Platinum Capital® Limited

Quarterly Investment Manager's Report

30 September 2017

ABN 51 063 975 431

Portfolio Update

by Kerr Neilson, Portfolio Manager

Performance

(compound pa, to 30 September 2017)

	QUARTER	1YR	3YRS	5YRS	SINCE INCEPTION
Platinum Capital Limited	7.1%	21.2%	10.8%	17.5%	12.6%
MSCI AC World Index	2.8%	15.7%	11.4%	16.6%	6.7%

After fees and expenses. Portfolio inception date: 29 June 1994.
Refer to note 1, back cover.
Source: Platinum Investment Management Limited, RIMES Technologies.
Historical performance is not a reliable indicator of future performance.

Net Tangible Assets

The following net tangible asset backing per share (NTA) figures of Platinum Capital Limited (PMC) are, respectively, before and after provision for tax on both realised and unrealised income and gains.

	PRE-TAX NTA	POST-TAX NTA
30 June 2017	$1.6337	$1.5679
31 July 2017*	$1.5901	$1.5199
31 August 2017*	$1.6361	$1.5523
30 September 2017	$1.6852	$1.5884

* Ex-dividend. Adjusted for the 30 June 2017 final dividend of 6 cents per share, declared on 17 August 2017 and paid on 11 September 2017.
Source: Platinum Investment Management Limited.

MSCI Regional Index Performance to 30.9.2017 (AUD)

REGION	QUARTER	1 YEAR
Developed Markets	**2%**	**15%**
Emerging Markets	**5%**	**19%**
United States	**2%**	**15%**
Europe	**4%**	**19%**
Germany	5%	23%
France	6%	27%
United Kingdom	3%	12%
Japan	**2%**	**11%**
Asia ex Japan	**4%**	**20%**
China	12%	30%
Hong Kong	3%	13%
India	1%	11%
Korea	0%	22%
Australia	1%	10%

Source: RIMES Technologies.

Glancing over our quarterly commentary, it feels as though there has been very little change in themes thus far in 2017. To recap, evidence of persistent and **widespread economic expansion** is undiminished. **Raw material prices** have continued to rise and, in the case of rare metals like cobalt, spectacularly.

While both mired in **important, yet protracted, legislative processes**, there is perhaps a brightening prospect in the US regarding the **tax bill** while the **Brexit** negotiations are revealing the horrors of an ill-prepared plaintiff.

In France, Macron's popularity is declining, while in Germany voters are voicing their fear of unrestricted migration through a strong showing of the right, which makes Chancellor Merkel's position more awkward as she engages with a coalition of disparate interests.

Following on from tighter lending measures, Chinese regulators have added **restrictions on the sale of second-hand property** in several cities as a further attempt to hold back rising property prices. Other measures have produced apparent stabilisation in the upward march in property prices, but strong income growth, continuing migration to the cities and high household savings suggest that these are merely palliatives.

By contrast, **China's 'supply side reform' initiatives** to close obsolete polluting capacity in industries ranging from coal to

MSCI All Country World Sector Index Performance to 30.9.2017 (AUD)

SECTOR	QUARTER	1 YEAR
Energy	7%	5%
Materials	7%	21%
Information Technology	6%	27%
Financials	3%	28%
Industrials	3%	18%
Telecommunication Services	1%	1%
Consumer Discretionary	1%	14%
Utilities	1%	7%
Health Care	0%	9%
Consumer Staples	-2%	2%

Source: RIMES Technologies.

steel, aluminium, basic chemicals and now power generation, are proving highly effective. As we emphasised in last quarter's report, the implication of these changes are far-reaching. Not only is pollution being mitigated, but the subsequent rise in the prices of these commodities is also placing these industries on a far stronger footing as revealed in significant profit surges. Some are choosing to pay back debt to the banks; others are building their cash reserves while maintaining the full use of these long-established credit lines from their banks. The key point here is that this is **forcing investors to reconsider their bear case** on China.

Among new developments from earlier in the year were the improbable exchanges between North Korea and the White House. Though obviously highly significant, investors have seemingly taken the view that a negotiated outcome is the most probable, as evidenced by the strength of the Korean won, which is close to its peak against the US dollar, and the Korean stock market, being only 3% short of its all-time high.

Another significant change has been a **strong recovery of the oil price** as pronouncements from shale producers suggested that increases in output at US$50 a barrel will be more constrained than earlier believed. Strong global demand has also tightened the market.

Flows have matched these changing perceptions, with the US market being a source of funds as investors continued to move more into Europe and the Emerging Markets. Once again, Emerging Markets led the rise with an increase of 7.6% in local currency, or 5.5% in AUD terms. Japan and the US each achieved a little over 4% (in local currency) while Europe followed closely with a 3.6% gain.

We are delighted to witness a more normal distribution of performance across markets, as represented by the MSCI indices, with the action no longer being dominated by the US component. PMC's portfolio has clearly benefited from this as well as from the diminution of the 'duration-seeking' or cyclical aversion that characterised the period from 2011 to 2016. Most pleasing of all was that in each geographic area, the funds invested have achieved higher returns than the host market. Consequently, we have been able to add considerable value as a fund manager – ironically, just as the **discussion around passive management** seems to have reached a climax! For the quarter, PMC's portfolio achieved 7.1% and for the last 12 months 21.2%. This contrasts with the MSCI AC World Index (A$) achieving 2.8% and 15.7% over the same respective periods.

