add to that a political context that fuels the emergence of anti-establishment movements on both sides of the Atlantic, and you end up with the ingredients for more frequent and larger sudden market moves.

4

You have written about the distortions that low interest rates are creating. Given the current interest rate environment, how do you see negative interest rates affecting asset allocation and risk management?

A prolonged period of low and, especially, negative nominal interest rates was once thought unlikely if not unthinkable. It is now reality, with some 30% of global government debt trading at negative yields. While some of the consequences for investors have transpired or are in the process of doing so, I suspect that many more are yet to play out.

“Ultra-low interest rates entice investors to stretch much more for returns. You could well end up with excessive risk-taking on the part of too big a portion of the investor base.”

Ultra-low interest rates entice investors to stretch much more for returns. Combine this with repressed financial volatility, another objective of unconventional central bank policy, and you could well end up with excessive risk-taking on the part of too big a portion of the investor base. In the process, market valuations decouple meaningfully from underlying economic and corporate fundamentals.

Such an interest rate set-up also lowers the risk-mitigation effectiveness of portfolio diversification. As such, investors would be well advised to hold bigger cash cushions as part of their risk mitigation approach.

Finally, ultra-low interest rates make life more challenging for providers of long-term financial protection products, particularly in the retirement and insurance space.

5

What about the known unknowns (let alone the unknown unknowns) this low rate environment brings?

Given that we are essentially in uncharted waters, we do not as yet have a good enough handle on how modern market-based economies operate when faced with a prolonged period of artificial pricing. There is a sense that the risk of collateral damage and unintended consequences is meaningful, but specificity is understandably hard to pin down with sufficient conviction.

Unless validated by improving economic and corporate fundamentals, investors face major uncertainty with respect to the trio that determines their wellbeing – that is, expected returns, volatility and correlations between asset classes. In particular, there is the possibility of much lower returns given the decoupling of valuations from fundamentals, more frequent and sharper volatility spikes, and even more unpredictable correlations.

The institutional setup is also in play, including a growing threat to the political autonomy of central banks.

These are some of the known unknowns... and then there is the even more uncertain issue of the unknown unknowns – all of which speak to the ‘unusual uncertainty’ facing investors.

6

Might gold be part of the solution?

Yes, and this is increasingly recognised by the investor community.

As part of a diversified portfolio allocation that includes a higher-than-usual cash allocation, gold can play an important role in overall risk mitigation. It can also provide a notable upside should the enormous amount of central bank liquidity injection gain traction and result in higher inflation, be it actual or expected.

Having said that, investors should size their gold allocation in a manner that enables them to stomach considerable mark-to-market price fluctuations. Otherwise, they run the risk of doing the wrong thing during periods of unsettling market volatility. A 5% strategic allocation is appropriate.



7

The Japanese GPIF, the world's biggest pension fund, announced a ~US\$52 billion loss in the past quarter, highlighting the crisis affecting many developed market pension funds. What is your perspective of this problem?

This is a tough environment for providers of long-term financial security products, including pension funds. From ultra-low interest rates to unpredictable asset class correlations, it is hard for them to operate.

The prudent thing to do in such an environment is to lower return objectives and to save more – none of which comes easy to underfunded pension plans, be they in the private or public sectors.

8

In recent years, an increasing number of US insurance companies have included an allocation to gold in their investment portfolios. Do you see this trend continuing and will other institutional investors follow suit?

Yes, and driven by both positive and negative reasons.

A growing number of investors are recognising the potential of gold to increase returns and improve risk-mitigation attributes of well-diversified portfolios. At the same time, there are – understandably – growing worries about the over-valuation of public equities and fixed income, thereby strengthening the case for an appropriately-sized allocation to gold. ■

