| China | Brexit | Oil Prices

Waste to Wealth

portfolio construction for Income-seeking investors

Systemic Risk
Dear Members,

The Society made progress in adding value to our diverse membership base during 3Q2016.

On 28 Jul, our Career Development Committee (chaired by Kanol Pal, CFA) had a networking session for our Mentoring Programme. The programme came to a close on 13 Sep with enthusiastic feedback about the positive impact it made to mentees' career outlook. Do contact us at info@cfasingapore.org if you wish to be part of the next season of our Mentoring Programme.

On 1 Sep, the committee organized a talk on Career and Financial Goals Planning by Sam Phoen, CFA, the author of High Net Worth Investing - How to grow your wealth through practical asset allocation.

Our Asset Management Committee (chaired by Simon Ng, CFA) reached out to recruiters and professionals from the different disciplines in the asset management industry and invited them to share their experiences with CFA® members and Chicago Booth School of Business alumni. The committee organized an Asset Management Speed Dating event on 2 Jul, where participants interacted with C-Suite executives from the industry as well as the heads of Compliance and Risk Management in a round-table session.

Our University Outreach Committee (also chaired by Simon) had its kick-off meeting on 24 Sep for our next annual University Investment Research Challenge. The committee's other event was on 16 Sep when mid career members (MAS portfolio manager Lim Yun Ching, CFA; Marches en Croissance analyst Lee Yue Jer, and Artisan Partners analyst Terence Lim, CFA) provided NTU students with insights into working in the investment industry.

On 29 Sep, our Professional Development Committee (co-chaired by Alex Ho, CFA; Arun Kelshiker, CFA; and Victor Ong, CFA) jointly organized its second economic symposium with ISCA. Keynote speaker Suan Teck Kin, CFA (UOB Senior Economist) explained the macro-economics behind China's falling foreign reserves, its government debt and capital flow.

On 11 Jul, Peter Lacy, the lead author of Amazon bestseller Waste to Wealth, spoke at our Professional Development talk on how circular economy models are creating competitive business edge.

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On 15 Sep, the committee hosted a Livestream talk cum Q&A broadcasted from Japan where Robert Jenkins, FSIP, Chair of CFA Institute Planning Committee, encouraged members to take a vocal stand on financial reform.

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The committee also organized the following talks: Corporate Governance and Non-profit Leadership; Dealing with Difficult Directors, Colleagues, and Clients; Open Source Solutions in Investment & Risk Analytics.

Our Advocacy Committee (co-chaired by Daryl Liew, CFA and Tan Lay Hoon, CFA) had its third talk for MoneySENSE and SGX's Save and Invest campaign on 9 Jul. Senior CFA members who were panelists at this event were Simon Ng, CFA; Daryl Liew, CFA; Phoon Chiong Tuck, CFA; and Phua Soon Lim, CFA. Simon, Chiong Tuck and Daryl also spoke at the InvestFair on 31 Jul about growing wealth at different life stages.

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Our Networking Committee (chaired by Seow Hock Hin, CFA) had its regular networking drinks sessions such as the F1 Singapore Grand Prix Networking Night at Beer Market @ Clarke Quay on 18 Sep.

Our Board and Committees are committed to bringing you a constant pipeline of exciting and value-added activities. Do approach us if you wish to be in our organizing committees.

Jan Richards, CFA
President
CFA Singapore
Systemic Risk
and the investment professional

Robert Jenkins, FSIP

Waste to Wealth

circular economy

Peter Lacy

portfolio construction for
Income-seeking Investors

Simon Ng, CFA
Daryl Liew, CFA
Phoon Chiong Tuck, CFA
Puah Soon Lim, CFA

China
Brexit
Oil Prices

Henry Syrett
Billy Thorne
Alex Ho, CFA
Rajiv Biswas
Suan Teck Kin, CFA

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China's nominal GDP of US$10.9 trillion in 2015 makes it the world's largest economy after the US. It is the world's largest exporter and the second largest importer with a huge total trade of US$4 trillion.

The potential of its huge domestic consumption power should not be overlooked: It has the world's largest market for cars (2015: 24.6 million new vehicle sales) and outbound tourism expenditure (2015: US$292 billion).

The upside to China’s outbound tourism is underpinned by the data that show its per capita expenditure to be much lower than that of developed nations such as Australia, UK, Germany, Canada, France, and South Korea.

For Mr Suan Teck Kin, CFA, and his team from UOB on Global Economics & Market Research, the hot issues for China are:

- Can we trust the data?
- Capital outflow and flight
- How bad is its debt and leverage?

Here is a summary of his presentation.

**Can we trust PRC data?**

Since the 1990s, commentators have expressed concern about the accuracy of Chinese statistics. In 2007, when PRC Premier Li Keqiang was Party Secretary of Liaoning province, he expressed concern that certain key statistics might sometimes be manipulated for political advantage. This is on top of the challenges of producing accurate statistics for an economy growing as fast as China’s, in which the structures of production and expenditure are changing rapidly.

A study by the International Monetary Fund published in July 2016 concluded that while there is evidence pointing to possible overstatement of China’s output growth, the quantum of overstatement is likely to be moderate and official national accounts and data are likely to provide a broadly reliable picture.

**At the economic update co-hosted by CFA Singapore and ISCA on 29 September 2016, the keynote speaker was UOB economist Suan Teck Kin, CFA. He shared what the bank looks at when deciphering China.**

Other panelists for the evening’s discussion:

- **Henry Syrett**, Partner of Ernst & Young’s Transfer Pricing Services
- **Billy Thorne**, Senior Manager of Ernst & Young’s Asia-Pacific Tax Desk Network
- **Rajiv Biswas**, Asia-Pacific Chief Economist, IHS Markit

The Society’s Treasurer and Board Member, Alex Ho, CFA, was event moderator.
Mr Suan Teck Kin, CFA joined United Overseas Bank, Singapore, as an economist in 2006. In his current role as Executive Director and Senior Economist in Global Economics & Markets Research, he is responsible for economic/FX research with a primary focus on Greater China, as well as other regional economies.