Shorting

Specific stock shorts are running at 4% and equity indices at close to 9%. The short positions remain primarily against the US market and there has not been much change this quarter.

Currency

As shown in the table below, changes in currency holdings have been minor.

CURRENCY	30 SEP 2017	30 JUN 2017
US dollar (USD)	29%	36%
Euro (EUR)	15%	16%
Hong Kong dollar (HKD)	14%	11%
Japanese yen (JPY)	9%	8%
Korean won (KRW)	8%	6%
Indian rupee (INR)	5%	5%
British pound (GBP)	5%	2%
Norwegian krone (NOK)	3%	7%
Chinese yuan (CNY)	4%	1%
Australian dollar (AUD)	2%	2%
Chinese yuan offshore (CNH)	0%	-2%

Refer to note 3, back cover.
Source: Platinum Investment Management Limited.

Portfolio Disposition

REGION	30 SEP 2017	30 JUN 2017
Asia	41%	37%
Europe	21%	19%
Japan	16%	16%
North America	14%	15%
Australia	2%	0%
Africa	1%	1%
Russia	1%	<1%
South America	0%	<1%
Cash	4%	11%
Shorts	-13%	-11%

Refer to note 2, back cover.
Source: Platinum Investment Management Limited.

Top 10 Holdings

STOCK	COUNTRY	INDUSTRY	WEIGHT
Samsung Electronics	Korea	IT	3.5%
Alphabet Inc	USA	IT	3.0%
Royal Dutch Shell PLC	UK	Energy	2.7%
Lixil Group Corporation	Japan	Industrials	2.5%
Inpex Corporation Ltd	Japan	Energy	2.5%
Sina Corp	China Ex PRC	IT	2.3%
Kering	France	Consumer Disc	2.2%
Tencent Holdings	China Ex PRC	IT	2.1%
Nexon	Japan	IT	2.0%
Sanofi SA	France	Health Care	2.0%

As at 30 September 2017. Refer to note 4, back cover.
Source: Platinum Investment Management Limited.

Changes to the Portfolio

As we hinted in our last quarterly report, we have become quite excited about the prospects for what we term the 'electric metals'. We have been accumulating our exposure to these companies for some time, which continued this quarter. This decision comes from the work we have done on the changes taking place in the automobile industry regarding **electric drives and autonomous vehicles**. This is obviously a convoluted quest that is weighing heavily on the valuations of traditional auto companies which, as a group, are confoundingly cheap, even with the apparent hurdles they face been taken into account. By contrast, manufacturers of automobile electronic components, battery suppliers and their source suppliers have experienced some spectacular gains and in which we have to some extent participated. However, our field trips suggest that **massive battery capacity is currently being built** in anticipation of a Chinese-led blitz on traditional internal combustion engines (ICEs).

At present, it is a guessing game as to the number of electric and hybrid vehicles that will be sold in, say, 2020. There are many imponderables, including range anxiety, the higher initial cost of electric vehicles (EVs), the scarcity of charging facilities and the probable loss of generous state subsidies.[1] What we do know is that all the large manufacturers will have EVs on offer by 2019 and need to sell a certain proportion, even if at low margins, in order to meet their ***fleet* emission quotas** in sophisticated markets.[2] (Daimler-Benz recently alluded to the cost of this in their investor day presentations, suggesting that they anticipate a reasonable, if smaller, contribution margin.)

From an investing standpoint, this raises a host of opportunities. From earlier work, we followed the battery component path and acquired positions. But from here, ironically, the most certain opportunity may lie in the simpler companies that provide the basic metals. Nickel, copper and cobalt are prospective. The problem with cobalt is its scarcity, with current mine production barely achieving 100,000 tons a year and 65% of which coming from the perilous Democratic Republic of the Congo!

We find **nickel the most interesting** from an investment perspective. There are still huge stocks, a consequence of the mining boom and subsequent oversupply. At the current price of under US$5 per pound, perhaps 25% of world output is cash flow negative, and there is the added uncertainty around supplies of nickel-rich iron ore from Indonesia and the Philippines. However, we think such concerns are missing the more pertinent point that, of the annual supply of new material, which runs at 2.2 million tons, **only about 950,000 tons are suitable for battery making**. Considering that each 60 kWh Chevy Bolt NMC battery may contain as much as 23 kg of nickel, it does not take too many vehicles to start to tighten the refined nickel market.

Substitution is always a risk. As we are seeing with cobalt, which has seen the price triple in two years to US$30 per pound, efforts at thrifting are already producing results. The new cathode blends are reducing the cobalt load in NMC batteries from one-third nickel, one-third manganese and one-third cobalt (1:1:1) to a ratio of 8:1:1. These are due to for release in 2020.

The tightening of the nickel market may take time to play out, because stocks of the metal are still large, though off their peak levels. We have invested around 6% of the portfolio in potential mining beneficiaries.