The growing appeal of gold in Japan

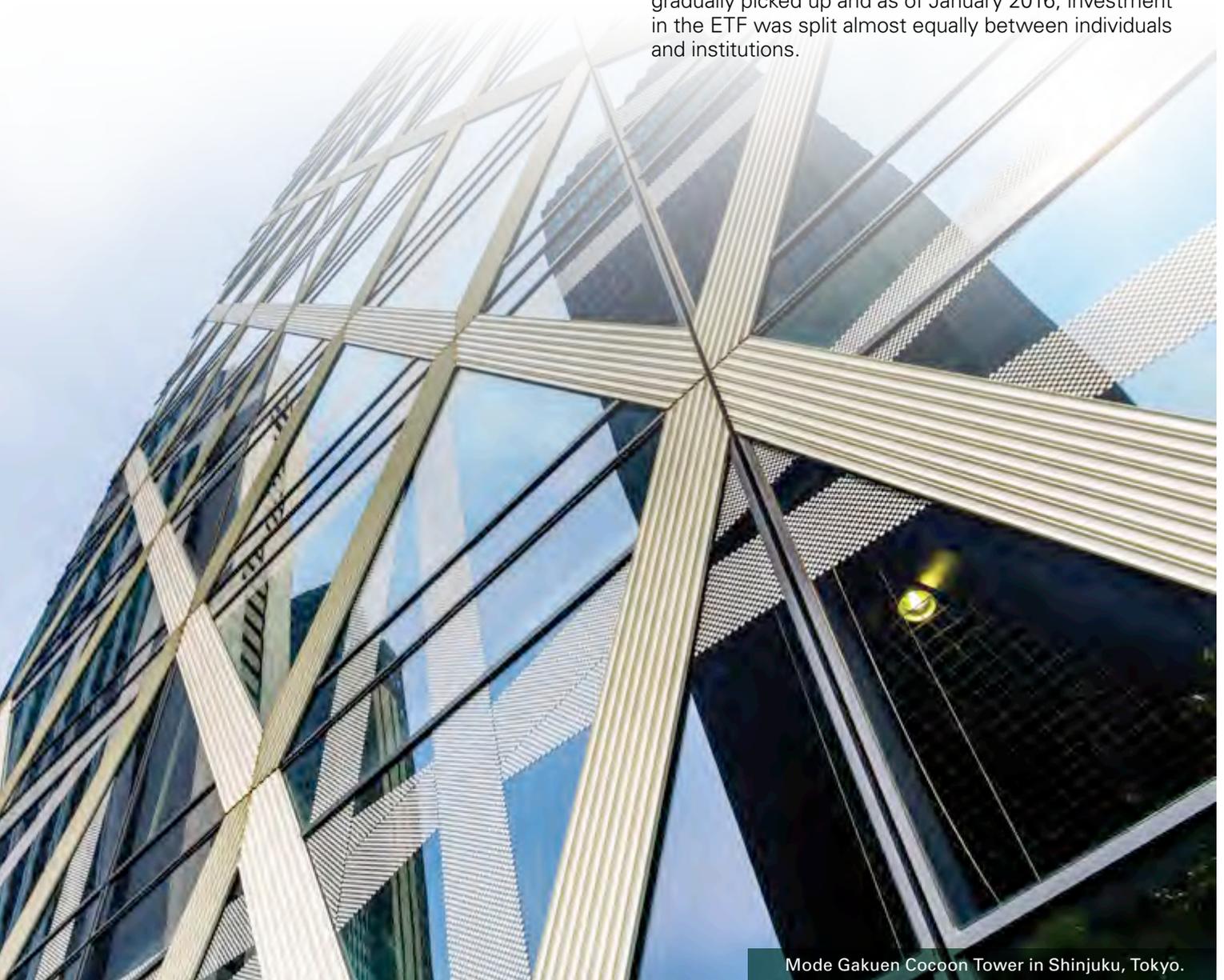
Japan has long been characterised by low economic growth, volatile capital markets, ultra-low interest rates and an ageing population. Against this background, gold has a clear role to play within investment portfolios and institutional interest is rising steadily, as **Osamu Hoshi**, Executive Officer at leading Japanese trust bank Mitsubishi UFJ Trust and Banking Corporation explains.

Osamu Hoshi

Executive Officer
General Manager
Frontier Strategy Planning
and Support Division
Mitsubishi UFJ Trust and
Banking Corporation



In July 2010, MUTB launched its gold exchange-traded fund (ETF) on the Tokyo Stock Exchange. Backed by gold bullion, 'Fruit of Gold' was principally of interest to individual investors in the early years. But institutional demand gradually picked up and as of January 2016, investment in the ETF was split almost equally between individuals and institutions.

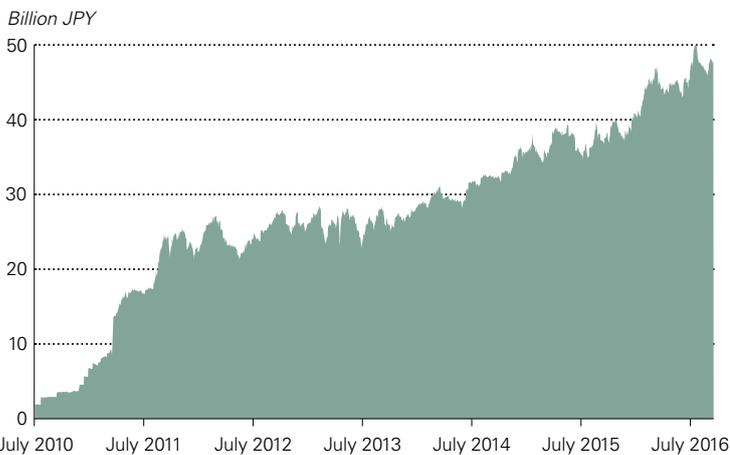


Mode Gakuen Cocoon Tower in Shinjuku, Tokyo.



Shibuya Crossing, Tokyo.

**Chart 3: Assets under management of “Fruit of Gold”
7/2/2010 – 9/15/2016***



*Listing date.
Source: Mitsubishi UFJ Trust

The real change occurred in the second half of 2015, when financial institutions began to adopt a different attitude towards gold. Until then, institutional interest had been fairly muted in Japan. But, as global financial markets became increasingly volatile, gold’s appeal increased. Several factors lay behind this shift. First, the gold price was relatively stable compared to stock and currency markets. Second, gold has a historically low correlation with conventional investment assets. And third, the US dollar/Japanese yen exchange rate is inversely correlated to the US dollar-denominated gold price so there is less fluctuation in yen-denominated gold prices than dollar prices.

As one financial institution in Japan explained: “With global interest rates at historically low levels, our concerns about gold as a non-yielding asset have receded. At the same time, we are naturally drawn to the comparatively stable performance of gold, given the fluctuations in financial markets.”

Pension contribution

Gold’s appeal in the current economic and monetary climate has spread to pension funds too. The yellow metal is playing an increasing part in defined benefit (DB) and defined contribution (DC) pension plans.

In the corporate pension sector, more than 200 DB pension funds have invested in the ‘Fruit of Gold’ ETF through a commingled fund or in balanced funds that include gold. Interest has been rising steadily and demand is widely expected to increase.

“ As global financial markets became increasingly volatile, gold’s appeal increased. Several factors lay behind this shift. ”

“ On the institutional front too, asset managers increasingly recognise that gold offers clear diversification benefits as part of a balanced investment portfolio. ”

In the DC sector, more than 160 companies have added the MUTB Fine Gold fund (which mostly invests in the ‘Fruit of Gold’ ETF) to their lists of available investments to investors. While this is small in terms of absolute scale, the fund has been growing fast. Two years ago, it amounted to about ¥600 million (approx. US\$6 million). Now it has almost tripled to over 1.9 billion JPY, graphic evidence of gold’s growing appeal.