Mr Suan has a wealth of research experience and is fluent in English and Mandarin. He is interviewed regularly on both local and international media. Prior to joining UOB, he had worked as an economist/equity analyst for more than eight years at both OCBC Bank and OCBC Investment Research in Singapore. He had previously worked in Vancouver, Canada and Taiwan. Teck Kin holds a Masters in Economics and a Bachelor of Business Administration degree, from Simon Fraser University, Canada.

San Francisco’s Federal Reserve Bank studied official PRC data between 2000 to 2012 and also concluded that reported output and industrial production figures are consistent both with alternative Chinese indicators of the country’s economic activity (such as electricity production) as well as trade volume measures reported by non-Chinese sources.

“Even though PRC GDP growth rates have slowed down to 6.5% to 7%, an incremental difference of one percentage point now has a much greater impact compared to a decade ago. In 2014, one percent growth in China’s real GDP amounted US$554 billion, compared to only Rmb 214 billion in 2004 due to the different GDP base.

“China generated about 13 million new jobs in 2015 on a GDP growth rate of 6.9%. This means every percentage point of growth added about 1.9 million new jobs to its economy. The enlarged size of its economy means it is able to sustain the current rate of new job creation on a slower growth trajectory.

“China’s official Purchasing Manager’s Index published by its National Bureau of Statistics is around 50 and that is consistent with its output and employment data.”

Factors Driving Foreign Reserve Changes

“After China changed the way it fixed its foreign exchange rate on 11 August 2015, its foreign reserves fell by some US$510 billion, from US$3.84 trillion as at end 2014 to US$3.33 trillion as at end 2015. At this rate of capital flight, does it mean its foreign exchange reserves will be wiped out after 6 years? Where did this half a trillion US dollars go?

“This decline in foreign reserves arose from outbound tourism expenditure, a net increase in outbound foreign investment, foreign currency translation loss, as well as domestic investments.


“Since the mid-nineties, China has gained the name, factory of the world. Companies from developed nations relocated their manufacturing processes to China and its foreign reserves increased significantly over that period because of foreign direct investments.

“About 7 years ago, China began to aggressively increase its real estate and other outward direct investments as well as M&A activity in other nations, putting a downward pressure on its net foreign direct investment. By 2015, outbound financial sector investments amounted to US$142.7 billion, offsetting its current account surplus by half.
“Appreciation of the USD by some 9% in 2015 also contributed to its decline in foreign exchange reserves. About 40% of its financial account investments were denominated in currencies that had depreciated against the USD. Mark-to-market currency translation losses expended some US$178.6 billion of its foreign reserves.

“During the 1990s, part of its foreign reserves were invested in domestic state-owned banks with ensuing IPOs. In 2015, China spent US$48 billion of its foreign exchange reserves recapitalizing China Development Bank and US$45 billion on Export-Import Bank of China, US$40 billion on the Silk Road Fund, US$29.78 billion on Asian Infrastructure Investment Bank, and US$16 billion on Agricultural Development Bank of China. These domestic investments expended another US$178.78 billion of its foreign reserves.”

Is PRC debt a cause for concern?

“China’s central government debt was only 16% of its GDP in 2015, much lower than US government debt (109%) and Japan (248%).

“China has relatively low sovereign debt because some output that should be undertaken by the government (such as mass rapid transport infrastructure) is undertaken by state-owned enterprises which function like private companies. The debt owed by SOEs is categorised as private sector debt. Should the government embark on SOE reform, private sector debt owed by SOEs may be nationalized and converted into government debt.

“The rate of increase in China’s debt burden is significant: In 2007, China’s private sector debt to GDP ratio was 120%. Eight years later in 2015, this has surged to 204%. An implosion of the banking sector would have a devastating effect on the labour market. That is why its government is careful about implementing reforms at a pace that does not disrupt the economic system.”

Brexit

In June 2016, UK citizens voted to leave the European Union. In October 2016, British Prime Minister Theresa May announced that she would invoke Article 50 by 1Q2017, which kicks off a 2-year period of Brexit negotiations.

Henry Syrett (Ernst & Young Partner, Transfer Pricing Services) and his colleague Billy Thorne (Senior Manager, ITS - UK Tax Desk Asia-Pacific) shared insights into how the UK economy will be impacted.

Billy Thorne relocated to Ernst & Young Solutions LLP’s UK tax desk for the APAC region in 2016. He has 12 years of experience of working in UK corporate tax and was providing compliance, tax accounting and advisory services to a wide range of clients, with a significant focus on Asian inbounds into the UK with the London Mid Markets team.

Billy earned his legal bachelor’s degree in taxation and revenue law from the University of Bournemouth. He is a member of the Association of Chartered Certified Accountants and a Chartered Tax Advisor.
Henry Syrett is a Partner in the Tax practice and has been based in Singapore since 2007, providing advice on transfer pricing and Operating Model Effectiveness. He is a regular speaker on transfer pricing matters at associations and seminars. He has also written articles in various publications on transfer pricing and business restructuring topics.

He graduated from the University of Durham (UK) with an Honours degree in Modern European Languages. He is a member of the Institute of Chartered Accountants of Scotland.

Oil & Gas Market Impact on ASEAN

IHS Markit Asia Pacific Chief Economist Rajiv Biswas provided his insights into the impact that the slump in world oil prices had on ASEAN energy exporting nations, including Malaysia, Indonesia, and Myanmar.

Demand and supply factors point to gradual oil price recovery

“At the OPEC meeting on 28 September 2016, OPEC oil ministers agreed to try to manage the oil output at about 33 million barrels per day, the first cut to output since the 2008 global financial crisis.
“Trying to enforce the agreement has historically been very difficult but we think that the imbalance in oversupply in the past 2 years is gradually adjusting. There are fundamentals supporting the oil price regardless of whether there is agreement between the OPEC oil ministers.

