

China's Investment Boom: the Great Leap into the Unknown

In this report we describe the background to and the extent of the capital spending bubble in China and identify factors that will precipitate its deflation. We focus on Chinese capital spending firstly because it is the single most important driver of current Chinese and global growth expectations and, secondly and more importantly, investment-driven growth cycles tend to overshoot and end in a destructive way.

We conclude that the capital spending boom in China will not be sustained at current rates and that the chances of a hard landing are increasing. Given China's importance to the thesis that emerging markets will lead the world economy out of its slump, we believe the coming slowdown in China has the potential to be a similar watershed event for world markets as the reversal of the US subprime and housing boom. The ramifications will be far-reaching across most asset classes, and will present major opportunities to exploit. There are three key reasons why we take this view:

China's expansion cycle surpassing historical precedents: It is widely believed that China is still in an early development phase and therefore in a position to expand capital spending for years to come. However, both in its duration and intensity, China's capital spending boom is now outstripping previous great transformation periods.

Policy actions not sustainable into 2010. This year's burst in economic activity has been inflated by a front-loaded stimulus package and a surge in credit growth. Given their exceptional and forced nature we believe growth rates in government-driven lending and capital spending will collapse in 2010.

Overcapacity and falling marginal returns on investment: Analysis of industrial capacity, urbanisation and infrastructure development shows that China's industrialisation and structural modernisation are largely complete. Combine this with falling returns on investment, and it becomes obvious that China's long-term investment needs are grossly overestimated.

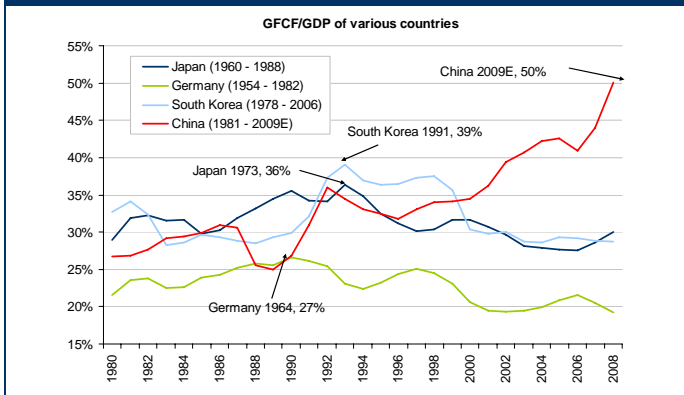
China's Capital Spending in Uncharted Waters

In our view investors have underestimated both the maturity of the Chinese growth cycle as well as the degree to which recent growth is a direct extension of the global credit bubble. This bubble had two major manifestations. The first, which started unravelling globally in early 2007, was evident in excesses in real estate, consumption and private equity. The second manifestation, which has yet to fully deflate, was a boom in capital expenditure, led primarily by China.

The Chinese economic "miracle", referring to the past 30 years of growth at an average real rate of 10% can be broadly split into three periods. In the 1980s, the first stage was unleashed by modest reforms of Deng Xiaoping such as liberalisation of prices in the agricultural sector. After a brief pause coinciding with the Tiananmen events, the second stage concentrated on rationalization of labour that saw a proliferation of light industries at the expense of agriculture and State Owned Enterprises (SOEs). The third stage has been focused on expansion of heavy industries and infrastructure. What all three stages had in common was a central role of investments as a driver of economic growth. Indeed, China has emulated the path of other countries that have rapidly developed in the second half of the 20th century driven by high investment to GDP ratios (we focus on Gross Fixed Capital Formation, GFCF, which is a broad definition of investment). However, both in its duration and intensity, China's capital spending boom is now outstripping previous great transformation periods (e.g. postwar Germany and Japan or South Korea in the 1980-90s, chart 1).