There is a further 7% of the portfolio in **hydrocarbon plays**, representing an increase from earlier in the year. To fund these positions we have tended to **reduce our bank exposure** as well as trimming some of our **high-flying internet and e-commerce holdings**.

Outlook

The great puzzle is the preference investors are showing globally towards bonds (nominal assets) over equities (real assets). This tea party is all the more bewildering when one considers that earnings growth from the middle of last year has been accelerating while bond yields have been strengthening (i.e. bond prices have been falling), and in the face of that, equity withdrawals have sped up, as have bond purchases. We know that the central banks are insensitive buyers – together, the European Central Bank (ECB), the Bank

1 These subsidies presently average around US$5,000–7,000 per battery-powered electric vehicle (BEV), with the outliers being China, at around US$10,000 per BEV, and Norway, at about US$20,000 per BEV. The high initial cost of EVs may be the greatest impediment with current calculations suggesting a through-life payback of, say, seven to nine years. For example, the cost of the electric drive train is similar to that of an ICE, but the battery adds anything from US$8,000 to US$15,000 per vehicle. However, battery technology is bounding ahead with lithium nickel cobalt aluminium oxide (NCA) cathodes storing as much as 250 Wh per kg, twice that by the cheaper and more stable lithium phosphate (LFP) cathodes. Interestingly, the **cost of the metal content** of, say, a lithium nickel manganese cobalt oxide (NMC) 811 battery is around 20% to 25% of the cost of the entire battery pack, leaving lots of scope to reduce the packaging and related costs. At present, the Nissan Leaf is estimated to be acquiring battery packs from LG Chemical at close to US$140 per kW. The general view is that once battery packs are available at US$100 per kW or lower, EV manufacturers will be able to match the cost of an ICE driven car.

2 In the US, for example, the Corporate Average Fuel Economy (CAFE) hurdle is currently 35.5 miles per gallon (MPG), which will rise to 54.5 MPG by 2025. On 28th September 2017, China's Ministry of Industry announced that by 2019 at least **1 in 10 cars sold in China** must be so-called new-energy vehicles (NEV).

of Japan (BoJ) and the Bank of England (BoE) are **buying US$175 billion of bonds per month**, and that baby-boomers change their risk preferences as they age. But what is so interesting about bonds? The hole caused by central bank purchases[3] is being assiduously filled by the issue of corporate debt. Such is their excitement that bond investors have driven the yield of subprime European paper to below that of sovereign US paper. To put some numbers to the foregoing, corporate debt in the US has risen uninterruptedly from US$1 trillion in 2011 to US$1.54 trillion in 2016. At the same time equity ownership in the US has fallen by some US$500 billion.

We have not discovered the secret to this phenomenon. If the world's finances are so perfect, as suggested by the current pricing of equities, why is there still such need for central banks to continue with quantitative easing? What we can observe is that as investment banks now play a minor role as market makers, the reach-for-yield is narrowing the rate differential between quality and trash dramatically, and bond managers appear to have reduced their portfolio hedging, such that when one wishes to reposition a portfolio, it is neither easy nor swift. All this points to **fewer stabilisers** in bond markets should there be that pause caused by the proverbial embarrassing question across the dinner table. In response to the popular question "where will the **next eruption** come from", we might proffer **liquidity, and bond liquidity in particular**, well ahead of the standard favourite, China.

To read this quarter's *Macro Overview* by Andrew Clifford, CIO,
and his latest article on portfolio construction, *Why Indices Lead Investors Astray*,
visit www.platinum.com.au/journal/.

3 Governments have commandeered their own bond markets: Of the US treasury market of US$20 trillion, the US Fed owns 12% and a further 20% is owned by foreign governments. In the world's second largest bond market, Japan, the BoJ owns 45% of the US$8 trillion on issue while the ECB and the BoE respectively own 20% and 30% of their government bonds in issue!

For further details of PMC's invested positions, including country and industry breakdowns as well as currency exposure, updated monthly, please visit www.platinum.com.au/our-funds/platinum-capital-limited/#MonthlyUpdates.

The Rise of Asia

by Kerr Neilson, CEO, Platinum Asset Management

This is an edited rendition of a presentation delivered by Kerr Neilson at the NAB Asia Development Congress in September 2017 in Shanghai.

Over these past 20 years, some Asian economies such as China and India have been growing physically by 6-7% a year. At that rate of growth, the nominal size of **an economy doubles every 10 years**, which makes these economies four times the size that they were in the days of the 1998 Asia financial crisis.

Asia has changed immeasurably over the last two decades. It is now less susceptible to shocks, far more self-sustaining, and has managed to side-step some developmental hurdles by leapfrogging with technology. The purpose of this paper is to try to convince you to see Asia from a new perspective. Without doing so, you may well miss one of the great paths of wealth creation over the coming 10 to 20 years.

To start with some context, China and India together have a population of 2.7 billion and a land mass of nearly 13 million square kilometres. This means that **these two countries alone** have a land mass slightly smaller than the European Union (EU) and the US combined, but a population three times larger. Importantly, when measuring economic output on purchasing power parity, their **combined GDP of US$33 trillion is 50% larger than either the US or the EU**!

