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Asian Gamechangers

A Germany Every Three Years

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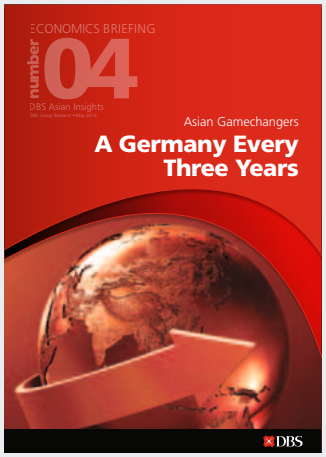

Asian Gamechangers

A Germany Every Three Years

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Executive Summary

- The shift in economic gravity from West to East continues
- Since Lehman Brothers collapsed five years ago, Asia has added 1.25 Germanys to the world's economic map, right here in Asia
- Even with China's slower growth, Asia now puts a Germany on the map every 3.5 years. The time it takes to do so shrinks every year
- Over the next 25 years, Asia will add three Eurozones to the global economy. In 2039, it will be creating a Germany every seven months
- Nobody saw this coming in 2008. Most argued it was impossible. But the shift in economic gravity is the biggest structural change underway in the global economy today. Practically by definition, that makes it a gamechanger to reckon with. Probably the biggest

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Asian Gamechangers

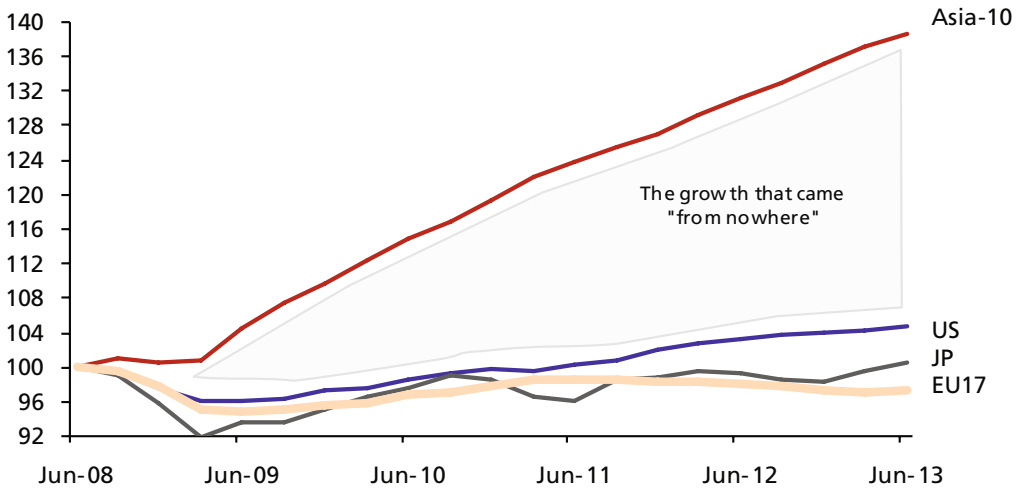
The IMF recently released a report showing that, in purchasing power parity (PPP) terms, China's economy has now become as large as the US [1]. This quickly spawned a surprising number of almost defensive articles pointing out the flaws of PPP measurement, how many great universities there still are in the US and, somewhat more precariously, how size really doesn't matter.

They're right of course. You can't pay for a hotel room with PPP dollars – they're imaginary. The US still has great universities – even the dropouts go on to create Silicon Valleys. And no, size isn't everything – it's what you do with that size that matters. What do you generate? What do you create? Do you drive global growth, or sit back and watch the world go by?

1

Real global GDP

2Q08=100, seas adj



The immaculate recovery

In the midst of the biggest crisis in 100 years, Asia added an entire Germany to the world's economic map

But this is where the naysayers get it wrong. Or, rather, miss the point. Asia, with China at its centre, didn't just catch up with the US. When it comes to generating new demand – demand that is the very definition of global growth – Asia surpassed the US a long time ago.

Nobody saw it coming; most said it was impossible

In 2008, the global economy collapsed in what became the biggest financial crisis in 100 years. The US, Europe and Japan ran sideways-to-downwards for four full years. What did Asia do over this four year period? It 'added' an entire Germany to the global economic map, right here in Asia.

Nobody saw this coming. In fact, most argued the very idea was impossible. Back in 2008, everyone thought the US consumer drove global growth. She bought and bought and bought and the US ran big current account deficits. Asians, supposedly, didn't buy

anything. They produced and sold to the West and saved the money and ran big surpluses. The world was 'imbalanced', the argument went, and if that US consumer ever died, Asia would die a death even worse.