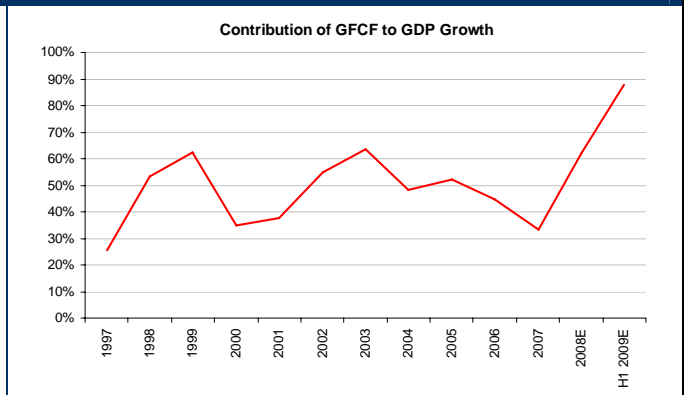
The gradual increase in China's investment ratio that started in 1998 has now reached unprecedented levels. As a result, capital spending has become the dominant growth driver. We estimate that GFCF accounted for 70% of China's growth in 2008 and close to 90% of China's H1 2009 growth (chart 2).

1. China's investment boom unprecedented



Source: IMF, Pivot

2. Growth dependent on capital spending

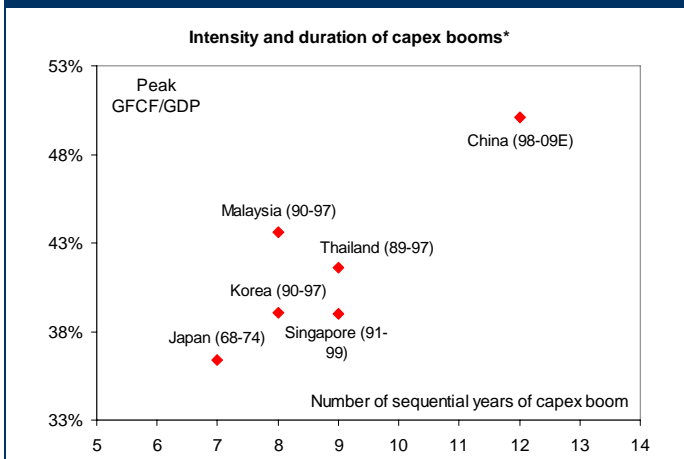


Source: National Bureau of Statistics, Pivot

Amazingly, the ratio of GFCF to GDP is expected to exceed 50% this year, which would be well above the highest GFCF to GDP ratio any Asian country reached in their mid 1990s booms. Another salient observation is that the longest period any country maintained GFCF to GDP in excess of 33 % was nine years (Thailand 1989-97, Singapore 1991-99, chart 3). China is now in its twelfth year of investment boom.

The experience of the Asian tigers, as well as the post-war reconstruction periods of Germany and Japan, provides highly relevant benchmarks for analyzing China's multi-decade growth process and current situation. The eventual reversion of investment ratios in those countries tells a cautionary tale on its own, however, what makes the situation even more alarming, is the rapidly decreasing efficiency of China's investments. In the third decade of expansion, the Incremental Capital Output Ratio (ICOR)¹ in China has markedly deteriorated compared to the previous two decades as well as to other high-growth countries in their pre-peak investment stages. In 2009 China's ICOR will be more than 2 times higher than the 80s and 90s average (chart 4).

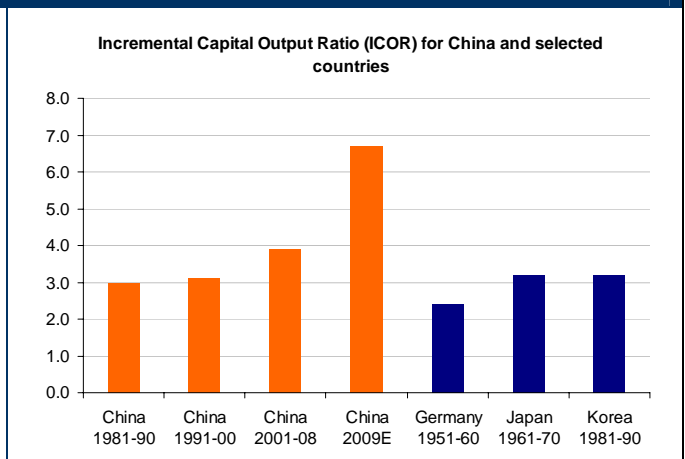
3. China's Capex boom breaking all records