When official data claims that China is the world's second largest economy and that its GDP is about 60% that of the US, some tend to struggle with these statistics because of the physical presence of these economies. For example, how can these figures be meaningful when one considers that China produces eight times more steel than the US and 50% more automobiles, consumes nearly half the world's copper supply and similarly in stainless steel, aluminium and cement, and originates nearly 120 million high-spending overseas travellers each year?

	CHINA & INDIA	EUROPEAN UNION	USA
Population (million)	2,748	508	324
Land area (million km^2)	12.9	4.4	9.5
GDP PPP 2017 (US$ trillion)	32.7	20.9	19.4

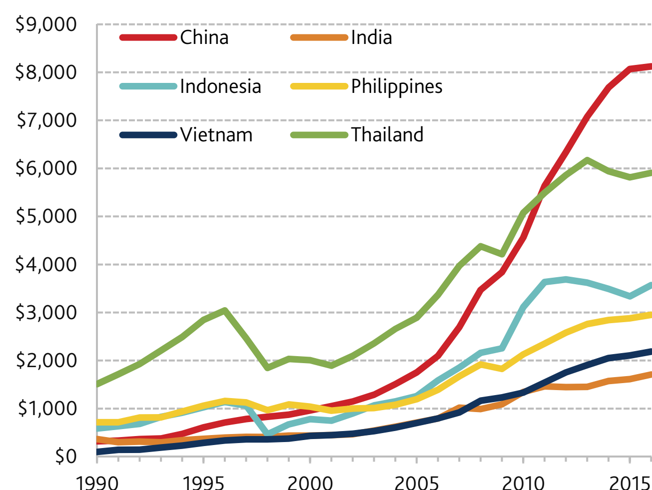
Source: UN, IMF

Income disparity is indeed a major issue for Asia. While household income in mega cities like Shanghai and Beijing can be US$50,000–100,000 a year, rural income is only a fraction of that. The relevance of this lies in **social harmony**, but as with other economies that have gone through the traumas of industrialisation, this has proven less of a challenge during that period of helter skelter growth than in its aftermath. Either way, Asia's economies have been growing at a remarkable pace, as shown in the per capita GDP chart below. From an investment point of view, thinking about the rate of growth of these countries alongside that of the West adds important perspective.

COUNTRY	POPULATION (MILLION)	LAND AREA (000 KM^2)	GDP 2016 (US$ BILLION)
China	1,379	9,388	$11,199
India	1,324	2,973	$2,264
Indonesia	261	1,812	$932
Thailand	69	511	$407
Philippines	103	298	$305
Vietnam	93	310	$203
Total	**3,229**	**15,292**	**$15,309**
World	7,442	129,733	$75,642
% of world	**43%**	**12%**	**20%**

Source: World Bank (World Development Indicators 2017)

GDP Per Capita 2016 (Current US$)



Source: World Bank (World Development Indicators 2017)

One common complaint we hear about Asia is the **difficulty of dealing with local regulatory and bureaucratic systems** when it comes to matters such as the registration of a new business or the enforcement of contracts. There is no denying that most parts of Asia still lag the developed countries in the "ease of doing business", but there are clear signs of improvement. One measure of this is the Global Competitive Index (2017-18) compiled by the World Economic Forum. This index measures and compares the competitiveness of 137 economies based on 12 factors ranging from social institutions to physical infrastructure, labour market efficiency and technological readiness. Switzerland and the US take out the top two spots, followed by Singapore, while Hong Kong ranked 6th, Taiwan 15th, China 27th, Thailand 32nd, Indonesia 36th, and India 40th, ahead of Portugal (42nd) and Italy (43rd). Australia ranked 21st. Is it not interesting that there are apparently 101 countries more difficult to do business in than say, Indonesia?

The importance attached to education among Asian families and the improving quality of these countries' education systems are also promising signs of tomorrow's prosperity. The following table lists the average maths, science, and reading comprehension scores from the OECD's Program for International Student Assessment (PISA). **Seven of the top 10 positions were filled by Asian contenders**, while Australia has sunk from no. 9 in 2006 to no. 21 in 2015. While one may not identify any strong correlation between a country's economic or industrial might and its students' academic achievements, the changes in ranking nevertheless indicate an encouraging trend for the Asian region. It is worth observing that while public education spending in Asia (around 2-4% of GDP) lags that of Western countries (about 5%), around 80-90% of Asian families are willing to complement the school system with private tuition, compared to just 20-30% of households in the West.