The shift in economic gravity is the biggest structural change underway in the global economy today

People argued about it some, mostly to little effect [2]. But in 2008 the ultimate test came: the US consumer did die. So did the Japanese one and the European one. Those economies went nowhere for four years. And while they did, Asia put a Germany on the map. The test tube was harsh but it answered once and for all the twin questions of who was generating the new demand in the world and who depended on whom for growth.

Ah, but didn't low global interest rates and government spending help? Of course. And that still misses the point. Interest rates were even lower and governments spent even more in the US, Europe and Japan. The G3 went nowhere. Asia put a Germany on the map. All by itself. During the biggest crisis in 100 years. That's the point.

Ah, but can Asia do it again? After all, China has slowed, some would say sharply. The answer is, yes it can, and already is – faster than before, not slower.

To be sure, China has slowed. And it will continue to slow in the years ahead. All countries do. No matter. Even with China's slower (7.5%) GDP growth, Asia now adds a Germany every 3.5 years. In four years' time, it will do the deed in three. Four years after that it will take even less time.

A Germany in 3.5 Years, Three Eurozones in 25

If Asia adds a Germany every 3.5 years today, and the time it takes to do it shrinks every year, what will Asia have put on the map in, say, 25 years? The answer is: three Eurozones, maybe more. Imagine it. Take out your map of the world. Look at Europe. Multiply it by three and plop the result down somewhere on top of Asia. That's what the map will look like in 2039.

It's more than big stuff. The shift in economic gravity is the biggest structural change underway in the global economy today. Almost by definition, that makes it one of the biggest, if not the biggest, gamechanger out there. It's not a Silicon Valley, it's not a cure for cancer. For the most part, it's brute force growth – catch-up with the West after lagging for 150 years. But force is force and the shift in gravity that most denied just five years ago is bound to bring enormous change.

Changes

What kind of changes? It's hard to imagine much of anything that won't be impacted. And while a discussion of the many possibilities is beyond the scope of this note and would run far outside the realm of economics, a few thoughts from quarters relatively close to home may be proffered:

Geopolitics

Surely the global pecking order will change. How could it not? Politics may drive economics in the short-run but in the longer term cause and effect are reversed. Big structural changes in the global economy must bring big structural changes in the geopolitical order.

Global financial markets

The renminbi seems destined to supercede the dollar. China is already world's largest trader [3] – imagine where it will be in 2039. Three additional Eurozones makes it easier to appreciate that China doesn't just want a globalised renminbi, it needs one. So does the rest of the world.

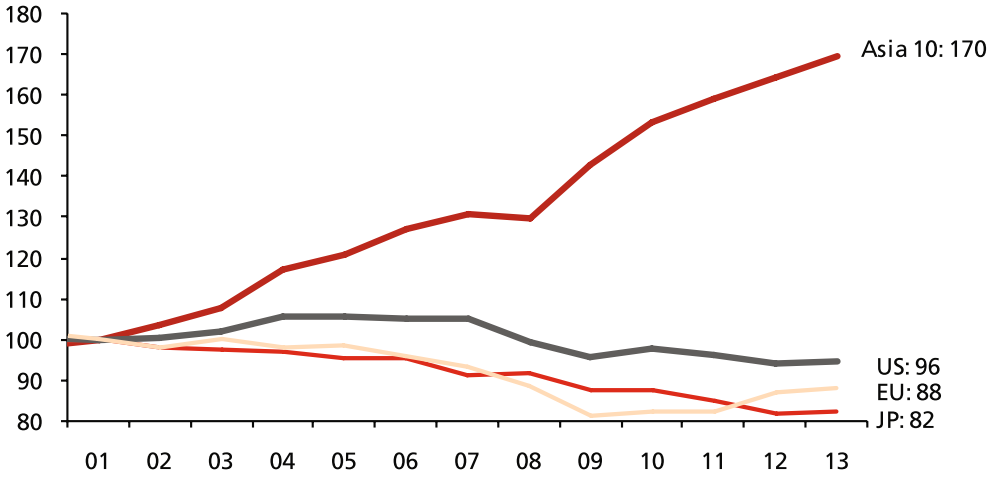
Urbanisation

Three additional Eurozones also makes it plain why China could care less about its short-run cyclical growth rate and why attention has completely shifted to longer-term structural issues. As discussed below, some 80% of those three Eurozones will be situated in China. They can't go on the East Coast where pollution is already over the top. China needs to turn inland and to urbanise like never before. For most intents and purposes, the two terms should be treated interchangeably.