Source: IMF, Pivot

* Capex boom is defined as sequential years with GFCF/GDP in excess of 33%

4. Efficiency of Chinese investments deteriorating



Source: IMF, Pivot

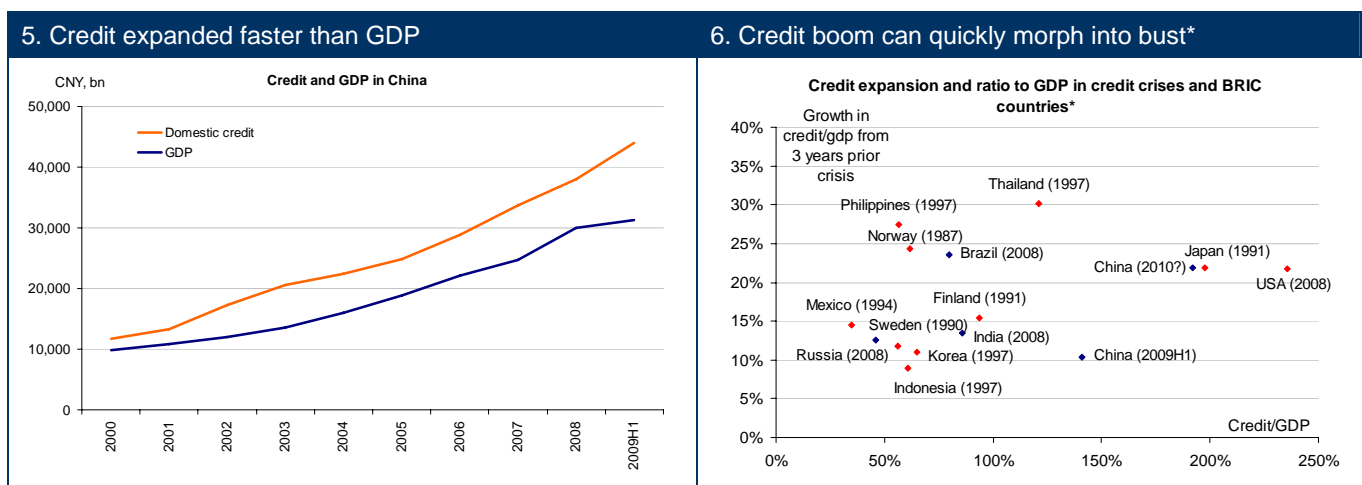
The falling marginal returns on investment are symptomatic of the increasingly speculative nature of China's capital spending boom, where a self feeding process of credit growth and investments in manufacturing, infrastructure and real estate is currently under way. This process has been reinforced by central and local party officials eager to address bottlenecks through building so much capacity as to make sure they would not need to ask for more money in the current 5-year plan, simultaneously maximizing short-term growth. However, the decreasing efficiency of investments will ultimately lead to a pullback in capital expenditures. In a soft landing scenario, China is likely to shift to a lower growth trajectory for the next decade. In a hard landing scenario, which is entirely feasible, there would be an abrupt decline in capital spending exacerbated by a banking crisis.

¹ Incremental Capital Output Ratio is defined as the ratio of Gross Fixed Capital Formation to GDP divided by real GDP growth. The lower the ratio, the more efficient capital spending is at generating growth.

Credit Growth at Critical Point

Similarly to the housing and consumption bubbles in the Western economies, credit has played a pivotal role in the investment bubble in China. Since the beginning of the decade up to H1 2009, domestic credit in China has expanded 50% more than GDP (chart 5). China is an outlier compared to the other “BRIC” countries in terms of the credit to GDP ratio (140% as of H1 2009) and is already beyond the levels that historically have led to sharp and brief credit crises in the past (chart 6). If loans continue to grow at the current 35% rate, credit to GDP ratio will be close to 200% in China already in 2010, even with GDP expanding at 10%. This is a level similar to the pre-crisis Japan in 1991 and USA in 2008. All this points to that credit in China is not going to be able to grow for much longer without risking a major crisis.