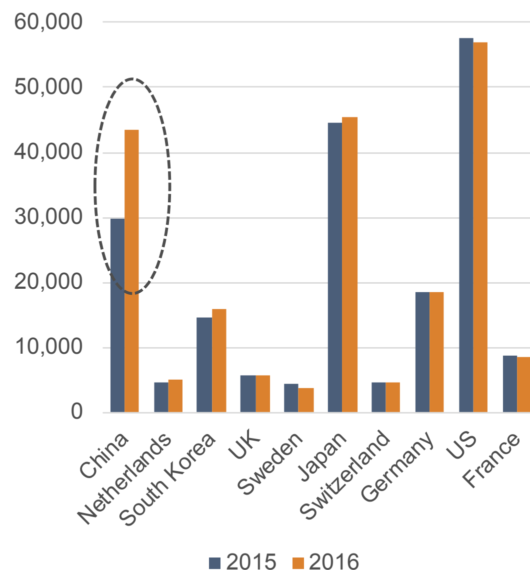
While the percentage of the population achieving a university degree remains low in Asia by comparison to Western standards, the number of graduates from the so-called STEM disciplines (Science, Technology, Engineering and Mathematics) as a proportion of the total number of graduates is much higher. Today, **China produces some 4.7 million STEM graduates each year and India about 2.6 million, versus around 560,000 STEM graduates from each of Russia and the US**. The amount of talent coming through suggests that China and India are far from being ill-placed in this technologically-driven age. As an aside, it is also encouraging that they can't all rush off to join high-paying jobs in Wall Street and, indeed, look how the Asian nations have scored in terms of **patent registrations**. Note that **China is now levelling with Japan**, and that Korea, with its relatively small population of 51 million, ranks well ahead of several European countries which led the first industrial revolution.

PISA – Average Maths, Science & Reading Scores

2015 RANK	COUNTRY	2015 AVERAGE SCORE	2006 AVERAGE SCORE	CHANGE IN RANK (2006-2015)
1	Singapore	552	543	+1
2	Hong Kong (China)	533	542	+1
3	Japan	529	517	+7
4	Macao (China)	527	509	+10
5	Estonia	524	516	+6
6	Chinese Taipei	524	526	0
7	Canada	523	529	-2
8	Finland	523	553	-7
9	Korea	519	542	-5
10	B-S-J-G (China)	514	–	–
11	Slovenia	509	506	+5
12	Ireland	509	509	+3
13	Germany	508	505	+4
14	Netherlands	508	521	-6
15	Switzerland	506	513	-3
16	New Zealand	506	524	-9
17	Norway	504	487	+11
18	Denmark	504	501	+4
19	Poland	504	500	+4
20	Belgium	503	511	-7
21	Australia	502	520	-12

Source: OECD (PISA)

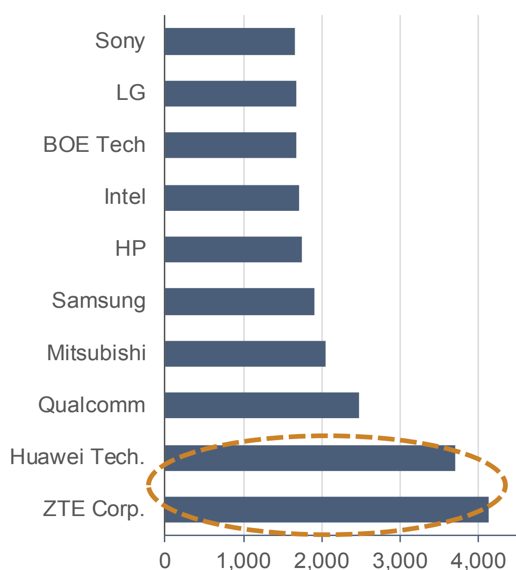
Number of Patents



Source: HSBC

There is little denying that there has been a great deal of purloining of Western technology by Asian companies, but that too is changing. A good indicator of the growing amount of original research being carried out in institutions in Asia is **the number of cited publications in scientific journals**. China and India have respectively moved up from the 9th and 13th positions in 1996 to the 2nd and 5th in 2016, a strong testament of the quality and quantity of their research efforts. These countries are now in the same league as the industrial powers of the US (1st), Britain (3rd), Germany (4th) and Japan (6th). All this data accords with what we have witnessed on the ground. Take the Pearl River Delta region in southern China for example. This used to be the manufacturing capital of the world for apparel, toys and plastic flowers, built on the back of cheap labour and imitation of others. Today, the region is motivated by technological innovation and higher value-added products – how to become more competitive with less labour. The number of patent applications by companies such as Huawei and ZTE is double those by Sony and Intel, which is just one of the many manifestations of this powerful trend.

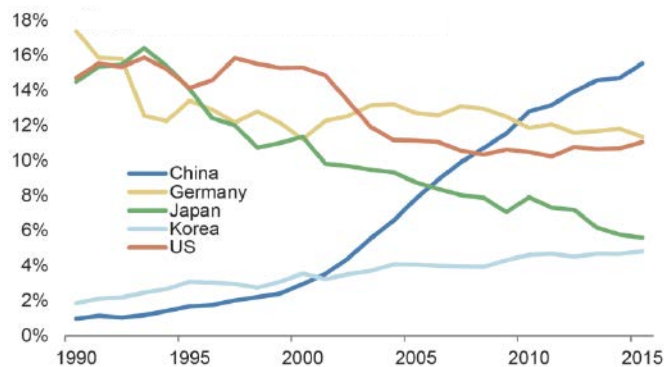
Number of Patent Applications



Source: HSBC

China's share of the world's **high value-added exports** has risen dramatically during the past two decades. As its state-owned enterprises (SOEs) shrunk relative to the economy in the late 1990s and early 2000s, a wave of foreign companies relocated parts of their production from Japan, Taiwan and many Western countries to set up base in China, bringing with them capital as well as technological know-how. This was later reflected in a rising trend of elaborate manufactured goods such as laptops and smartphones. Incidentally, as the following chart shows, Korea has also been a winner of high value-added exports, while the share of