2

Global petroleum consumption

bbls/year, 2001=100, 2013=USEIA fcast



It's not a Silicon Valley and it's not a cure for cancer. But brute force is still force and it will bring big changes

Energy demand

It's been falling in the US, Japan and Europe for a more than a decade (chart 2). It's been soaring in Asia. China's per-capita energy consumption is one-eighth what it is in the US; India's is one-twentieth. Rising incomes mean Asia's energy demand will continue to soar. Asian, not G3 demand, will drive the price of energy.

Central banks

As Asia increasingly drives global energy prices, G3 central banks will lose the ability to control domestic inflation. When the Federal Reserve, European Central Bank and Bank of Japan can no longer control local inflation and the renminbi has become the world's dominant currency, the People's Bank of China will then be the world's dominant central bank. It won't be a first-among-equals kind of thing.

Capital flows

Capital will flow to Asia like never before. Why? Businesses want to be where the growth is. Ever hear one say different? In 2039, when Asia has added three Eurozones, it will be creating a Germany every seven months. That's a pretty big attraction. Inflows mean currency appreciation. Asian currencies will rise against the dollar, euro and yen. But exporters won't care. All they will care about is where their currency is vis-a-vis the renminbi.

A Germany every 7 months is quite an attraction. Capital will flow to Asia like never before

The Asian Century? We're past that. But we run ahead of ourselves. Let's start from the beginning and see how the gravity has shifted.

Who Drives Global Growth?

What do we mean when we ask who drives global growth? Arithmetically, we're asking who put the most new demand on the global table in any given year, quarter or what have you. Suppose for example GDP in the whole world last year was $100 – and that this year it is $110. Global GDP has grown by $10. If your country generated $8 of that $10 increment, you're pretty much the driver. If your country generated 10 cents of that $10 increment, not so much.

This begs the question: what makes you the driver? Who is the guy who generates $8 of that $10 total? If you're like most, your first answer is: the big countries – the big guys are the ones that will generate the big increments.

It's a good answer but not always correct. Japan may be the best example of 'size isn't everything'. It's a big country – half the size of the US – but it hasn't driven any global growth in 20 years. Why? Because it hasn't grown in 20 years. If you're not growing, you're not generating any new demand.

The naysayers are right: size isn't everything. It's size times speed that matters. And on that score, Asia surpassed the US long ago

Okay, so your second answer then is likely to be: the fast growers – the guys that grow fast will be the ones that generate that $10 increment. Another good try but again, not always correct. Asia is the best example here. Asia grew really fast for decades but it never drove global growth. Why? Because it was too small to matter. Fast growth on a small base doesn't generate many dollars of growth. It doesn't generate any force.

So the final answer is, you need some combination of both – you need size and speed, growth and girth – and you will be the guy who generates that $10 of growth. You will be the driver.

Trading Places: Asia and the US

When it comes to driving, Asia used to be too small to matter. This is no longer the case. To see this, calculate how much new demand the US and Asia generate today. It's easy. Size-wise, the US and Asia-10 are now roughly the same – GDP in both economies is about $16 trillion. Now, suppose the US grows by 2.5% this year – roughly consensus. On a $16 trillion base, that would generate $400 billion of new demand this year.

Now consider Asia. It's grown at a little over 6% for the past two years and looks likely to do so again this year. On Asia's $16 trillion base, 6.25% growth will generate $1 trillion of new demand this year.