At the same time, the effectiveness of domestic credit in generating growth is collapsing. In the period from 2000 to 2008, it took on average \$1.5 of credit to generate \$1 of GDP growth in China. This compares very favourably with the peak \$4 of credit for \$1 of GDP in USA in 2008. However in H1 2009 in China this ratio was already at around \$7 to \$1. Credit might be going into the luxury property and stock markets, but the trickle down to the real economy is very poor.



Source: PBoC

Source: IMF, Pivot

*Previous instances of credit crises marked with red dots. “BRIC” levels are in blue for comparison purposes. China in 2010 based on 35% credit growth and 10% GDP growth for 2009 and 2010.

It is important not to forget that China was a big beneficiary of the global credit bubble as it had an effect of stimulating demand for its exports. China’s net exports grew ten times between 2003 and 2008. These external inflows, coupled with FDI and “unexplained” inflows through the formally controlled capital account helped firms, especially in the exporting sector, to raise funding necessary for capital investment to complement the loans². Indeed, in 2007 and 2008, trade surplus, FDI and “hot money” were even more important sources of liquidity than credit (chart 7).

Year to date 2009, China’s trade balance has shrunk 20% and FDI has fallen 18% compared to last year. In June and July 2009 the trade surplus was lower than respective months in 2005 and it is quite conceivable that it will be close to zero by the end of 2009. Part of the explanation for that might be rising commodity prices; however, fundamentally the contraction of China’s surplus is a natural part of the correction of the “global imbalances”. In addition to that, “hot money” inflows also turned around, resulting in a substantial slowdown in accumulation of reserves.

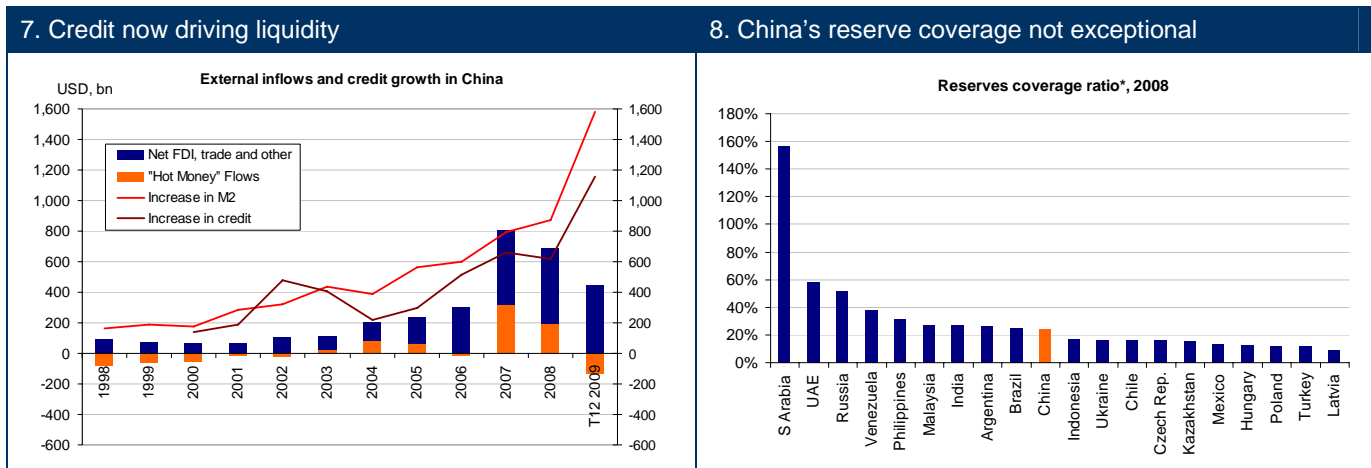
One of the counter-arguments to the facts mentioned above is that China can *afford* capex spending at these levels for a prolonged period of time. After all, China’s government does not have much explicit debt (23% of GDP) and sits on \$2tn worth of foreign exchange reserves.

² Official statistics attribute as much as 60-70% of total sources for capex to “self-raising funds”, but we doubt that these numbers are correct. Capital investment accounted for half of the growth in GDP from 2003, so if 60% of that was generated through internal cash flow or other non-debt means, domestic credit would simply not grow as much, especially given that 80% of credit in China is extended to the corporate sector.