The surge in demand is particularly notable, given the way in which Japanese DC pensions operate. In corporate DC plans, sponsors determine the range of available products and beneficiaries make their own individual selections from this line-up. Under individual DC plans, savers can select investment products directly, provided they are offered by the financial institutions behind the scheme.

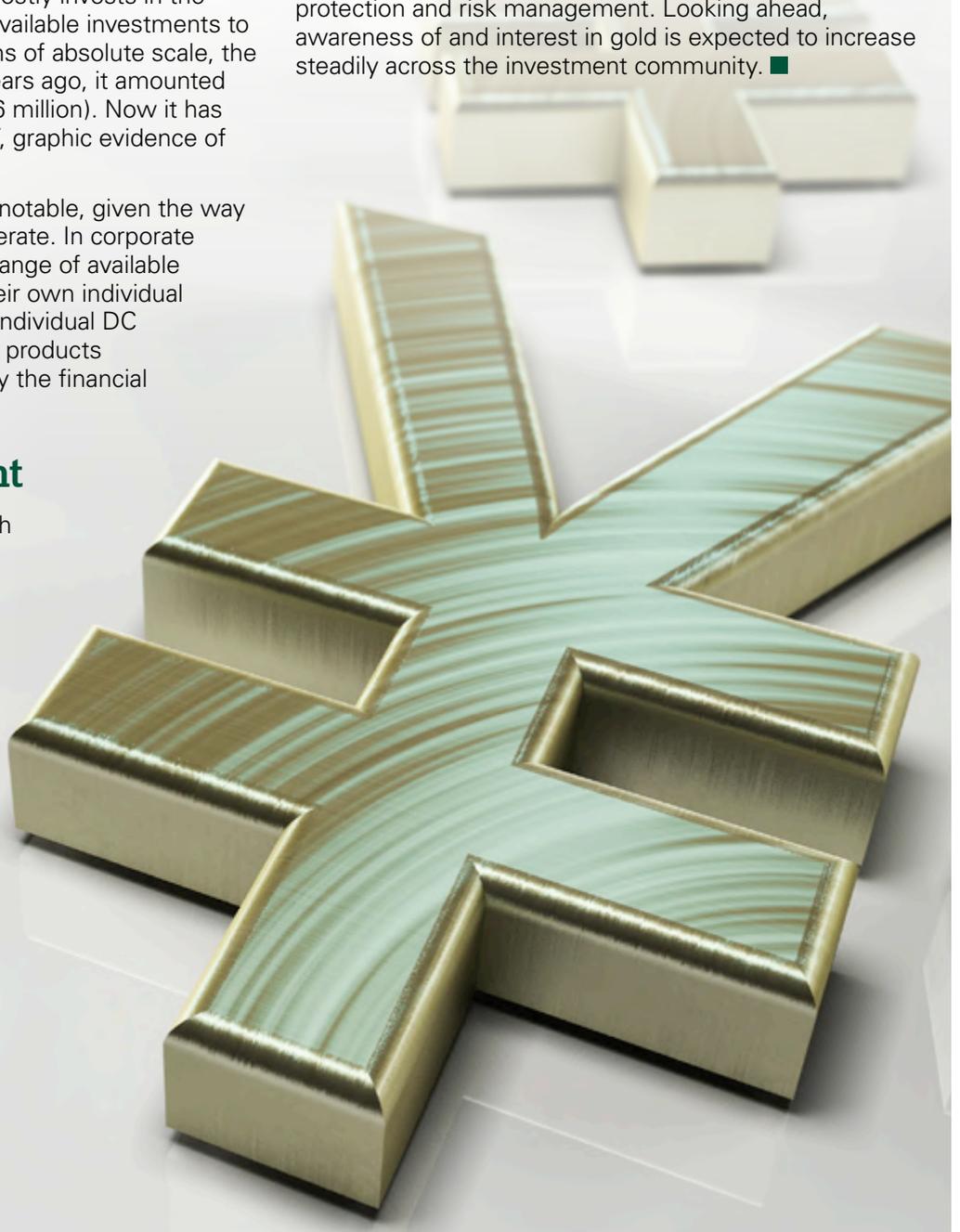
Increasing investment

One financial institution alone, which introduced the Fine Gold product for individual DC plans in April, accumulated ¥200 million (approx. US\$2 million) of investment money in just four months, underlining gold’s growing acceptance as a savings and wealth accumulation tool.

Looking ahead, further investment in gold is widely expected. Almost 5.75 million people were enrolled in DC pensions in Japan at the end of March 2016, a number that will almost invariably increase over the next five to ten years.

On the institutional front too, asset managers increasingly recognise that gold offers clear diversification benefits as part of a balanced investment portfolio. This is likely to drive demand for a range of gold investment products, including our gold-backed ETF.

In essence, the perception of gold is changing among Japanese investors, driven by a growing appreciation of gold’s contribution to portfolio diversification, wealth protection and risk management. Looking ahead, awareness of and interest in gold is expected to increase steadily across the investment community. ■



Modernising the London gold market

LMEprecious is a major new initiative designed to reinvigorate the London wholesale gold market. Launched jointly by the World Gold Council and the London Metal Exchange (LME), LMEprecious comprises a suite of exchange-traded and centrally cleared precious metals products. And it has been created in partnership with leading industry players, as **Robin Martin**, Managing Director Market Infrastructure at the World Gold Council and **Garry Jones**, CEO of the LME explain.

Robin Martin

Managing Director
Market Infrastructure
World Gold Council



Garry Jones

Chief Executive Officer
London Metal Exchange



City of London.