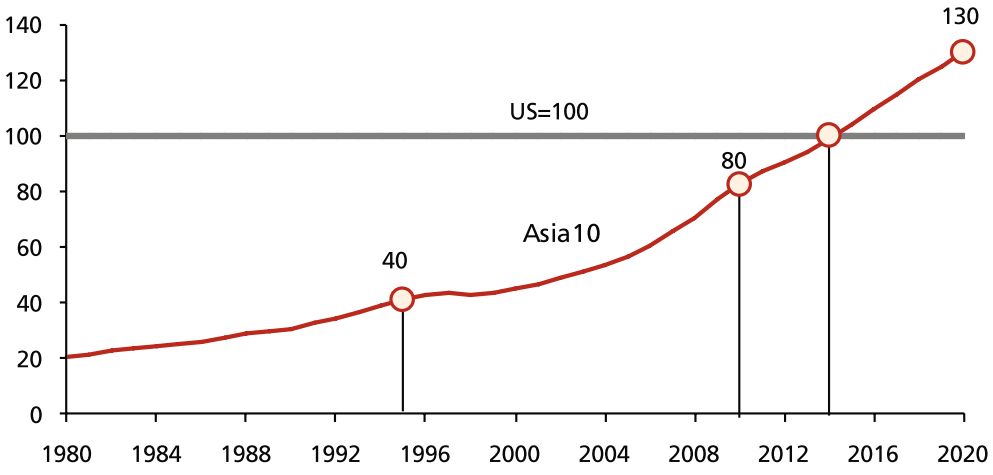
A trillion dollars of new demand from Asia, $400 billion from the US. For every dollar of new demand the US puts on the global table in 2014, Asia will put out $2.50. Asia is 2.5 times the driver of global growth that the US is.

There's no magic here. No hocus-pocus. Only grudging, grinding growth that eventually adds up

It wasn't always like this of course. If you go back 35 years, the tables were completely flipped. In 1980, the US put three dollars of new demand on the global table for every dollar from Asia. That's where the old saying came from – when the US sneezes, Asia catches a cold. Back in 1980, it was true. If the US did well, Asia did well. If the US stopped putting out new demand, so did Asia.

3 **GDP – US and Asia10**

in constant 2013 US dollars, US=100



But over the years, Asia grew. And grew. And grew. This is important – there's no magic wand here. No hocus-pocus. All there is, is grudging, grinding growth, year after year, that eventually adds up. In 1980, Asia was one-fifth as big as the US. By 1995, it had doubled to 40% the size of the US (chart 3). By 2010, it had doubled again to 80% of

the US and today, Asia is, dollar for dollar – 16 trillion of them – every bit as big as the US.

But incremental growth isn't just about size. We know that. It's size times speed that matters. Asia's faster growth – on a base now just as large as the US – makes Asia a 2.5 times bigger driver of global growth than the US. After 35 years, Asia and the US have traded places – relative contributions used to run 3:1 in favour of the US. Today they run 2.5:1 in favour of Asia.

And it's not going to stop here. Over the next 25 years, Asia's contribution to that $10 of growth will rise further and faster than ever before.

How can this be? Asia's population growth will slow. And Asia's GDP growth will slow [4]. The answer is that the base is now so big that even slower growth won't stop the train.

Convergence? Not So Much

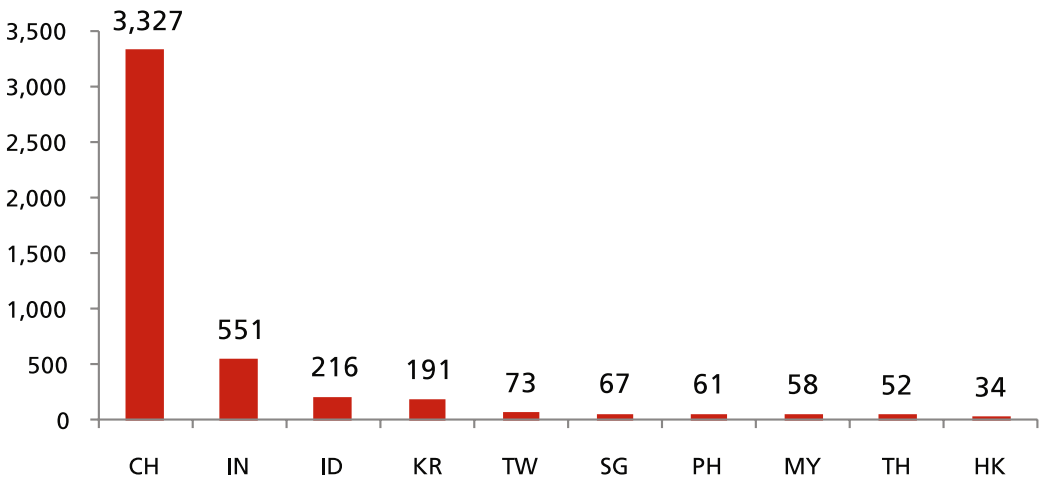
For better or worse, incremental growth in Asia is mainly about China and, to a much lesser extent, India, Indonesia and South Korea.

Look back at chart 1 – the five years since the collapse of Lehman Brothers and the 1.25 Germanys that Asia has put on the map. Some 72% of that new demand came from China. The three next largest contributors were India (12%), Indonesia (12%) and South Korea (4%). China's 72% share was 3.5 times greater than the shares of those three countries combined.