There are a few issues with that argument. Firstly, the size of the Government's debt is vastly understated. Not included in the public debt figures are the liabilities of the local governments, which the Ministry of Finance estimated at \$680bn as of the end of 2008. In addition to that, a large part of the loans extended this year (estimated at \$350bn) went to finance public infrastructure projects guaranteed by local governments. Furthermore, when the Chinese government bailed out its banking system in 2003, it set up Asset Management Companies that issued bonds to the banks at par for the non-performing loans that were transferred to them. These bonds, worth about \$260bn, are explicitly guaranteed by the Ministry of Finance and the Central Bank and sit on the balance sheets of the big four banks. The Chinese government also explicitly guarantees \$400bn worth of debt of the three "policy banks". In total, these off-balance sheet liabilities are equal to \$1.7tn, which would bring China's public debt to GDP ratio up to 62%, a level that is comparable to the Western European average.

Finally there is also the issue of the aforementioned "hot money", the cumulative sum of which has since 2007 added up to about \$500bn according to our calculations. "Hot money" can leave the country and indeed in 2009 has done so, and as such should not be counted as a part of reserves that can be "spent".

This latter point raises a bigger issue: how much of its central bank's reserves can a country actually "spend"? Since theoretically reserves are needed to satisfy claims for the conversion of local currency into foreign exchange, as well as the transfer of foreign exchange that was acquired as a part of a liability, we have to look at the ratio of reserves to the sum of local money and gross external debt. M2 monetary aggregate in China is \$8.4tn (which is higher than M2 of \$8.3tn in the US) and it is currently growing at 28%. China's gross external debt was \$374bn as at end of 2008, which in Emerging Market space is second only to Russia in size. Compared to a sample of Emerging Markets, China's reserves in relation to its liabilities are not that spectacular (chart 8), so in that sense China is technically not in a position to "spend" its reserves.



Source: PBoC, Pivot

Source: World Bank, BIS, Central Banks, Bloomberg, Pivot

*Reserve coverage ratio is the ratio of international reserves to the sum of Gross External Debt and Monetary Aggregate (M2)

To conclude, credit growth in China has reached critical levels and its effectiveness at boosting growth is falling. External inflows into China in the past few years are a part of the "global imbalances" that are currently being cured. These inflows are not going to fuel further capex. Finally, China has significant off-balance sheet liabilities and cannot just "spend" its reserves on capex without undermining its external position.

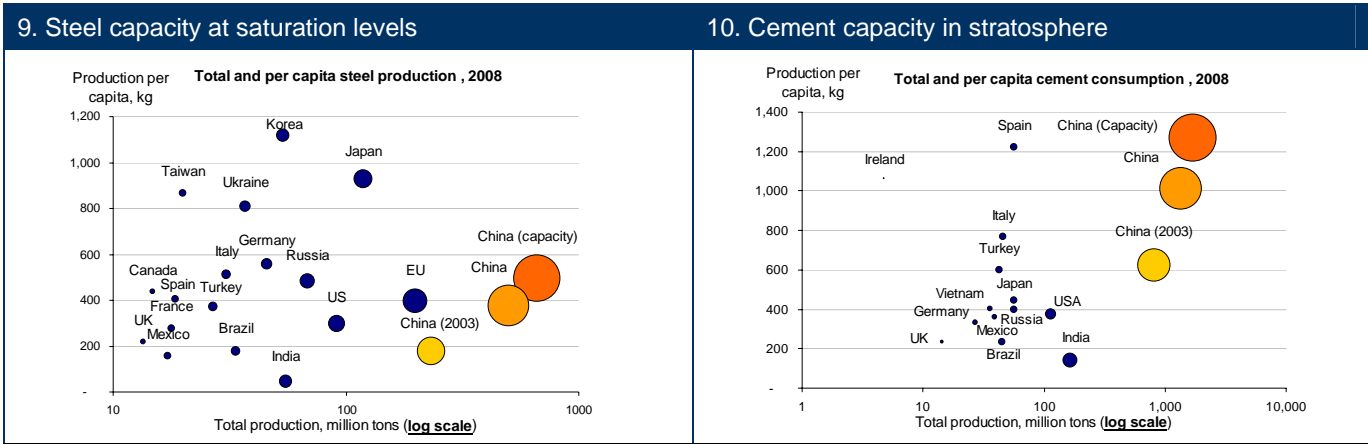
Permanent Reduction in Capital Spending Activity