Share of World's High Value Added Exports

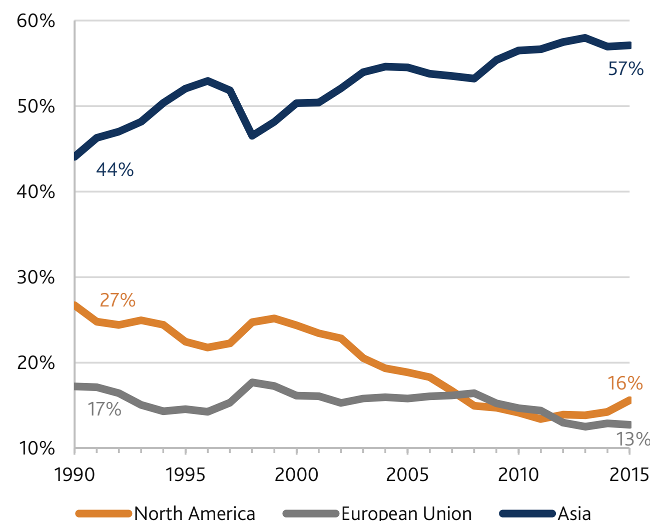


Source: WTO, Morgan Stanley Research

these products from the US, Japan and Germany has been in slow decline. In the coming decade it would not be surprising to see yet another shift with exports from China being led by companies winning orders on the basis of home-grown intellectual property.

Not only is Asia becoming less dependent on Western technology, it is also **becoming less dependent on trade with the West**. In the early 1990s, exports to North America and the EU together accounted for around 44% of Asia's total exports. This has now dropped to 29%, while the share of intra-regional trade amongst Asian countries has increased from 44% to 57%.

Share of Exports from Asia



Source: Asian Development Bank (Asian Economic Integration Report – December 2016)

Alongside this change as well as a **high propensity to save by Asian households** (typically 20-30% of income, versus 5-10% in the West), we find a region with enormous current account surpluses, China and Korea in particular, but also Thailand, Vietnam and the Philippines, with only India and Indonesia still reliant on foreign savings. However, one implication of this tendency is that should a larger portion of

the savings of these countries become absorbed at home, the cost of borrowing for deficit countries such as Australia, the UK and the US is doomed to rise. Please do not ignore this probability as greater social support in some Asian countries (pensions, healthcare and education) will reduce financial insecurity and the attendant precautionary savings bias.

The economies of the major Asian countries are not only expanding, they are also changing structurally. **China's service sector**, which used to be pitifully small in the pre-Reform era, now accounts for about **50% of the national GDP**. In India, the service sector has always been bigger, contributing some 60% of the economy. Combined, China and India now account for 8% of the global service trade. Last year, 117 million people boarded flights from China's airports to travel abroad, the largest tourist exodus anywhere in the world.

It was 20 years ago when we had the so-called Asian financial crisis where the world threw up its hands and the IMF instructed the use of harsh contractionary medicine to right their affairs in exchange for support packages.[1] Roaring growth, massive inward investment flows to complement current account deficits and fixed exchange rates led to misadventures of extrapolation. As the tide turned with rising interest rates and as flows began to reverse from deteriorating export earnings momentum, countries such as Thailand, Indonesia and Korea were caught in the vice of huge foreign denominated debt obligations and the shearing of their exchange rates. The crisis scarred these Asian nations' policy makers for a generation regarding currency mismatching and credit growth, and the mercantilism that followed allowed the accumulation of massive foreign reserves. Today, China has some US$3 trillion in reserves while India has US$350 billion and Thailand US$175 billion. While the interventionist policies of these governments have been a source of friction with the West, they are a reflection of the lessons learned from the earlier mishap. Today, most Asian countries have an external debt-to-GDP ratio of less than 50%, compared to some Western nations at 300%. It is of course ironic that when the West experienced its financial crisis in 2008, the IMF's advice was to "spend your way out of this".

All of these facts point to an Asia that has changed beyond recognition. This is a group of countries that are surging ahead, growing quickly, and doing so mostly with internal funding. They have the wherewithal to continue to grow and prosper. Yet, they barely feature in many international portfolios. The **MSCI AC World Index has a weighting of just 8.4% for Asia ex-Japan**, an unjustifiable under-representation given that the region accounts for close to **40% of global economic activity**. In our view, Asia is the world's growth driver, and investors cannot afford to miss it.

Apart from a path-dependent bias about Asia in general, investors may also have exaggerated concerns, in particular, regarding the problems facing China. We do not seek to argue that there are no problems, but rather, that these problems are not quite as simplistic as they are portrayed in the press, and it would be a costly mistake to **overlook the opportunities out of a misguided refuge in fear**.