“This long period of oversupply was due to the U.S. ramping up oil production during 2008 to 2015. Since the peak of its production in the middle of 2015, the U.S. has cut back oil production by almost a million barrels a day, in response to the sharp fall in oil prices. U.S. production is still falling. EIA data for June 2016 showed a month to month output decrease of 193,000 barrels per day settling at 8.7 million barrels per day, a 926,000 barrels per day decline from its peak in April 2015.

“We think that further downward adjustment in oil production is likely to take place in the U.S. through early 2017 and that is helping to deal with the oversupply in the oil market.”

Why has the oil price level remained half of where it was before 2014?

Iran has one of the world’s largest proven oil reserves but its oil export had been limited in the past 4 decades due to economic sanctions from the U.S. and the European Union. The sanctions were lifted in January 2016, restoring its access to world markets. Iran’s increase of oil production to pre-sanction levels has boosted the global oil inventory and this had a dampening effect on oil prices.

“Even though U.S. and Chinese production cuts this year were mitigated by increased production from OPEC, what is important is: Supply is being cut because of big reduction in exploration budgets by oil majors.

“We estimate that capital expenditure by oil majors this year will be down by 30% compared to two years ago. There is less investment in new oilfields and that will eventually dampen supply. In summary, we expect a shallow, rising price trend for oil in 2017 to 2018.”

“Chinese oil demand has slowed down compared to 3 to 4 years ago, but it is still a significant contributor to global oil demand. India’s economy is picking up and the rate of growth of oil demand is now keeping pace with China, accounting for half of the increase in world oil demand.

“Assuming global economic growth of 3%, we believe that world oil demand will increase to around 1.3 million barrels a day in 2016 and 1.4 million in 2017. We think that the big increases in output in Iran and Saudi Arabia are temporary. The prospect of the OPEC agreement to cut production may also materialise.

Mr. Rajiv Biswas is a Senior Director and Asia Pacific Chief Economist within the IHS Economics & Country Risk group.

Mr. Biswas was previously director for Southeast Asia for The Economist Group, executive director for UBS Asia-Pacific country risk, director and senior economist for international public policy and group economic research covering the Asia-Pacific region. He was also senior economist for the Commonwealth Secretariat, head of the economics unit for QIC, a large investment fund manager, and international economist for the Royal Bank of Scotland.

Mr. Biswas also worked for one year in Japan on trade and investment issues for the Japanese government. He is a graduate of the London School of Economics, UK, with a Bachelor of Science (Honors) in Economics. He received his Master of Science and a Diploma of the Imperial College from the Imperial College at London University, UK.

Mr. Biswas has written on a wide range of economic, trade and investment-related topics, with over 100 published articles.
Oil & gas market outlook
Rajiv Biswas

“All these things point to a gradual increase in oil price. It is slightly more positive from the point of view of the oil producer and the oil & gas industry that things are gradually improving.”

Impact on Asean countries

“When oil prices started to fall during the middle of 2014, the ringgit fell sharply against the USD because people perceived that if oil prices fell, Malaysia will be badly hit.

“Malaysia is actually a net importer of oil and a net exporter of gas. It has substantial net export positions on gas right up to 2020. When we talk about oil & gas exports from Malaysia, we are really talking about the very large exports of LNG coming out of Malaysia.

“Fiscally, Malaysia was hurt by the reduction of oil revenues but fortunately, it implemented a GST in April 2015 after years of debate. The decision was made before the collapse of oil prices and that reduced the country’s fiscal reliance on oil.

“The second thing Malaysia did right was to get rid of fuel subsidies in late 2014 when oil prices fell rapidly. That saved the government US$6 billion a year.

“Those 2 policies softened the fiscal blow from falling oil revenues and it now has a better fiscal structure. If oil prices go up, the Malaysia government benefits from higher oil revenues without the fiscal burden of fuel subsidies.

“The perception that the ringgit will fall when oil prices fall is an exaggerated fear. About 80% of Malaysia’s exports are manufactured goods which are unrelated to the petrochemical sector. This other part of its economy is relatively healthy: Its annual industrial production growth is about 4% to 6%.”

Singapore

“The cut in capital expenditure by oil majors had an effect on the marine and offshore engineering companies in Singapore. A significant portion of that industry is associated with the construction of oilrigs and vessels that support the oil & gas industry. There were some very big contracts for the construction of oilrigs that have been put into uncertainty.

“We are projecting oil prices to recover above US$75 per barrel by 2020 and that will significantly improve the balance sheets of major oil companies.”

Malaysia

“When oil prices started to fall during the middle of 2014, the ringgit fell sharply against the USD because

Indonesia

“Like Malaysia, Indonesia is a big exporter of LNG. Its LNG revenues have declined due to the fall in oil prices. Its coal revenues have also fallen. Fiscally, it has been hurt by lower commodity prices.

“When oil prices fell in 2014, President Jokowi seized the opportunity to get rid of petroleum fuel subsidies and extended the subsidies to only diesel. That was a tough decision: Previous attempts to remove fuel subsidies had been thrown out due to much opposition.

“Indonesia’s fuel subsidy burden of US$20 billion a year is now down to US$5 billion. The proportion of fuel subsidy in the total government budget fell from 13% to 5%.

“The Jokowi government now spends more on infrastructure, and this is more beneficial for the country in the long run. If Indonesia is politically strong enough to keep those fuel subsidies off the books, then it is structurally much stronger now in terms of fiscal spending.

“The key to Indonesia’s economic progress lies in its ability to shift its economy from over reliance on coal and LNG exports and to increase its manufacturing exports.”

Myanmar

“Prior to the fall of oil prices, gas accounted for 40% of Myanmar’s exports. In the years prior to the oil price collapse, Myanmar entered agreements with China to export gas via pipelines into southern China. The gas pipelines significantly improved Myanmar’s fiscal revenue in 2014 and 2015 but that was somewhat affected by the fall in oil prices.

“Other sectors like tourism, infrastructure development, and manufacturing are doing much better now and its economy is growing rapidly.