Robin Martin **World Gold Council**

Over the last few years, gold market participants have faced an unprecedented range of regulatory changes and influences. Regulators are encouraging most asset classes to use electronic trading venues and central counterparties for clearing. The relative cost of bilateral over-the-counter (OTC) trading has increased, following additional capital requirements under Basel III and separate EMIR obligations. In addition, the London gold market has long faced calls for more transparency around both market activity and participant conduct.

These regulatory drivers have directly contributed to some major market participants exiting the gold market over the last two years. The resultant loss in liquidity motivated the industry to respond and develop a structure that was aligned with current and anticipated regulatory developments. The time was right to introduce operational and cost efficiencies across the trade lifecycle through product standardisation.

Industry partnership

To validate the appetite for industry change, we began this initiative as a broad industry consultation. As a result, LMEprecious has been developed in partnership with leading industry players, including Goldman Sachs, ICBC Standard Bank, Morgan Stanley, Natixis, OSTC and Societe Generale. Enlisting a group of highly supportive financial institutions from the outset ensured that the product offering was developed with extensive input from some of the most experienced traders and specialists in the market. Moreover, this group is bound to a long-term partnership, which will see individual firms acting as liquidity providers, helping to develop efficient pricing and robust market depth on the exchange. The industry group will also consult with the wider market on the future evolution of the service.

LMEprecious will comprise a suite of exchange-traded and centrally cleared precious metals products. The offering will complement the professional London OTC market with a capital-efficient range of products that increase transparency and broaden market access. The intent is to reinvigorate and grow the London gold market, ultimately helping to boost confidence in gold as an efficient and highly liquid financial asset.

Optimal structure

The product suite will include gold and silver contracts comprising spot, daily and monthly futures, with options to follow once sufficient underlying liquidity has been established. Uniquely, individual daily futures will exist out for the first month allowing market participants to manage physical inventories and risk exposures at a granular level. All products will settle physically into *loco* London unallocated accounts, the infrastructure that also underpins the OTC market.

All products are structured as futures contracts, as this contract type is the most efficient from a risk-netting and margining perspective. The products can be traded both on-screen ('central limit order book') or bilaterally negotiated via telephone and registered onto the exchange, replicating characteristics of the OTC market.

.....

“ Central clearing will bring additional transparency to the London market and enable broader market access to a diverse range of participants. ”

.....

In our view, this initiative will benefit the overall gold industry in several important ways. The introduction of central clearing facilitates a systemic reduction of counterparty risks, a major objective of the G20 group of nations. More generally, central clearing will bring additional transparency to the London market and enable broader market access to a diverse range of participants. We expect that competitive on-exchange pricing will boost market efficiency and also reintroduce publication of forward reference prices, helping revive forward market activity. Together **we see these developments as helping to cement London's role as the world's primary gold trading centre.**

Garry Jones London Metal Exchange

LMEprecious blends the daily structure of the London over-the-counter market and the monthly futures approach of the existing exchange offerings.

For the first time ever, market participants will be able to trade spot gold, 'tom next' gold, and a date structure out to 25 days all on one platform with a central counterparty. LMEprecious will also offer standardised monthly futures contracts out to five years, again on the same platform.

Investors will benefit from transparent pricing with a forward curve going out five years, as well as displayed electronic liquidity. The LME's market-making partners will deliver deep and tight executable prices.

A unique development

Having developed LMEprecious with the World Gold Council and our six trading partners, we have been able to structure it following extensive input from the market. In other words, this is not a case of: 'Build it and they will come'. Instead, **it has been tailored to address the needs of market participants – and with strong liquidity support from day one.**

The LME structure is significant too. Uniquely among exchanges, our structure is similar to, and supports, the OTC market so trades that were previously executed bilaterally can seamlessly be brought on exchange and cleared. While we clearly expect some business to remain bilateral, the efficiencies of the exchange-traded offering will make it attractive for inter-bank and hedging business to migrate onto the LME.

LMEprecious will bring several other advantages too.

Broad-based benefits

First, dealing with a central counterparty for spot gold means that **capital requirements are substantially less than those for bilateral trades**, thereby delivering meaningful gains from a regulatory capital perspective.

Second, launching this offer in the UK, physically delivered against local London delivery, maintains many aspects of the existing market even as it creates efficiencies at the trading end of the value chain.

Third, the LME already has the necessary technology, infrastructure and clearing links for this new segment of the market so existing LME members can simply opt in to it at minimal extra cost. Using LMEprecious will be straightforward for non-members too. They can either apply to be members through our usual channels or access the market as a client of an existing member.

As an international exchange owned by the Hong Kong Stock Exchange, the LME is also ideally positioned to make LMEprecious work for the gold market, delivering the transparency and depth that investors seek.

The support of the World Gold Council and our trading partners is crucial too. **The World Gold Council's initiative and leadership helped to kickstart the project, while their role across the gold industry has given LMEprecious added impetus and influence.** Our trading partners have also committed to provide liquidity from the start, thereby ensuring that LMEprecious will play an active role in the gold market from day one.

Market response to date has been phenomenal. We have held a number of seminars, events and bilateral meetings in various locations, as well as workshops for operational staff involved in the processing of LMEprecious business.

We are currently working with potential users, clearing members and technology providers to ensure technical readiness in advance of our launch next year. We are also working closely with our regulators to ensure all regulatory requirements are in place for go-live. This is the single, biggest project that the LME is undertaking over the next 12 months. We are determined to make it a success. ■

Working towards a successful launch

The new service will be launched in the first half of 2017, subject to regulatory approvals and other dependencies. The immediate focus of the LME and its partners is to broaden market engagement while implementing the required infrastructure. We openly welcome discussions with market participants about any aspect of this initiative.