As the dust settles, we believe China will enter a phase of permanently reduced capital spending activity, whereby consumption will become the upper boundary of growth. The deteriorating ICOR ratio discussed above clearly demonstrates that China is running out of easy ways to boost growth through investment. Below we have reviewed the three major destinations for capital spending in the recent years: manufacturing, real estate and infrastructure. Our analysis demonstrates that China is already a country with ample manufacturing capacity and an increasingly well-developed infrastructure, which does not support the notion of significant pent-up investment needs in China. Consequently further expansion will not have nearly as much impact on growth as in the past.

Manufacturing capacity at developed country levels

While China is recognised as the dominant global producer of various light industrial products including toys, apparel and consumer electronics, it is still believed that there is significant scope for expansion of other manufacturing industries. However, our analysis shows that China’s manufacturing base is increasingly mature, and that there are few areas with an obvious need for capacity expansion.

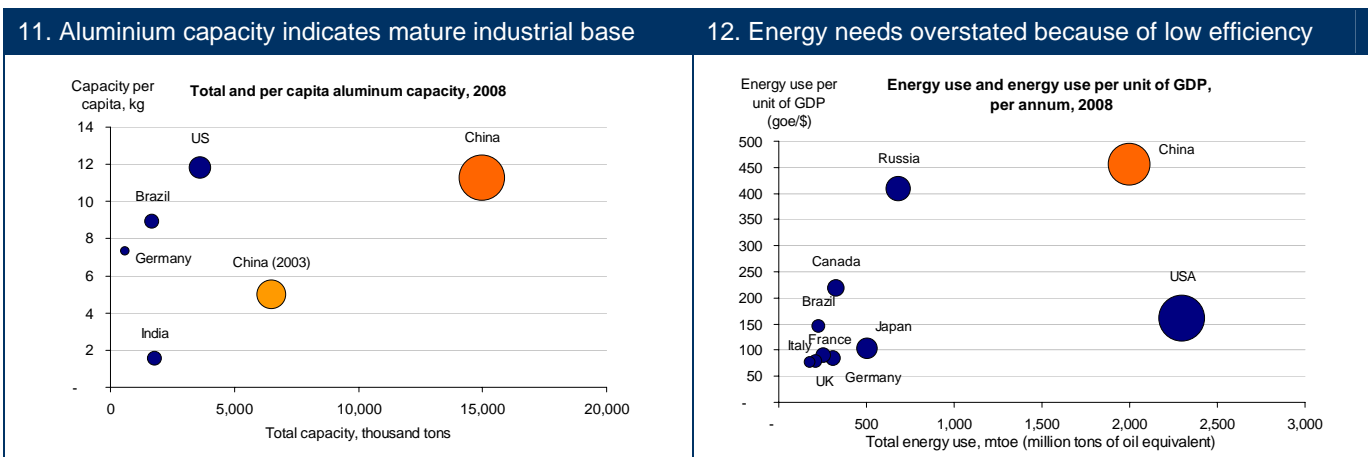
As an example, China currently produces 500mn tons of steel, more than EU, Japan, US and Russia combined (chart 9). According to the Ministry of Industry and Information Technology, China has capacity to produce 660mn tonnes per year, meaning that idle capacity in China is about the size of capacity for Japan and South Korea combined. In addition, there are 60mn tonnes of steel capacity currently under construction. Perhaps even more striking is the fact that China’s per capita production of steel is approximately equal to the EU average and higher than the US. The only major steel producing countries with significantly higher per capita capacity than China are highly specialized exporters of steel or steel intensive goods (Japan and Korea). If, for instance, China produced the same amount of steel per capita as Japan, it would reach roughly 1.2bn tonnes per year, not much different to the worldwide production of 1.3bn in 2008.