“Myanmar is also receiving international aid as well as foreign direct investment. It is also licensing foreign companies to develop its oil & gas industry. For example, Woodside has made two significant oil discoveries in Myanmar. As oil prices recover, the underlying story of oil & gas exploration and development in Myanmar still appears favourable because it has one of the largest oil & gas reserves in Southeast Asia, both onshore and offshore.”
Circular economy — a new economic model where growth is enabled by the adoption of new business models and digital technologies, whilst reducing waste and optimizing resource use — is the new buzzword of business sustainability. About 250 years ago, the industrial revolution put the world on a “take, make, waste” path that depleted finite natural resources to create products that end up in landfills or in incinerators.

In the traditional linear economy, markets and industries behaved as though there was no limit to the availability of cheap natural resources and as though the environment had infinite capacity of absorbing the negative impact of industrial production.

The sustainable alternative is the circular model of “take, make, take, make…”. There are two levels of circular economy: At the macro level is the decoupling of GDP growth from depleting scarce resources and harm to the environment. At the micro level is how the management team of a business designs and delivers products and services that the customer wants in a way that lessens the harmful impact on the environment and reduces the amount of unnecessary resources used in the delivering the product.

After studying 120 detailed case studies on successful pioneers of circular economy businesses, Accenture Strategy found the following prevalent models:

1. Circular Supply-Chain
2. Recovery & Recycling
3. Product Life-Extension
4. Sharing Platform
5. Product as a Service

What were the successful companies doing differently?

CRAiLAR Technologies

CRAiLAR Technologies is an example of a circular supply-chain model. This model introduces fully renewable, recyclable or biodegradable materials that can be used in consecutive life cycles to reduce costs and to increase predictability and control.

One the biggest inputs for the footwear and apparel industry is cotton. Cotton is an excellent input...
from the manufacturer’s perspective of price and quality of garments. Unfortunately, cotton crops require large amounts of water for irrigation. The places where cotton is grown — Uzbekistan, Kazakhstan, India, China, Australia and various parts of the US — are also often places where water is scarce in supply.

One kilogram of finished cotton textile takes between 4,000 and 29,000 litres of water to produce. To put this disproportionate amount of water in perspective, consider this: The average human typically ingests between 80,000 and 100,000 litres of water in his entire lifetime.

CRAiLAR Technologies has been experimenting with how they can use flax and hempseed for a replacement product that matches cotton in quality, softness, durability and price parity. The difference is: Only 15 to 20 litres of water are used to produce one kilogram of finished textile.

**General Motors**

General Motors is an example of the recovery & recycling model where waste in production and consumption systems is revived for other uses.

The automobile manufacturer has about 125 factories around the world. About 5 years ago, General Motors embarked on a programme to shift to zero-waste in its manufacturing environment. The programme controls waste management from when resources enter the factory to when cars exit the factory.

For example, when it had metal cuttings, it sought ways to recycle and reuse metal scraps instead of relying on virgin materials. Scraps that could not be utilized internally were sold to recyclers or to factories that could use them for industrial processes.

The company thought that this zero-waste project investment would have a negative net present value (NPV), but found to its pleasant surprise, that it had been able to recover 90% of any kind of waste.

The company uses a single resource data management system that constantly optimizes the waste stream with respect to the value of commodities. Data analytics is used to track all waste materials generated, reused and recycled while identifying opportunities to improve.

**Caterpillar**

Consumers discard products that they no longer value — because the products are broken, out of fashion or no longer needed. But many of these products still hold considerable value, and the product life-extension model seeks to recapture product value through repairs, upgrades, remanufacturing or remarketing.

Caterpillar is a global manufacturer of industrial equipment with a remanufacturing division that recovers, refurbishes, markets and sells used equipment. The price point of its refurbished equipment is at about 80% of what a customer pays for new equipment.

Refurbished equipment meets the same quality criteria as new equipment and comes with the same number of years of warranty. Its remanufacturing division now employs 4,000 people and generates business revenue of a billion dollars a year. The most interesting part about this business is that it is the most profitable division for Caterpillar.

Using a piece of refurbished equipment is 90% more energy efficient and 80% more resource...
Peter Lacy is a trusted strategic advisor to top executives and leadership teams around the world on strategy and sustainability. He has worked for over 15 years with CEOs and top management of leading global companies, the United Nations, the European Union and national governments helping them solve complex strategy and sustainability problems.

He has advised companies such as M&S, Diageo, Coca-Cola, Unilever, Vodafone, GSK, Xstrata, Exxon-Mobil, Lloyds TSB, BP, GE, Baosteel, Dow, and Motorola and the UN, EU, UK, Singapore and Chinese governments. He has also advised cities including the mayors of London, Amsterdam, and Shanghai.

Peter’s career has spanned strategy consulting and sustainability with Accenture, McKinsey & Co, Andersen Consulting and the Academy of Business in Society, where he was founding chief executive of a partnership for Unilever, Shell, J&J, IBM and Microsoft with INSEAD, London Business School, IMD and the EU on research and executive education in Brussels. He has previously served on advisory boards for the UK Minister for Trade & Industry and the European Commission.

Airbnb

In developed economies, up to 80% of the things stored in a typical home are used only once a month. The **sharing platform model** forges new relationships and business opportunities for consumers, companies and micro-entrepreneurs who rent, share, swap or lend their idle goods.

AirBnB is a perfect example of using under utilized global spare capacity – spare bedrooms and spare houses around the world to provide more accommodation choices to travellers at more varied price points. It reduces the aggregate hotel accommodation demand in certain parts of the world by using the assets for excess accommodation capacity in the global economy.

Michelin

In the **product as a service model**, consumers lease or pay for products by use. When manufacturers and retailers bear the cost of ownership, many of them will adjust their focus to the longevity, reliability and reusability of a product.

Michelin, the global tyre manufacturer, now sells tyres as a service and not as a product to its biggest fleet customers. For example, Singapore Airlines pays for tyres based on number of kilometres used, rather than buying the actual tyre. Michelin is able to provide this pay-per-use service as it has embedded sensor technology inside each tyre and wheel to track usage distance.