Global imbalances and the implications for gold

Dr Martin Murenbeeld

Chief Economist at Canadian economic and gold consultancy Dundee Economics



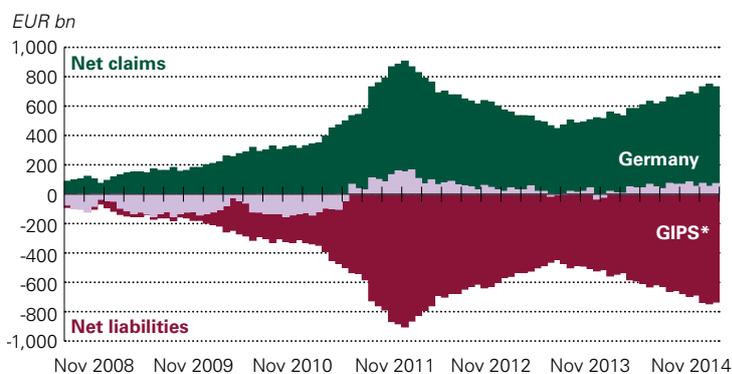
Global trade imbalances have reached a dangerous stage and current policies seem powerless against them. **Dr Martin Murenbeeld**, chief economist at Canadian economic and gold consultancy Dundee Economics, argues that dramatic currency devaluation is required to put the world back on track – a scenario that will have a significant impact on the gold price.

The gold price is affected by a variety of factors, including concerns about macro-economic and political stability, currency movements, policy decisions, interest rates and economic growth.

However, one crucial factor in the outlook for the gold price has been virtually overlooked: the number of significant trade imbalances in the global economy.

The US has large trade deficits with China, the Eurozone and Japan. Germany has one of the largest current account surpluses (GDP-adjusted) in the world, and significant trade surpluses with the southern half of the Eurozone.

Chart 4: TARGET balances show widening gap in Eurozone

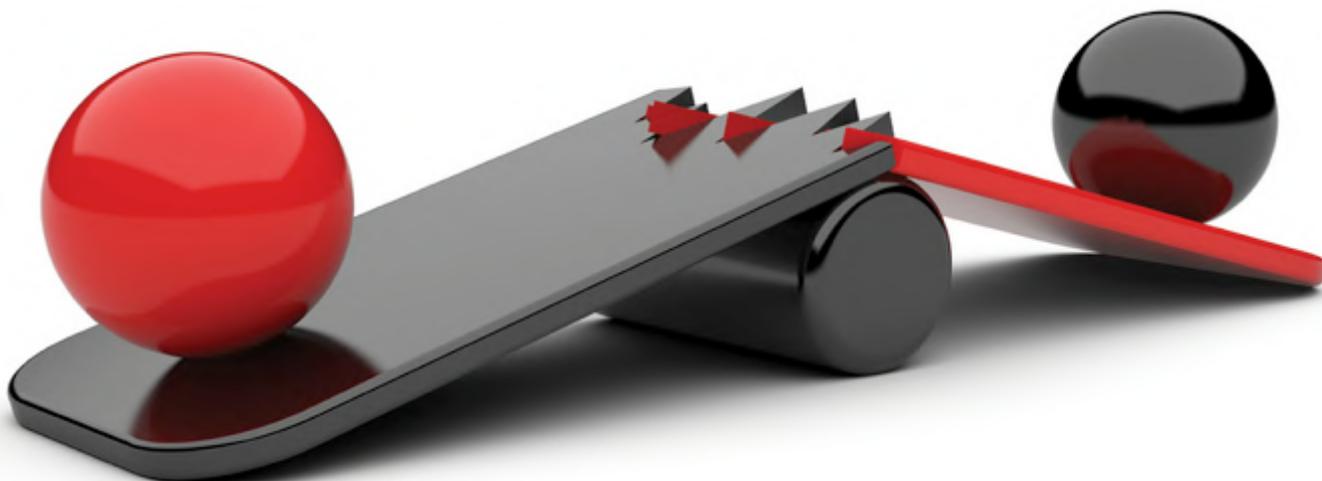


*Greece, Italy, Portugal, Spain.

Source: ECB; TARGET = Trans-European Automated Real-time Gross Settlement Express Transfer System

These imbalances suggest that many currencies are badly misaligned, a major factor behind the 'secular stagnation' of numerous economies.

The situation cannot continue indefinitely so eventually there must be a correction. Protectionism is on the rise, but at some stage, significant exchange rate realignments will be required. And these will have a positive impact on the price of gold.



Europe and the US exemplify the current impasse. The southern Eurozone cannot devalue its currency so it can only move towards trade equilibrium with the north through internal deflation. And the US must also *deflate* its way to equilibrium with Asia, if it cannot devalue the US dollar.

Table 1: Currency: Undervalued versus US dollar

	PIIE Zero CA Balance ¹	Economist Big Mac Index ²
Euro	39.0	16.6
RMB	34.3	44.7

The Euro and RMB are significantly undervalued against the US dollar: as much as 39% and 44% respectively according to these estimates.

1 Dundee Economics calculations based on PIIE FEER model.
Peterson Institute of International Economics: <https://piee.com/publications/policy-briefs/estimates-fundamental-equilibrium-exchange-rates-may-2016>

2 The Economist *Big Mac Index*, 3 July 2016.

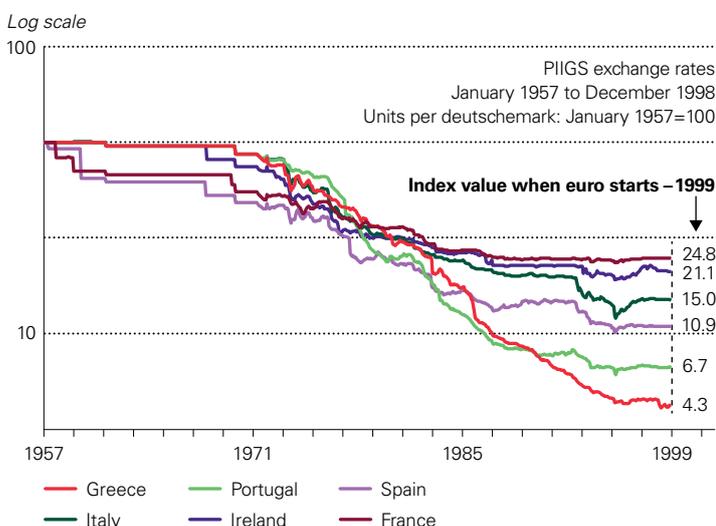
Deflation is already a problem in many economies. But the monetary policy options for dealing with it have become increasingly limited, 'non-traditional' and of dubious efficacy.