First and foremost amongst these concerns is **China's extravagant use of debt**. However, unlike many doomsayers, we do not foresee any imminent collapse. One of the ways in which the Chinese government has sought to address the issue of bad debt in the banking system, and with evident success, has been a determined, if slow-coming, blitz to remove surplus and inefficient production capacity of commodities such as steel, coal, cement and chemical products like PVC. What had led to this over-building was the unbridled competition that originated from an **unholy alliance among growth-targeting regional governments, regional banks and entrepreneurs**. The central government has now reined them in, having despatched some 5000 inspectors to scour the country for polluting offenders. This simultaneously addresses environmental pollution and bad debts. The real significance of this reform is that commodity prices have risen sharply and, with them, so has the profitability of the remaining higher-quality producers. For example, with 120 million tons of capacity shut down, steel prices have more than doubled since November 2015. With improved profits and cash flows, commodity producers (coal and ferrous metals alone account for nearly a quarter of all SOE debt) are now either repaying their loans or building up a cash reserve after paying the banks their obligations on credit lines. The rationalisation of industrial capacity, the so-called "supply side reform", has been absolutely fundamental to the turnaround of China's financial system, and the results are already being felt. (For further details on China's supply side reform, I urge you to read this quarter's *Macro Overview* by Andrew Clifford, Platinum's CIO, at www.platinum.com.au.)

Many investors we meet still think of **China as being dominated by inefficient SOEs**. The inefficiencies may remain, though there is change afoot regarding shared ownership and management profit participation. However, the **proportion of urban residents employed by SOEs is now about 20%**, having dropped progressively from 80% at the turn of the century. In 2000, the state was responsible for about 80% of China's industrial output, and the private sector 20%. That too has reversed, with the state now producing 20-25% of the physical output while the dominant share of output is coming from an increasingly robust private sector. While SOE debt (about 115% of GDP) remains a problem, the measures cited above and the preparedness to raise prices of important utility services like power, water and

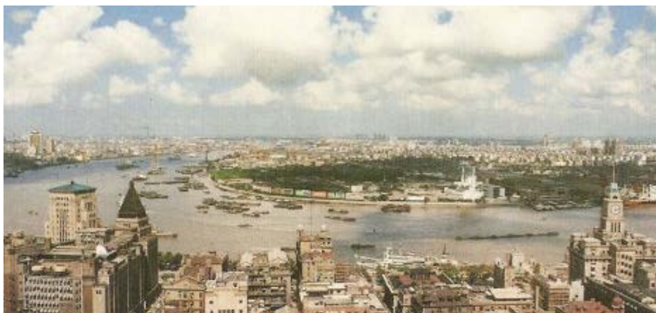
1 These structural adjustment packages (SAPs) required the recipients to reduce government spending, to allow insolvent financial institutions to fail and to raise interest rates sharply.

waste gives clear sight of remedies. In the meantime private enterprise that had been deleveraging since 2013 has started a capital spending cycle and is clearly the backbone of the economy.

Like its state-owned coal and steel plants, **China's spending on infrastructure** is often viewed as wasteful and excessive, and a problematic product of a credit binge and loose lending. Of course, the challenge lies in assessing need versus desire and the appropriate planning time horizon. Our own experience is that facilities like roads, rail and airports that seemed under-utilised several years ago now feel as though they are bursting at the seams. Without this prescience, which is being extended internationally with One Belt One Road (OBOR), bottlenecks would be common. For example, China now has the world's largest high speed rail network – more than 22,000 km in total. Some might construe this as chest-beating. But consider the movement of people between Shanghai and Beijing: There are some 50 daily movements of aircraft each way between these cities, which are some 1300 km apart, and there are nearly the same number of express train movements. The aircraft are moving some 10 million people a year while the express trains are moving as many as 160 million a year and have recently raised their maximum speed to 350 km/hr to complete the 1318 km journey in under 4.5 hours. Booking in advance is advisable! A country of such a vast area and such a large population requires infrastructure of this scale to grow and develop. If it still feels like "over-building", one only needs to think back to the grand projects of New York or London more than 100 years ago.

China's property market is yet another area that raises concern. Western media love to mention the "ghost cities" and empty apartments. But if there really is oversupply, why do prices keep rising, and why do governments see a need for policy intervention to curb price increase? In each of the last seven years, authorities have increased the percentage of up-front payment required on purchase (typically a minimum deposit of 30% for first time home buyers, higher for subsequent purchases and also higher in top tier cities), and restrictions on mortgage lending have become ever more stringent (loan to value ratio is estimated to be about 50%).

An answer may be found if one looks more closely at the forces of demand. About 55% of China's population are now living in urban areas. Each year there is an **influx of 20-25 million migrants** leaving their rural villages to move to the cities. The government has been reforming the household registration (or *hukou*) system, which was put in place in the pre-Reform era to control the movement of residents. Under the *hukou* system, all forms of social welfare are tied to one's place of birth and residency. A rural resident moving to a city was not entitled to such benefits as health care, education and pensions as his or her rural *hukou* was not transferable. The rules have been incrementally relaxed and modified to facilitate urbanisation, and we are seeing more and more rural residents relocating to live in towns and mid-tier cities, and not merely as temporary migrant workers in mega cities like Beijing and Shanghai. **This is the underlying driver for the sizeable housing demand in China.** Some 140 million modern apartments have been built in China since the turn of the century, and around 8 to 9 million are currently being



Left: Shanghai, China – 1990 and 2010 Right: Shenzhen, China – 1980s and 2000s
Source: http://weburbanist.com/2011/02/21/then-now-the-stunning-speed-of-urban-development/

added each year. But an estimated 150 million households are still living in communist era dwellings, ready to upgrade, or are leaving their traditional rural villages to settle in the cities. Our observation is that while there are some speculative developments, there is enormous inherent demand. This is partly evidenced in the fact that second-hand property prices are growing faster than new property prices and inventory levels are at a healthy level (less than 10% in tier 1 and tier 2 cities, and about 20% in tier 3 cities).