On top of that, data analytics also enable the company to predict potential maintenance issues or when the tyre is likely to need to be replaced. The sensors also capture a comprehensive range of data such as the temperature that the tyre is used at and enables the company to recommend the best tyre type for a certain aircraft. It can even track pilot performance to provide a feedback loop for training.

The evolution of technology has changed the way companies approach R&D and customer solutions. In the past, a manufacturer had minimal responsibility for the tyre it sold. To increase sales, a manufacturer preferred the customer to make repeat purchases within two years and that became a disincentive to for the manufacturer in ensuring longevity in tyre design.

Efficient because of savings in capital equipment. The product provides a customer proposition that is as good as new equipment, if not better in certain circumstances. Using refurbishment equipment also lowers harmful use of scarce resources.
With a service contract where the manufacturer is responsible for retreading, performance issues and tyre replacement, the company becomes motivated to design for longevity instead of obsolescence.

When the tyre can no longer be remanufactured, it is sold to a footwear company for use as soles.

**Enabling technologies**

The second prevalent concept that emerged from the study was the impact of technological breakthrough, mainly digital technology and in some cases engineering technology — how companies used next generation technology such as 3D printing, mobile, data analytics, cloud computing and the Internet of things to drive new business models.

Accenture Strategy looked at 110 different breakthrough technologies in 120 successful circular economy companies. Seven out of ten of those companies had new technologies such as Michelin’s use of digital sensors to transform their businesses.

In some cases, companies required new capabilities in order to innovate in the circular economy. This included understanding of the following:

- **Product life cycle**
  Understanding the product’s life cycle enables a company to change its product development cycle

- **Return value chain**
  Thinking about how to enable a company to create reverse logistics such as taking a product back at the end of its life cycle

- **Flow of materials**
  Thinking about how to control the flow of materials in a company’s value chain

- **Sourcing and collaborating**
  Instead of using new materials, using old materials or finding ways to collect old materials

- **Innovation in product development**
  Thinking about designing products and services differently

**Sharing risks with financial institutions**

In the product as a service model, Michelin moved away from selling tyres with no further responsibilities for them to an annuity model. As the tyre owner for the entire product life cycle, Michelin had new liabilities and now bore the risk associated with collecting the annuity from customers, which are in turn subject to other business risks.

Risk calibration is required and companies are looking for ways to work with parties that can offset some of that risk. This is where banks play a part, such as in extending infrastructure financing to these new business models.

European banks such as ING, Intesa Sanpaolo, Rabobank and DLL are seeing the opportunities of the circular economy. They are shifting from corporate social responsibility initiatives to realizing the business potential of the circular economy internally, with customers and across supply chains.

Still, more work remains to be done. Companies embracing circular practices are breaking new ground. To further encourage this progress, *The Circulars*, an initiative of the World Economic Forum and the Forum of Young Global Leaders, run in collaboration with Accenture Strategy, seeks to encourage the growth of the circular economy.

Now in its third year, the awards program recognizes individuals and organizations from commerce and civil society who make notable contribution to creating the circular advantage. For further information, see [www.thecirculars.org](http://www.thecirculars.org).

At the third public talk held in conjunction with the Save and Invest campaign, senior CFA members explained the rationale behind their investment decisions for a simulated portfolio for retiree Wang Moo Kee, 61, a former marketing manager at a multinational company.

Two of the panellists, Simon Ng, CFA, and Phoon Chiong Tuck, CFA had been providing guidance to Mr Wang in his investment decisions for a one-year investment simulation exercise. The simulated portfolio went live on 18 January with an investment sum of S$400,000.

**Sector Allocation**

**Daryl Liew:** The original targeted allocation for Mr Wang’s portfolio was 60% in bonds and 40% in equity-related investments. However, his actual portfolio currently comprises of almost 50% in bonds and 50% in equities, REITs and ETFs.

The reason is for this is Mr Wang wanted a 5% return on investment, which we felt was rather high given the current low-interest rate environment. To generate a 5% yield, we needed to allocate more into equities and investments with higher risk.

**Simon Ng:** Given that Mr Wang saved 30% of his salary and the bulk of his bonuses, we felt that he needed a more conservative portfolio. That is why the panellists initially allocated 50% of his portfolio to bonds. 30% was allocated to Singapore equities. 10% was allocated to investments with global exposure, including investments outside Asia and investments in alternative assets. The remaining 10% was allocated to REITs.

Mr Wang’s portfolio holdings table shows that 50% to 60% is allocated to investments that offer yield and capital protection. This is aligned with his conservative investor profile.
We wanted to create a portfolio that met the needs of the investor, satisfied his risk profile and at the same time was sufficiently diversified.

We allocated 10% of Mr Wang’s portfolio to global markets. For this, we invested in ETFs listed on the Singapore Exchange. This is a prudent way to gain global exposure when the depositary receipts of foreign stocks are not listed here.

If you want to gain exposure to global markets but do not have in-depth understanding of all the stocks listed outside Singapore, investing in ETFs is the prudent approach.

The bonds in Mr Wang’s portfolio are mostly issued by banks and real estate companies. This affects our sector allocation for his entire portfolio, including sector allocation for equities, ETFs and REITs. From a broad sector allocation viewpoint, we felt that we needed to diversify from banks and real estate when stock-picking in Singapore.

**Asset Selection**

When we think about portfolio construction, we first look at the universe of instruments available for investment. From that, we try to identify the attractive sectors. We have to be mindful that the portfolio has to take Mr Wang through the next 5 to 10 years. From each sector, we try to identify the attractive stocks in each sector through research analysis. For example, in the banking sector, why do we pick one or two stocks like DBS and OCBC over the others?

When building a portfolio, our fund selection process includes looking at the fund’s investment process, the fund manager behind the fund, its performance track record and the investment philosophy that the fund manager is adopting.

We actively selected stocks through research and analysis instead of replicating the components of a benchmark index.

“Currency markets can be incredibly volatile. Be very careful when investing in foreign currency instruments.”