Today, fiscal reflation is touted as the next weapon in policymakers' armory – in other words larger budget deficits, potentially coupled with 'helicopter money' policies to limit the impact on interest rates.

But fiscal policy will not address global imbalances in any meaningful way. Only currency realignment can help to raise the rate of inflation, increase domestic employment, return policy interest rates to more 'normal' levels, fight 'secular stagnation' and attack global imbalances head-on.

Chart 5: The Eurozone

Before euro: currencies systematically devalued



Source: Thomson Reuters Datastream; Dundee Economics

It is not that long ago since currency realignments were an integral part of the policy toolkit. Between 1957 and 1999, for example, the Greek drachma was devalued by 96% against the deutschemark. The French Franc was devalued by 75% against the Germany currency over the same period.

Opinions vary as to whether such currency devaluations were good or bad. But one thing is clear: since the euro was adopted in 1999, and a flexible exchange rate system in Europe was turned into a fixed-exchange rate system, economic growth in many Eurozone countries has been abysmal – worse in some cases than during the Great Depression. (And the Great Depression itself ended in part following currency realignments – the US dollar was devalued against gold and other currencies were taken off the gold standard altogether).

Some argue that the US Treasury cannot devalue the dollar, even if it wanted to. But this is not true. China amassed nearly US\$4 trillion of currency reserves in recent years, persistently holding down the value of the RMB against the dollar along the way. There is nothing to stop the US Treasury from doing the same thing: announcing targets for the dollar and intervening accordingly.

Indeed, the most obvious solution to global imbalances is clear: the US dollar should devalue against Asian currencies, and the euro should be split in two so that the southern Eurozone can devalue against the North.

This may sound drastic, but the global economy is in a painful place and neither monetary nor fiscal policies are capable of curing the patient on their own.

A third policy tool is required

The US needs to consume less and produce more, Asia needs to consume more of its own output and Germany needs to boost Eurozone demand by taking in more goods and services from the region's southern half. Currency realignments would help to resolve all three issues.

Which brings us back to gold. Come what may, the dollar will eventually decline and gold will then almost assuredly rise in dollar terms. It is difficult to say what level the gold price will start from and what level it will get to, but when the dollar falls, gold will rise substantially. And, if and when the Eurozone splits, gold will also rise in the South's new currency.

Even if policymakers refuse to engineer the necessary currency realignments, the outlook for gold is positive. The forces of protectionism will rise, discontent with sluggish growth will increase and voters will turn to economic jingoists. Against such a background investors will turn increasingly to 'safe' investments in a volatile world. And that means demand for gold is bound to grow. ■

Breaking the mould – a guide to gold valuation

Juan Carlos Artigas

Director
Investment Research
World Gold Council



Gold does not fit within traditional valuation models. Demand can be boosted by economic growth as well as by uncertainty and, since gold is a global asset, demand tailwinds from one region may counteract headwinds from another. These seeming contradictions pose their own challenges but also give gold its core characteristics as an investment. And, as **Juan Carlos Artigas**, Director of Investment Research at the World Gold Council explains, each can be addressed using a simple and comprehensive framework.

There is little doubt that gold is a complex, multi-faceted asset. But that is an integral part of its attraction.

Over many decades, gold has proven that it has a low correlation to other assets; it is a long-term store of wealth and it tends to outperform during periods of heightened uncertainty.

Certainly, gold does not conform to most common valuation frameworks used for bonds or stocks. Without a coupon or dividend, typical discounted cash flow models fail. And there are no expected earnings or book-to-value ratios either.

“Valuing gold is, in essence, intuitive. Its equilibrium price is where demand and supply meet.”

But there is a good reason why gold does not pay a coupon: as a hard currency, it carries no credit risk. As for companies' future earnings, these are, at best, guesstimates and analysts frequently provide widely different forecasts using similar information.

In other words, there is little reason to avoid gold simply because it does not adhere to the methodologies used in traditional valuation frameworks.

Valuing gold is, in essence, intuitive. Its equilibrium price is where demand and supply meet. Understanding the underlying drivers and interactions of gold demand and supply should therefore give investors a robust framework to determine the value of gold.

However, most valuation models for gold suffer from three shortcomings:

- The primary use of US (and Western) driven variables
- An overwhelming focus on investment demand
- A disregard for supply-side dynamics.

This may have worked in the past when Western markets dominated demand/supply dynamics. But, the situation has changed significantly.

Consumption, investment, both

It is often said that positive economic growth is bad for gold. But evidence suggests that the opposite is true. The combined share of world gold demand for India and China grew from 25% in the early 1990s to more than 50% by 2015.

“In both India and China, gold demand is closely correlated to increasing wealth. Elsewhere too, jewellery and technology demand are positively correlated to economic growth.”

Last year alone, consumers and investors in China bought almost 2,000t of gold – 25% more gold than the cumulative growth of all gold-backed ETFs from 2004 to 2015. And, in both India and China, gold demand is closely correlated to increasing wealth. Elsewhere too, jewellery and technology demand are positively correlated to economic growth.