Source: World Steel Association, UN, Pivot

Source: US Geological Survey, UN, Pivot

Cement provides an even more vivid illustration of the scale that Chinese manufacturing has already reached (chart 10). At 1.35bn tonnes, China consumes more cement than the rest of the world combined. China’s estimated spare capacity (about 340mn tonnes) is more than the consumption in India, USA and Japan combined. After more than doubling its capacity from 2003, China in 2008 consumed about the same amount of cement per capita as the two countries with the most egregious housing bubbles: Ireland and Spain.



Source: US Geological Survey, UN, Pivot

Source: British Petroleum, IMF, Pivot

This pattern also extends to industrial products whose usage is typically associated with higher GDP per capita levels, like aluminium, where China accounts for more than a third of the world’s capacity and production. Interestingly, China has the same per capita capacity as the USA, a country with a GDP per capita level that is eight times higher (chart 11). Out of China’s 15mn tons of capacity more than 1.5mn tons are idle, which is just about the same level as

the total aluminium capacity of Brazil or India. China's position as the world's largest aluminium producer is all the more astonishing given the lack of surplus cheap energy typical of specialized aluminium exporting nations (e.g. Iceland, Canada or Russia).

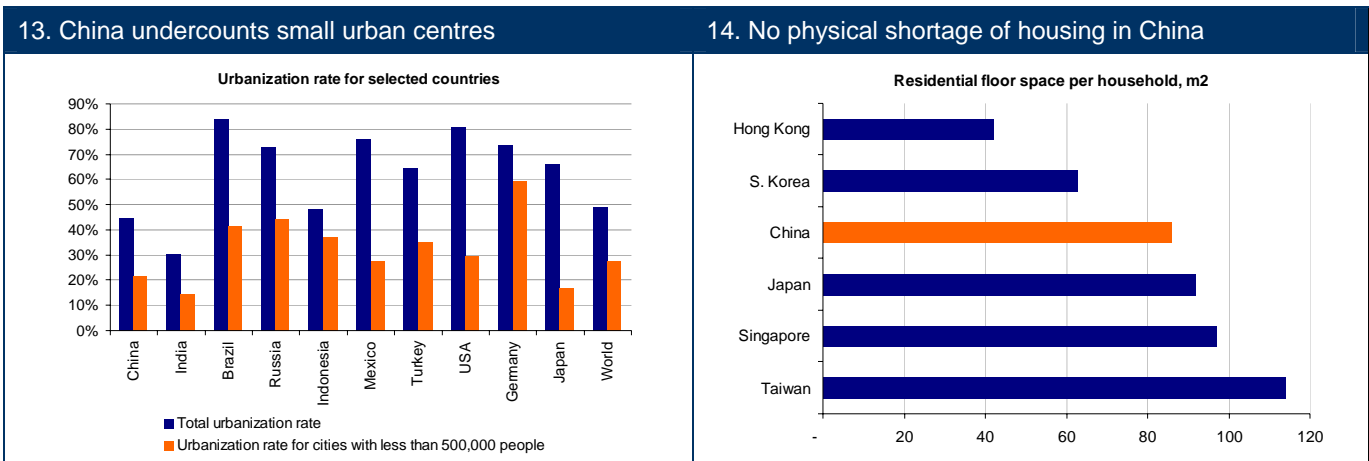
China is also the world's second largest and unfortunately also one of the least efficient consumers of energy: per unit of GDP China consumes close to six times more energy than Italy, and three times more than the USA (chart 12). Heavy industry is notoriously inefficient with China's steel makers using on average 20%, cement manufacturers 45% and ethylene producers 70% more energy per ton of output than producers elsewhere. The reasons for such inefficiencies are manifold, but are primarily related to the way energy prices are set in China. Companies, and especially provincial SOEs, receive numerous breaks and subsidies for electricity consumption. These inefficiencies have probably also led to an overestimation of future power generation and energy needs, another important area of capital spending in recent years.

Real estate - the urbanisation myth

Urbanisation is perhaps the most quoted fundamental trend that should drive China's growth for the next few decades. At a reported 45%, China's urbanisation rate is low not only compared to the rates of 70-80% for developed countries, but also to the world average of 50%. Since an increase of 10% in China's urbanisation rate means that roughly 130mn people would need to move into cities, this is obviously a very powerful argument in favour of continued high growth in Chinese construction activity. For example, if China was to reach the urbanisation rate of Russia (73%) in the next 40 years, it would need to add a city the size of New York every year.