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Mr Wang Moo Kee’s portfolio holdings as at 30 June 2016
Mr Ng became CEO of CCB International (Singapore), the capital markets services arm of China Construction Bank in Singapore, in 2016.

Prior positions he has held include Head of Multi-Asset Investment at Shanda Group and Pan Asia Deputy CIO of AXA Rosenberg Investment Management.

Simon Ng, CFA
CEO
CCB International (Singapore)

We have done a modest amount of rebalancing since January – we divested OCBC and bought DBS. Prior to rebalancing, we felt there was over exposure to Singapore equities. So, we divested ComfortDelgro and invested in gold.

Equities-related investments

Simon Ng: In our allocation to Singapore equities, we chose industry bellwethers of the Singapore economy. We avoided banks and real estate as the portfolio already has already extensive exposure to these two sectors in bonds and REITs. We targeted to allocate 10% of Mr Wang’s portfolio to two stocks that would generate stable income. We chose two (instead of one, or 3 or more) stocks as a balancing act between diversification and efficiency of trading. Holding too many stocks would incur trading costs that are excessive as a percentage of portfolio value and eat into his total return.

For his REITs allocation, we selected Ascendas Real Estate Investment and CapitaMall Trust because of the robustness of industrial REITs.

For his ETF allocation, we split the 10% exposure target between US, China and the Asia-Pacific region. This represents our appetite for exposure to the emerging markets. About 3% was invested in SPDR gold shares for exposure to alternative assets in precious metals.

In the aftermath of Brexit, we completely divested our European equities in recognition of the unstable environment in Europe. We felt that US, China, all-countries index and gold showed promise for growth.

Gold prices rallied after Brexit. Precious metals remained the safe haven in times of volatility and uncertainty. We felt that the US economy is one of the strongest in the world, and remains one of our picks for diversification. As the US market valuation is rich, our investments in the US ETF serves more as a hedge and diversification for growth outside Singapore.

Although emerging markets remain volatile, our appetite for these markets has gradually increased as we felt there opportunity for bottom fishing in this space. We felt there is growth in this space to warrant this form of exposure.

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Puah Soon Lim, CFA
Associate Director
Finexis Advisory

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Bonds

Daryl Liew: Bonds had outperformed strongly this year. One of the reasons for that was that interest rates in Singapore had continued to go down. At the beginning of the year, 10-year Singapore bonds were yielding close to 2.6%. Now it is about 1.7%. When interest rates go down, bond prices go up.

Mr Wang’s bond benchmark (iBoxx ABF Singapore) was up 4% since the beginning of this year. On the other hand, his bond portfolio was only up 0.37% as at 30 June 2016.

The impact of currency translation made it tough to keep up with our bond benchmark. We had invested in the iShares Asia Credit Bond ETF. This ETF is denominated in SGD but comprises of USD investments.

From the performance of USD ETFs, you can see that USD investments had lost 6% due to the appreciation of the SGD against the USD. The USD was strong last year and lost ground this year. That’s why we have a table to show currency exposure and we show returns in SGD.

Phoon Chiong Tuck: Bonds are supposed to be more stable compared to equities. There are about 10 bonds traded on the Singapore Exchange. When we formed Mr Wang’s portfolio, interest rates were relatively low, so we chose the short-term bonds.

Because interest rates were relatively low, we wanted a bond that didn’t fluctuate too much should interest rates go up. We singled out a number of bonds with relatively high yield and avoided those that we thought were less credit worthy.

The idea behind investing in corporate bonds is diversification among various bonds. A good way of diversification using bonds is to buy a corporate bond-linked index. So, we bought the JP Morgan Asian Bond Index ETF. There is a currency component to this instrument — the JP Morgan Asian Bond Index is based in USD. We invested about 15% of Mr Wang’s portfolio in this instrument, so the USD exposure did not affect the portfolio value too much.
Is the investment profession a source of systemic risk? Do the investment flows that we are intermediaries of contribute to financial fragility? Might asset management firms be too big to fail? Are we part of the problem or part of the solution? What has been the regulatory response and what should it be?

These are the concerns being voiced by the regulators. The US Office of Financial Research (OFR) penned a report identifying the great ocean of capital flows as a source of systemic risk. The Financial Stability Board (FSB), the Basel-based body which guides the global approach to financial regulation, conducted consultations with similar questions in mind. In a major address titled The Age of Asset Management, a senior Bank of England official identified investment flows as the “next frontier for macro-prudential policy.” All three of the above query the degree to which the investment firms in which we work might constitute systemically important financial institutions.

Global Financialization
Our global financial system is big, complex, and accident prone: China’s foreign exchange reserves amount to US$3.2 trillion; the Fed’s balance sheet has reached US$4 trillion; daily FX turnover amounts to US$5 trillion; US Federal debt outstanding is US$19 trillion; global professionally managed assets are worth US$80 trillion. In spite of the global financial crisis, the aggregate notional value of global derivatives outstanding is as high as US$600 trillion.

The interesting thing about these big numbers is that even a small percentage of a big number is still a big number. Thus, a 10% change in China’s forex holdings generates US$320 billion of sales and another US$320 billion of purchases. A 5% rise in US interest rates will add US$950 billion to the US budget deficit annually. A 3% shift in global asset preferences triggers more than US$4 trillion in securities transactions. And a mere 1% of derivative contracts gone wrong could lead to losses of US$6 trillion.

The numbers are not only big in absolute terms. They are big relative to the size of the economies they are meant to support. The business

At CFA Japan’s maiden Livestream Event for Asia-Pacific (LEAP) on 15 September 2016, Robert Jenkins, FSIP, Chair of the Planning Committee on the CFA Institute Board of Governors, spoke about the investment professional’s role in addressing systemic risk. This article contains an excerpt of his speech.

Masataka Aoto, CFA (President of CFA Japan) and Larry Cao, CFA (Director, Content, Asia Pacific CFA Institute) were the event moderators.
Systemic Risk
Robert Jenkins, FSIP

of finance has soared as a percentage of total economic activity.