Gold investment demand however, can, over the short and medium term, exert strong pressure on prices. This type of demand, from the physical (and physically-backed) markets to exchange-traded derivatives and over-the-counter products, increases during periods of economic and political uncertainty and falls as investor confidence grows.

Central bank demand can influence the market too. Similar in principle to investment demand, it is actually driven by policy and is often indifferent to the business cycle.

The importance of scarcity

Even models that take into account economic growth and structural shifts still fail to include a basic (and quite important) premise: gold is scarce. Its availability is driven by just two factors: whether mines have the capacity to produce new gold and whether investors or consumers are willing to sell existing gold.

Using interest rates to forecast the gold price, for example, makes two false assumptions. First, that rates determine the direction of prices, regardless of supply and second, that investment demand drives prices over the long term.

The way forward

Gold's reality is more complex and more interesting. Broadly speaking, drivers of the gold price can be grouped into four categories:

- **Currencies:** gold responds to the relative strength of fiat currencies, especially the US dollar.
- **Economic growth and market uncertainty:** periods of growth are very supportive of jewellery, technology, and long-term savings, but downturns can boost investment demand.
- **Tactical flows and price momentum:** short-term capital flows can exert pressure on gold prices.
- **Other internal gold market dynamics:** these include central bank buying, seasonal consumption, and mine production.

A more robust understanding and valuation of gold requires a combination of a top down and bottom up approach, where physical demand and supply and derivatives markets are modelled using macroeconomic variables, and their interactions are linked through the price of gold.

This approach reveals that:

- **Jewellery** is negatively correlated to price but positively related to income, and in some countries, to inflation. *At the global level, for every 1% increase in price, jewellery demand falls by 0.6%, but a 1% increase in world GDP leads to a 4.3% rise in jewellery consumption.*

- **Technology** grows with GDP, but there is a substitution effect with copper. *Every 1% rise in world GDP increases electronic demand by 5.1%. The following year about half of this effect, 2.5%, is reversed – highlighting mean reversion in inventories. A 10% increase in the price of gold relative to the price of copper, reduces demand by 0.5%.*

- **Investment** varies according to type:

- **Bar and coin** demand is driven by price and income growth. A 1% rise in gold prices increases bar and coin demand by 0.8%. A 1% drop in GDP would push demand down by 5%, but the effect is reversed the following year by 7.5%. In other words, long-term income growth is positive for demand.

- **ETF** demand is driven by price and uncertainty. A 1% increase in price raises demand by 1%. And, a 1% drop in GDP increases ETF demand by 3%.

- **Derivatives** demand is primarily driven by momentum, as well as inflation and monetary policy expectations. A 1% increase in price raises derivative equivalent demand by 6%. A 1% decrease in rates increases demand by 3%, and 1% steepness in the Treasury curve pushes demand up by 4.5%.

- **Central bank** demand is driven by the level of reserves and the shift of reserves from West to East. For every 1% increase in emerging markets' share of global GDP, gold demand by central banks increases by 5%.

- **Mine production** is driven by cost and persistence. A 1% increase in cost reduces mine production by 0.5% the following year. But for every 1% rise in mine production in one year, there is a 0.5% rise in production the following year.

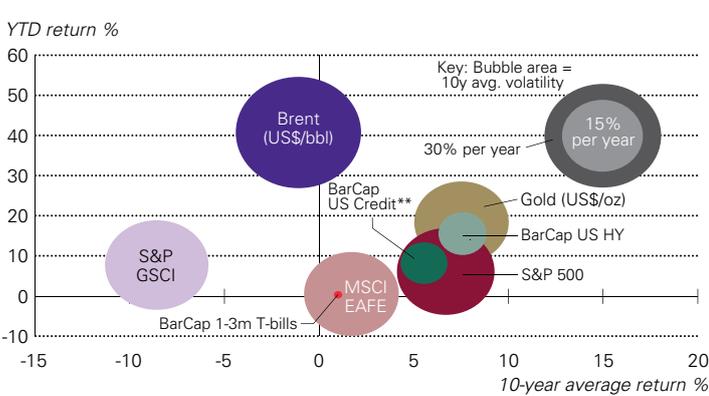
- **Recycling** is positively correlated to price and negatively correlated to growth, but it also tends to mean-revert. A 1% rise in price encourages 1.1% more recycling, but this effect is largely reversed the following year. A 1% rise in global GDP reduces recycling by 5.5%.

Because many of the inputs for the model are either lagged variables (and thus observed) or forecasts (official or otherwise), they can be used to predict each of the components of demand and supply. The difference between supply and demand represents the imbalance that would exist in the market if the gold price were static. But from this imbalance, we can also infer the change in price necessary for the market to be in equilibrium.

Put together, this framework allows investors to use current variables and readily available economic forecasts to form a consistent, self-contained and intuitive view on gold. ■