4

Asia-10: incremental GDP growth, 2008-2013

constant 2013 US dollars



China dominates Asia today. It will dominate even more tomorrow

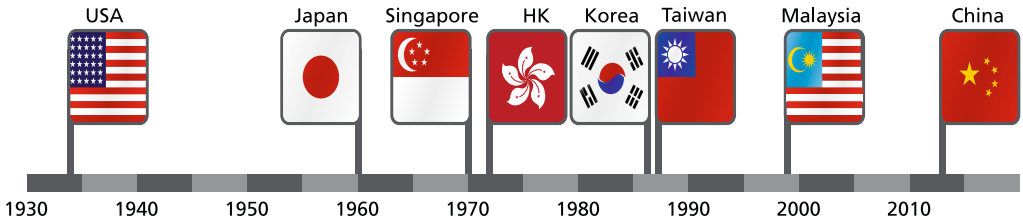
If you think that's lopsided, it is. If you think it will become less so over time, it won't. At least not anytime soon. China's GDP 'base' is 53% bigger than India's, Indonesia's and South Korea's combined. And its growth rate is 50% faster. Which means China is pulling away from the rest of Asia, not vice-versa. In 25 years' time, to some it could well look like the China Mall and a few boutique shops.

All Roads Lead to Rome

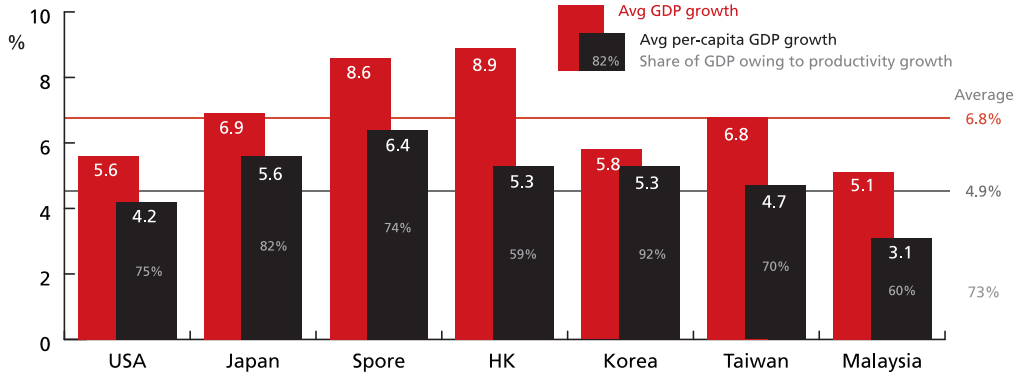
Broadly speaking then, you don't need to estimate ten different growth rates to gauge how fast Asia will be running 10 or 20 years from now. For most intents and purposes, China's growth rate will be Asia's growth rate. What's a plausible number?

5 **Year when per capita GDP reached US$7,000**

constant 2013 US dollars



6 **Average GDP growth over 25 years since GDP per capita reached US$7,000**



How fast did countries grow after incomes hit $7,000 per person? Surprisingly fast

History may be a useful guide. China's per-capita income today is US$7,000. In today's prices, that is where the US was 80 years ago in 1934 (chart 5). It's where Japan was in 1960 and where Singapore was in 1970. How fast did they grow after income hit $7k per person?

A lot faster than one might have guessed. After Japan's income hit $7,000 per person, GDP growth there averaged 6.9% for the next 25 years. Could China do that? Seems like a stretch. What about Singapore? What did GDP growth there average after incomes hit $7,000 per person? Eight-point-six percent for the next 25 years – even higher than Japan. Maybe there's hope for China yet?

Hong Kong? Better still! It grew by 8.9% on average over the 25 years following 1972. Okay, the US didn't do so well. But that fits the theory: the US didn't have a 'shelf' of foreign technologies to choose from – it had to invent things as it went along [5]. Still, 5.6% GDP growth wasn't bad (though World War II was a major stimulus).

A plausible assumption would be that Asia's growth drops to 5% over the next decade – and to 3.5% over the subsequent 15 years

The obvious caveat here is that a chunk of this surprisingly strong GDP growth owes to population growth and we've already noted that Asia's (and especially China's) will slow significantly over the next 25 years [6]. A better gauge of future growth, therefore, would be to look at what happened to per-capita GDP growth in these countries after incomes hit $7,000 per person.