In 1980, a boom time period, the financial sector in the OECD countries (including Japan) represented less than 10% of gross domestic product. By 2007, it had reached 30%. During this time, transaction volumes exploded. Within the US economy alone, the total turnover of equity trading, government and corporate debt, FX, and exchange traded derivatives was 2.6 times GDP in 1970, 6.4 times in 1980, and 52 times by the year 2000.

This was before the advent of high-frequency trading. Today, the value of currencies in FX trading is 100 times the world trade of goods and services to which it relates.

Beyond this “financialization” of Western economies and Japan, there exists an unprecedented degree of complexity and interconnectivity. Thus, subprime problems in Pittsburgh popped up as write-downs in Dusseldorf. The prospect of “Grexit” once threatened the Eurozone and beyond. Taper tantrums at the Fed triggered financial tremors in Turkey.

Finally, we must add leverage to the mix of fragility. At the center of our financial universe is the banking system - creator of credit; counterparty to trading; generator, manager, and transmitter of both risk and liquidity. When the banking system freezes, our financial system fractures.

The banking system freezes when losses threaten to overwhelm banks’ loss-taking ability. And their loss-taking ability is determined by the degree to which their risk taking in banking is funded with equity versus debt. In other words, financial stability hinges on the amount of capital in bank balance sheets. In the recent crisis, most of the world’s largest, complex, and interconnected banks were excessively leveraged. Loss-absorbing capital was wafer thin. Not surprisingly, market confidence eroded very quickly.

What is surprising is that policy makers have failed to embrace the lessons of the debacle. Leverage remains excessive. New global standards have been agreed upon in Basel that tighten definitions of banking risk and place an overall cap on leverage. Bankers say that the rules are too harsh. The Basel rules provide for two ways of maintaining leverage. The first assigns a minimum amount of capital to different categories of risky assets (risk-weighted asset). The second is to place a cap at some multiple of loss absorbing equity (leverage ratio).

Collateralised debt obligations squared nearly brought down the financial system. Those securities have not been outlawed. They are still with us today. Basel requires that banks hold capital against the notional value of CDOs squared. You would expect requirement for loss absorbing equity to bear some relationship to be amount of loss that the bank might have to absorb.

But the new tough Basel III rules require less than 1.4% of the notional value of loss absorbing equity in support of CDOs squared (debt security backed by debt security backed by a pool of loans made to US residential subprime homeowners that might be rated AA by US rating agencies). Neither banker, regulator nor rating agency managed to understand such a security.

Fortunately, Basel III introduces a backstop: A bank’s total equity will be capped. Current rules permit the balance sheets of banks to balloon to 33 times their loss absorbing equity. At that level, bank asset values need fall only 3% to wipe out 100% of bank capital. A mere 1% drop leaves the institutions leveraged 50 times; a 2% fall, 100 times.

It is true that at the next crisis, bank creditors are supposed to take the hit. Bank bondholders are supposed to take the losses after the shareholders. At the first sign of stress, how long do you suppose bank creditors will wait around to find out? How long will you wait? Consider that some banks’ balance sheets are equal in size to their home nations’ GDP and the aggregate of bank assets in any country can be two to five times GDP, you will grasp central bankers’ admission that we have yet to eliminate the problem of too big to fail and too big to bail.

How can this be? Bank lobbying explains it and it carries lessons for the investment profession. Back in 2009, banking lobbyists’ first response to the financial crisis was to deny that any financial reform was necessary. Then, they acknowledged that reforms were necessary, but only if such rules could be applied globally. They argued that if such rules could be achieved, they would be set to the lowest common denominator of international consensus.

Myth 1: Raising capital requirements retard economic recovery

Throughout, bank lobbyists have worked to persuade the public, politicians and pundits that society has to choose between safer banks and economic growth, between safer banks and shareholder returns, and between a safer financial system and one that is competitive.

They argue: “Raise our capital requirements and we would have to cut back on lending and that would retard the economic recovery.”

Does the math work out this way? A bank has a trillion dollar balance sheet funded by $50 billion of loss absorbing equity and $950 billion of debt. Now consider doubling the bank’s equity to $100 billion and retiring $50 billion in debt.

Would this change the balance sheet? No. Would the bank have to cut back on credit? No.
Robert W. Jenkins, FSIP, is chair of the planning committee on the CFA Institute Board of Governors. Previously, he served as a senior executive at CitiGroup, where he ran the bank’s trading and sales activities in the UAE, Bahrain, Switzerland, and Japan. Mr. Jenkins followed his 16 years on the sell side with 18 on the buy side. He headed the asset management business of Credit Suisse in Japan, was chief operating officer of Credit Suisse Asset Management’s UK and central European business, and then served for 12 years as CEO and chair of F&C Asset Management. Mr. Jenkins also worked at the Bank of England and was CEO and partner of Combinatorics Capital, a New York–based hedge fund.

He chaired the Investment Management Association of the UK, the trade body for the investment industry. Mr. Jenkins co-chaired the chancellor’s task force on the “Future of the UK Investment Industry” and served on the UK’s Takeover Panel. He served as a founding member of the Bank of England’s Financial Policy Committee. Mr. Jenkins is currently adjunct professor of finance at the London Business School (LBS); chair of the AQR Asset Management Institute at LBS; member designate of the supervisory board of NN Group; and a senior fellow at Better Markets. He is a regular contributor to the financial press. Mr. Jenkins attended university in the United States, France, and Italy.

Myth 2: Raising capital requirements crimp banks’ shareholder value

The bankers say: If you raise our capital requirement, you would reduce our return on equity. That will reduce our shareholder return, and that will reduce the flow of capital to the banking sector which will force us to cut back on lending.

Return on equity may be an appropriate measure of long term bank profitability. But it is a short term target that is flawed and dangerous.

Did the big banks that focused on double digit return on equity achieve it over time? No.

Did the annual emphasis on ROE produce attractive and sustainable shareholder value? No.