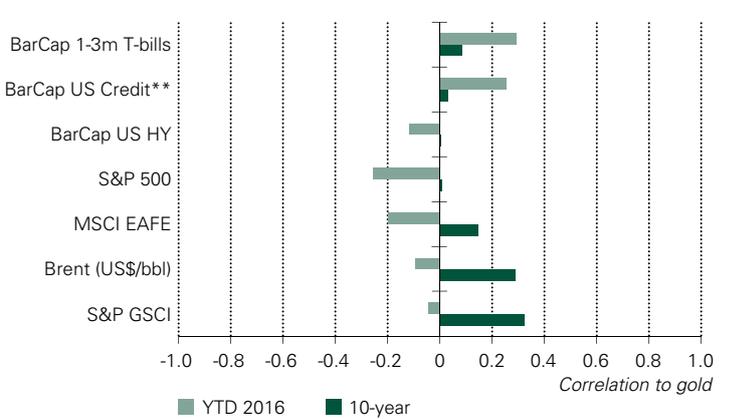
Key gold market statistics

Gold returns highly competitive compared to major financial assets



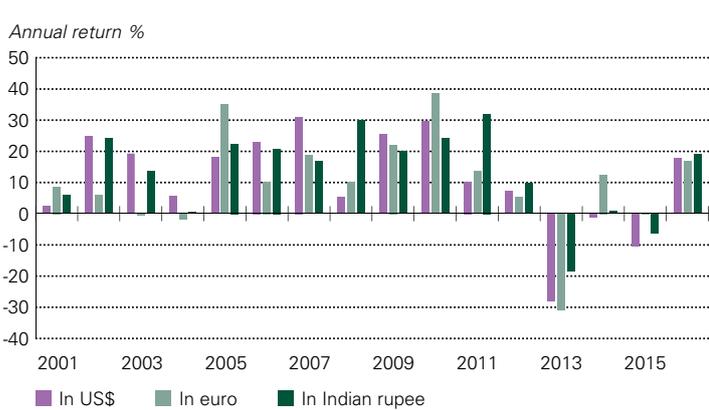
*Year-to-date performance as of 14 October 2016.
 **BarCap US Credit includes both government and high grade corporate bonds.
 Source: Bloomberg; World Gold Council

Gold has been inversely correlated to stocks and high yield in 2016



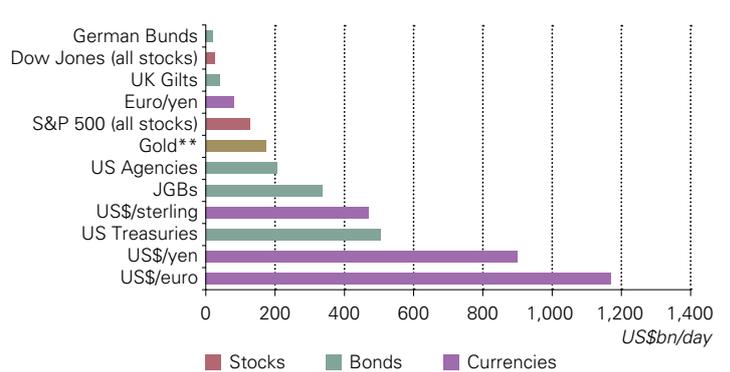
*Year-to-date correlation as of 14 October 2016.
 **BarCap US Credit includes both sovereign and corporate bonds.
 Source: Bloomberg; World Gold Council

Gold performance should be measured in more than one currency



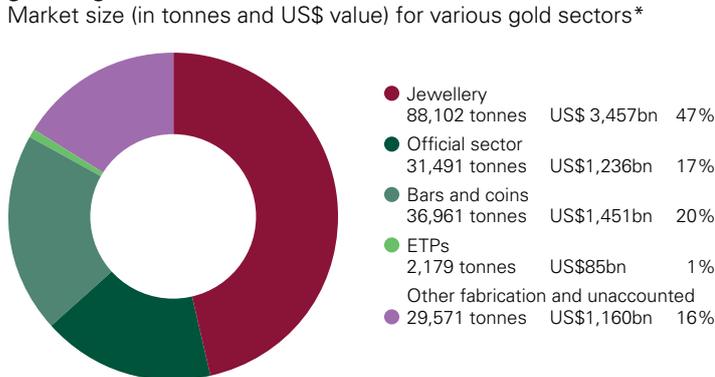
*Year-to-date as of 14 October 2016.
 Source: Bloomberg; World Gold Council

Gold trades more than many other major financial assets



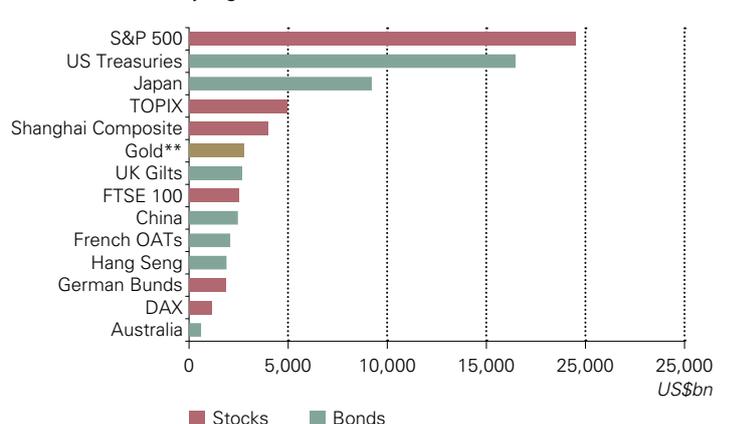
*Based on estimated annual averages as of September 2016.
 **Gold liquidity includes estimates on over-the-counter (OTC) transactions, and published statistics on futures exchanges, & gold-backed exchange-traded products.
 Source: BIS; Bloomberg; German Finance Agency; Japan Securities Dealers Association; LBMA; UK Debt Management Office (DMO); World Gold Council

Financial gold accounts for more than a third of above ground gold stocks



*Volumes as of June 2016, values calculated using H1'16 average LBMA Gold price of US\$1,221/oz. Financial gold is defined as the sum of official sector holdings, bars and coins, and ETPs** (70,631 tonnes, US\$2,772bn, 38%).
 **ETPs include gold-backed exchange traded funds (ETFs) and similar.
 Source: Bloomberg; GFMS, Thomson Reuters; ICE Benchmark Administration; Respective ETP Providers; World Gold Council

Gold market larger than many major stock and bond markets



*As of 30 September 2016 where available, otherwise most recent data published.
 **Includes bars, coins, gold-backed exchange-traded products and official sector holdings.
 Source: BIS; Bloomberg; GFMS, Thomson Reuters; ICE Benchmark Administration; World Gold Council

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