Even here though (see chart 6), growth looks surprisingly strong. On a per-capita basis, Japan maintained growth of 5.6% per year for 25 years after income hit $7,000 per person. South Korea and Hong Kong both maintained per-capita growth of 5.3% for 25 years. Singapore, which constantly strives to reinvent itself, maintained per-capita GDP growth of 6.4% per year between 1970 and 1995.

The 4.9% per-capita average for these seven countries suggests that China might grow faster, and for longer, than some may presume. At the very least, history suggests per-capita growth of 4.9% is plausible and if one adds expected population growth of 0.3% to that, China's GDP growth could plausibly average 5%-5.25% between now and 2039.

Asia-10 growth may soon be subsumed by China but today it's running some 125 basis points slower at about 6.25% and has done so for the past two years. Going forward, a reasonable projection for the Asia-10 might be to drop growth in a straight-line to 5% over the next decade and to 3.5% over the subsequent 15 years. That would imply 4.8% average GDP growth over the next 25 years for the Asia-10, with 0.7% of that owing to population growth (according to the US Census Bureau) and 4.1% owing to per-capita income growth.

At today's prices and exchange rates, such a (falling) growth path still puts Asia-10 GDP at $52 trillion in 2039. That's a $36 trillion increment over today's GDP base of $16 trillion, and is equivalent to 2.9 times current Eurozone GDP ($12.5 trillion). Give or take a couple of bucks, Asia will add three Eurozones to the global economy over the next 25 years.

Real Time

All this growth won't be hidden behind a cloak and come springing from Zeus' brow in 2039. The world will watch it happen in real time. Asia will build the first Eurozone over the next nine years. It will take only eight years to build the second Eurozone and only seven years to build the third. By 2039, three Eurozones will have been constructed and Asia will be adding a Germany every seven months.

In per-capita income terms, China is 35-40 years behind Singapore today. Twenty five years from now, incomes will still lag by 15-20 years

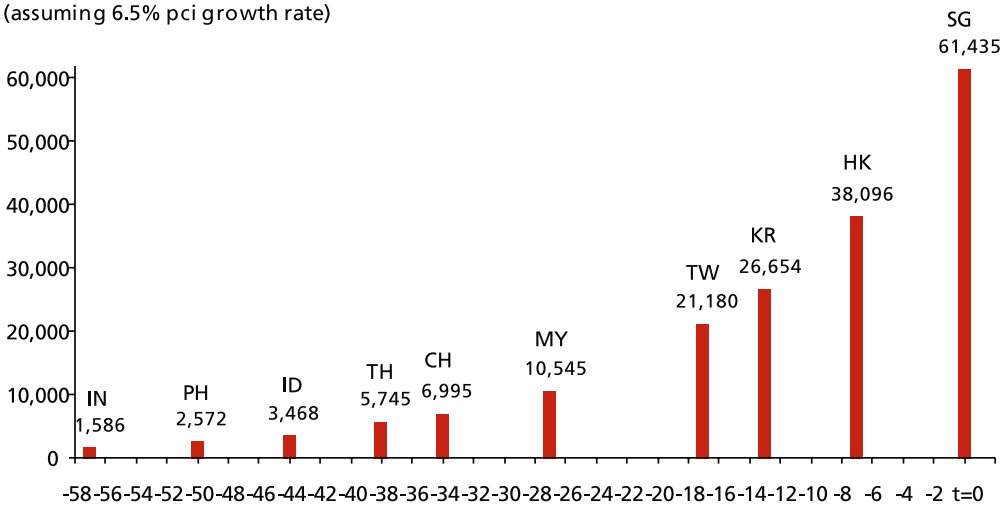
Will that be the end of it? Not if income gaps offer the potential for catch-up growth that they have since World War II. China today sits some 35-40 years behind Singapore (chart 7). If Singapore and the developed world go nowhere for the next 25 years, China will still be 10-15 years behind in 2039. If the developed world itself continues to advance modestly, China will be that much further behind. Potential for fast growth will remain. India and Indonesia, meanwhile, will remain 10-30 years behind China and though their bases will remain small compared to China in 2039, they will have grown greatly compared to the US or Germany or the Eurozone. The potential for further shifts in gravity from West to East will remain.

Fiction and Reality

All of this has an air of science fiction about it. But most would have said the same back in 2008 if you told them Asia was, global crisis notwithstanding, about to put 1.25 Germanys on the map. The shift in economic gravity isn't fiction, it's the biggest structural change underway in the global economy today. Where it leads may fall into the realm of science fiction but the force itself is real and present and growing. That obliges one to consider again some of the possible outcomes alluded to earlier.