Last but not least is the **technological leapfrogging**. We have written extensively about the rise of e-commerce and digital payment systems in China. Far from being emulators of Western companies like Facebook and eBay, Chinese tech companies such as Tencent and Alibaba have been innovating relentlessly. Utilising the vast amounts of data from China's 1 billion netizens, they have been pushing the boundaries of technology and creating new business models with platforms like WeChat, Taobao and their associated e-payment services. It is not hard to find examples of remote rural villages being transformed by e-commerce. Farm produce that was previously land-locked has miraculously found markets long distances away and been rewarded with higher prices because of improved communications. E-commerce giant JD.com, for example, is expanding its logistics network with delivery drones on the one hand and despatching advisors on the other hand to provide online shopping assistance to villagers.

Far from slowing down, the pace of technological advancement will likely accelerate in the coming decades as the Chinese government turns its policy focus to boost investment and R&D in areas such as renewable energy, electrical vehicles, artificial intelligence and biotechnology. Unlike the sporadic ad hoc initiatives that one finds in some Western countries, China appears to have a more coherent policy framework with a longer-term outlook, from the push for more fundamental scientific research to providing both direct and indirect support for start-ups. By one recent estimate, China now has 89 unicorns (unlisted start-ups with a valuation of more than US$1 billion) – about one-third of the world's total number, and they are said to be worth a combined US$350 billion.

The enthusiasm for reform and development is not confined to China. In India, the Modi government has brought in a series of important policies with far-reaching impact. The goods and services tax **(GST) is expected to expand the country's tax base**, improve administration efficiency and ease compliance burdens for businesses over the long-term. The enactment of the **new Insolvency and Bankruptcy Code** is a long over-due legislative overhaul to reshape the country's dysfunctional banking system. It finally provides creditors with a **legal recourse to recover debt** and will prevent debtors from circumventing liability by obfuscating through the courts.

We have also seen a boost to infrastructure spending. When Modi was elected Prime Minister several years ago, India was building a few kilometres of highway each year. They have since been on a building spree, now laying **25 kilometres of highway a day** and the National Highways Authority is planning to construct 50,000 km by 2022. As we have seen with China, infrastructure can transform a nation and lay the foundation for India's development in the years to come.

Technology is another powerful factor in India's roadmap to economic prosperity. Its world-leading **biometric identification system (Aadhaar)** has now registered more than 1 billion Indian citizens with their fingerprints and iris scans. Together with the spread of mobile phones, the Aadhaar ID system has enabled hundreds of thousands of India's poor to open bank accounts and to directly receive government subsidies. Technology has allowed the government to bypass corrupt middlemen and reach the economically disadvantaged directly. In India's cities, we are seeing a similar wave of innovation in e-commerce and fintech as we are seeing in China, with companies like Amazon setting up operations to compete with indigenous start-ups like Flipkart.

To conclude, it is simply **meaningless** to discuss the world economy today **without properly understanding the tectonic transformation** that we are witnessing in Asia. It feels as though China and India are occupying the same space that America once occupied in the 1950s-70s, when its sense of purpose, scale and innovation left the staid structures of Europe gasping. There seems a high probability in Asia's future growth and prosperity, conscious as one is of such sweeping proclamations, given the scale, ingenuity, diligence and thrift that is characteristic of the region.

We are very optimistic about the opportunities on offer in Asia and have around 41% of PMC's assets invested in the companies of the region (not including Japan).[1] Many of these companies are on a par with the best of the West in their respective fields, and are delivering excellent returns on capital.

1 As at 30 September 2017.

Platinum® CAPITAL LIMITED

Level 8, 7 Macquarie Place
Sydney NSW 2000

GPO Box 2724
Sydney NSW 2001

Telephone
1300 726 700 or +61 2 9255 7500
0800 700 726 (New Zealand only)

Facsimile
+61 2 9254 5555

Email
invest@platinum.com.au

Website
www.platinumcapital.com.au

Notes

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   The MSCI All Country World Net Index (A$) returns have been sourced from RIMES Technologies. Index returns are in Australian dollars and include dividends, but, unlike PMC's returns, do not reflect fees or expenses. The gross MSCI index was used prior to 31 December 1998 as the net MSCI index did not exist then.

   For the purposes of calculating the "since inception" returns of the MSCI index, PMC's portfolio inception date is used.

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2. The geographic disposition of assets (i.e. the positions listed other than "cash" and "shorts") represent PMC's exposure to physical holdings (equity and corporate fixed income securities) and long derivatives (of stocks and indices) as a percentage of PMC's portfolio value.
3. The table shows PMC's major currency exposure as a percentage of PMC's portfolio value, taking into account any currency hedging.
4. The table shows PMC's top 10 long stock positions (through physical holdings and long derivative positions) as a percentage of PMC's portfolio value.

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