Short term focus on ROE doesn’t improve shareholder value because it doesn’t adjust the risk. The returns came earlier and the risks came later, in 2008 and 2009. The penalty on the returns that were generated before 2008 are still impacting us today. The share price of Barclays Bank today is the same as in 1996 when Bob Diamond joined the bank. Deutsche Bank’s share price is trading where it used to trade in the 1970s. Both banks emphasized aggressively double digit return on equity.

The most successful investors are not interested in short term ROE. They are interested in achieving attractive risk adjusted returns. The higher the perceived risk, the higher the return required. The lower the perceived risk, the lower the return expected. Capital will flow in either case, but its price will be different. Banks with very low equity, and lots of leverage and complexity are more risky than those with less leverage and more equity. Investors in bank debt and equity charge accordingly. That charge is the bank’s cost of capital.

Given the markets tends to reward what is more predictable with higher earnings multiples, even lower nominal earnings need not reduce lower market capitalization, dividends or shareholder returns. So, it follows that safer banks can be competitive and a competitive financial sector can boast banks that are adequately safe.

In short, higher capital requirements are compatible with economic growth, shareholder value and financial competitiveness. They are just not compatible with non risk-adjusted banker pay. During the darkest days of the financial crisis, these myths were dominant. Politicians were simply unwilling to take the risk that the towering titans of finance might just get it wrong two times in
a row. In the U.S., such legislation was rewarded with bank funded campaign contribution.

Now that we are back from the brink, regulators are beginning to revisit the issue of capital adequacy. They do recognize that Basel III is a failure. How else would you explain the increasing emphasis on bank stress testing? Why would you need stress testing if there is enough capital in the event of stress?

Regulators are beginning to look into raising capital requirements above and beyond the Basel III minimums. But the fact of the matter is that leverage is excessive and it looks like it is going to remain so. The British authorities are trying to lower leverage to 20 to 25 times. U.S. regulators are pushing towards the same sorts of limits.

By comparison, the average hedge fund operates at less than 3 times leverage. So, the new system is targeting leverage in banks at 7 to 10 times the leverage in hedge funds.

Regulators and policy makers do admit reluctantly that despite 8 years of debate, they still have not addressed too big to fail. Barring an unlikely breakup of banks, many of them remain too big to fail, too big to manage.

Role of the Investment Professional

What does this have to do with the investment professional?

First, we have a big stake banking reform because the ultimate object of banking reform is financial stability. Even though no segment of the financial sector has a greater stake in stability than the investment management industry, we have kept our heads down and our mouths shut. In the struggle with banking lobbyists, politicians and regulators needed our help. We might have made a difference.

Second, although we don’t receive the same amount of remuneration, we are tarred with the same brush as with the investment banks. Our reluctance to comment on the recklessness of investment banking has meant that neither the public nor politicians adequately distinguishes between investment banking and investment management. We missed a golden opportunity not only to secure a seat at the reform table but also to better differentiate ourselves in the process. To the man in the street, we are all investment bankers now.

Third, we are next on the list. Excessive leverage in the banking system leaves it vulnerable to collapse. Western governments cannot afford a replay of the crisis. Treasuries know this. The public would not tolerate a repeat performance of the bail out. Politicians fear this. So, the failure to resolve the issue of too big to fail risks spawning a regulatory campaign to spot and control any and all threats that might lead to bank failures. So regulators look for threats. When one starts looking, one soon discovers that the world of capital flows is big, complex, and could well overwhelm the meager capital buffers of the banking system.

Fourth, we are experiencing financial repression such as negative interest rate policy. Financial repression, particularly in the west, is largely the result of the failure of financial reform. It distorts capital flow and makes it even more difficult for the industry to meet client expectations. Yield rates remain low because our financial system remains fragile.

The policies translate into ever greater challenges for the savers that we seek to serve, the pension funds that we manage and the insurance policies that we promise. Some may enjoy the ride of inflation but most of our customers are being forced to take more risk in order to get the same or less return. Veterans of the investment industry worry how this is going to end.

What’s to be done

In many respects, our industry’s response followed the banking lobbyists’ script. Our first step was to say: We didn’t cause the problem; why should we be concerned? Next we said: Banking reform is important, but what does it have to do with us? Our next stage was: A regulatory review is important, but be careful that you don’t impair our ability to compete, attract talent and serve clients. If you regulate us more severely, we will have to increase our charges and savers will suffer.

Instead, we need to show we are part of the solution and not part of the problem. We do not deploy excessive leverage. We do not act as principals. We are not subsidized by the taxpayer. We are not too big to fail, bail, or jail. When our clients supply credit to the market, it is most often 100% equity backed.

We can both make our case and a major contribution by highlighting the job left undone. But we have to speak up. The Office of Financial Research has raised the issue. The Bank of England has raised the question. The Financial Standards Board has passed us the podium. We need to grab it and offer a series of sound and hard-hitting lessons on leverage.

Money management firms, both large and small alike, must send the same message. For unless authorities are to deny investors access to their money, those huge flows that we are intermediaries of will most assuredly move in unexpected and at times exaggerated ways. In the case of money managers, the clients will take the losses that result. But the authorities must ensure that the equity requirements protecting the banking system are sufficient so that the banks can take their losses without taking down the system and without recourse to the taxpayer.
Career Development

Career in Asset Management - Speed Dating (2 Jul)
Jointly organized by CFA Singapore’s Asset Management Committee and the University of Chicago Booth School of Business

Career and Financial Goals Planning (1 Sep)
Talk by Sam Phoen, CFA, author of High Net Worth Investing

Mentorship Programme - Celebrating Our Mentorship Journey (13 Sep)
ADVOCACY

Networking Drinks @ IndoChine Suntec City Bar (25 Jul)
Society President Jan Richards, CFA with lucky draw winner.

F1 Singapore Grand Prix Networking Night (18 Sep)
Beer Market @ Clarke Quay

InvestFair 2016 (31 Jul)
Presentation by Simon Ng, CFA; Phoon Chiong Tuck, CFA; Dary Liew, CFA

University Investment Research Challenge (24 Sep)
Kick-off event

Career Panel @ NTU (16 Sep)

NETWORKING