7 **Asia - per capita GDP timeline**

USD per person in 2013 and number of years required to reach Singapore pci (assuming 6.5% pci growth rate)



First off, the geopolitical pecking order has to evolve. We're not political scientists and we're not professional historians. But we do know that creating a Germany every seven months carries a few perks with it and, for better or worse, global politics are going to change.

Second, China is already the world's largest exporter and importer. We reckon China's two-way trade will grow by some $4 trillion over the next decade [7]. Meanwhile, intra-Asian trade with China has already grown by eight to 12 times since 2000. China needs a globalised renminbi and the rest of the world does too.

Nobody saw the first Germany coming. Most argued it was impossible. But anyone with a calculator on their mobile phone could have multiplied Asia's base by a plausible growth rate and seen what it implied

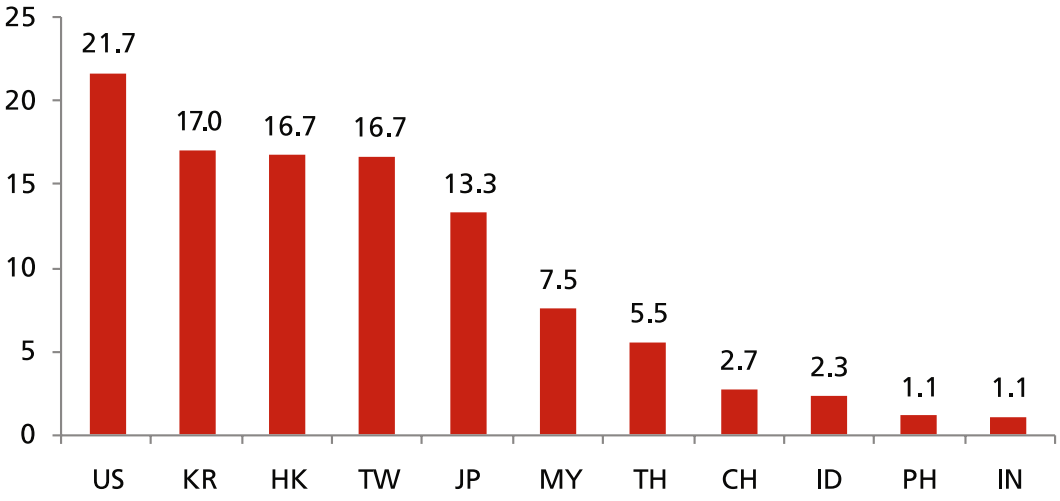
Financial sector reform is inextricably linked with the need for a globalised renminbi. Almost by definition, the latter implies an open capital account, which is not possible without a clean financial sector. The authorities are as anxious to clean up the books as investors are in having them do it. The clock is ticking.

Population growth is slowing but the number of people in Asia will still expand greatly. Between now and 2039, Asia will add the equivalent of 1.8 US to its headcount. For every addition to the US population, Asia's headcount will rise by seven. Most of these people, and more, will live in cities rather than the countryside. Urbanisation has become a key goal of the new Chinese leadership. Success is not guaranteed. Cities could become bright, gleaning sources of dream-like productivity gains. They could also become nightmares of slums and crime.

You can't superimpose two-plus Eurozones on China's Eastern Seaboard when it's already overcrowded and over-polluted. China has to look inland and it has to make cities 'work'. Urbanisation and inland development are as inextricably linked as a globalised renminbi and broader financial sector reform.

8 **Oil consumption per capita**

barrels per year, per person, avg 2012 - 2013



Energy demand? Per-capita energy consumption in China, India and Indonesia is one-tenth what it is in the US. Rising incomes will bring much the same consumer desires as elsewhere in the world. Asia's energy demand will mushroom. And G3 central banks may not be able to control the consequences.

Capital will flow towards Asia like never before. Any businessman wants to be where the growth is. Inflows and currencies will rise. To remain conservative, our growth assumptions above have held exchange rates constant. But if Asia's currencies were to appreciate by one to two percent per year over the coming 20 years, that would be the norm for developing economies, not the exception [8]. In that case, Asia wouldn't be adding three new Eurozones to the map by 2039 – it would be adding five or six. More food for thought.

Back to the Future

In the five years since Lehman Brothers collapsed, Asia put 1.25 Germanys on the map. Almost everyone missed it. Almost as many argued that the very idea was impossible. Yet anyone with a calculator on their mobile phone could have multiplied Asia's base by a plausible growth rate and seen what it implied.

It's just as easy to do the same thing today. And yet, many still believe and many still argue that the US is the driving force behind global growth. It's not. It hasn't been for a long time. The math is simple. Take out your calculator. Multiply Asia's $16 trillion base by your best estimate for real growth. What you'll get will be on the front page of every newspaper in the world in five years' time. But you'll be reading it today.

Notes

[1] Put simply, PPP methodology says that a haircut in Yunnan is worth the same as a haircut in New York City. In some ways it is. But a barber from New York can use his earnings to visit Yunnan. The barber from Yunnan cannot pay for his ticket to New York City with PPP dollars.

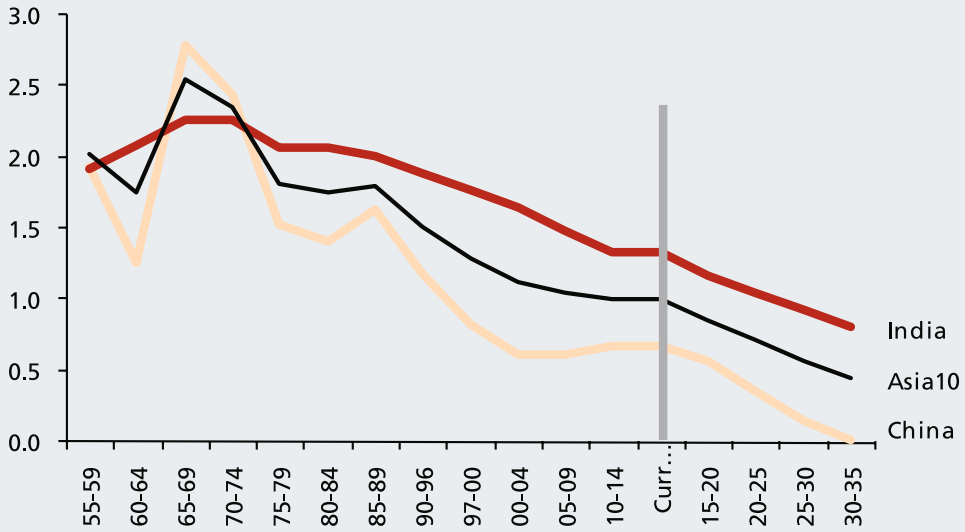
[2] The debates about 'decoupling' always missed the point. The very word sent people down the wrong path. The question was never whether Asia was decoupling from the West – just the opposite was occurring. The question was who was driving growth and increasingly the answer was Asia.

[3] See "A globalised RMB – Inventing the Necessary", March 18, 2013.

[4] Why must Asia slow? There are two main reasons. First, population growth will slow. Back in 1975, Asia-10 population was growing by 2% per year. Today, growth is half that. China's population growth has fallen to 0.7% and is expected to fall to 0.3% by 2023 and to zero by 2031 [US Census Bureau]. Overall, Asia-10 population growth will slow to 0.3% by 2039.

9 **Population growth and projections**

% per year, period average, US Census Bureau projections



The bigger reason why GDP growth will slow is that growth in productivity – output per person – will slow. Productivity growth has accounted for 80% of Asia-10 GDP growth since the 1960s and this fraction hasn't slipped in recent years. Asia's fast GDP growth was never about adding more people – it was always, and will remain, about finding ways for people to produce more.

The trouble is, that gets harder and harder as economies mature. At low levels of income and technologicial development, countries can pick all manner of capital goods virtually 'off the shelf' of more advanced countries. Higher productivity combined with low wages allow them to produce output more cheaply than their neighbours. Market share is stolen. Incomes rise. The circle is repeated. But each time you go to the shelf, it's a little emptier than before. And each time your wages go up, it gets harder to eat your neighbours' lunch. For both reasons, productivity, income and GDP growth slow. For more detail, see See "Asia 2020", September 18, 2011.

[5] See [4] above.

[6] See [4] above.

[7] See "A globalised RMB – Inventing the Necessary", March 18, 2013.

[8] See "Asia 2020", September 18, 2011.

Sources:

Except where noted, data for all charts and tables are from CEIC Data, Bloomberg and DBS Group Research (forecasts and transformations). Global oil consumption and production data are from the USEIA. Population projections are from the US Census Bureau.

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