However, as is very often the case with such comparisons, numbers are not what they seem. China's definition of an urban centre includes, amongst other things, population density of above 1,500 people per square kilometre. By that definition Western cities like Houston (2.2m people with density of 1,375/km2) or Brisbane (1.9 m people with density of 918/km2) could technically not be counted as cities. Back in China, a lot of the so-called "villages" and "townships" are in fact highly industrialised. Qiaotou, home to 64,000 people, produces 60% of the world's buttons and 70% of its zippers. Songxia with 110,000 people is the umbrella capital of the world: it produces 500mn umbrellas per year. Bordering on the edge of surreal is the story³ in the Wall Street Journal about the "village" of Shaliuhe at the outskirts of the city of Tangshan where a month before the Olympic Games, in order to reduce pollution, 26 inefficient cement factories were dynamited. Workers at the local Dafeng Steel Mill had to take an early vacation.

According to a recent OECD report⁴, "...there are likely many more villages and undesignated towns in China that would in most OECD countries be formally designated as towns, and far more towns, both statutory and undesignated, that would be administratively defined as cities. The scale of China's urbanisation is therefore likely to be considerably understated by official definitions." As early as 1986 a UN study noted that changes to criteria used in China's or India's censuses could increase the world's urbanisation level by several percentage points⁵.



Source: United Nations, Pivot

Source: Various Bureaus of Statistics, Pivot

³ "Beijing considers new curbs as pollution threatens games", Wall Street Journal, July 29, 2008

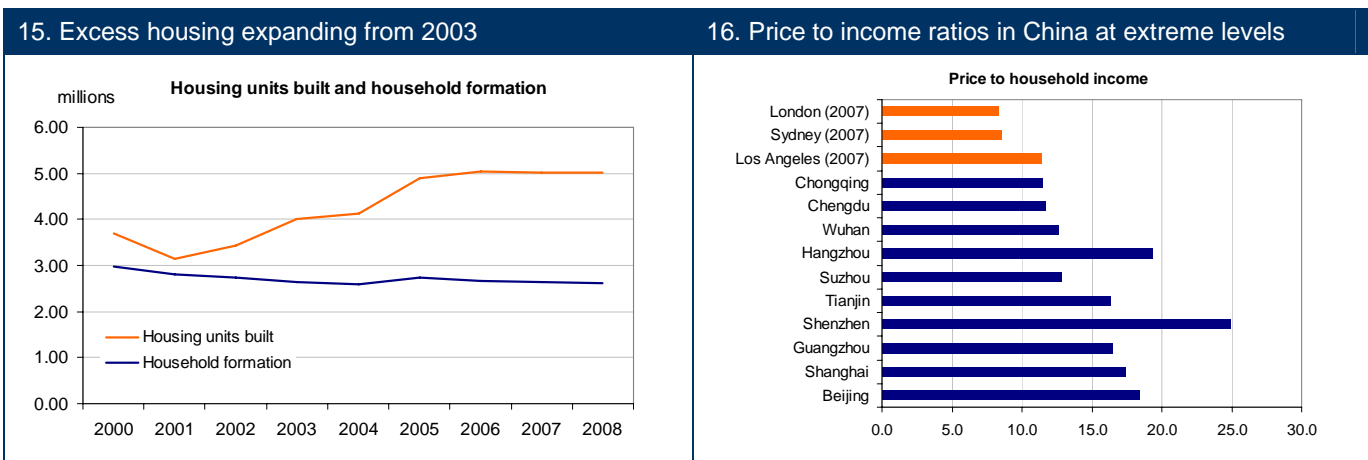
⁴ Kamal-Chaoui, L., E. Leman and Z. Rufeï (2009), "Urban Trends and Policy in China", OECD Regional Development Working Papers, January 2009

⁵ UN "Study on Human Settlements"

China has a very low proportion of population living in urban centres of less than 500,000 people (chart 13). In the same chart, Mexico, USA and Germany count every town of more than 2,500 people as “urban” and consequently have much higher urbanisation rates. We would speculate that by such definition China would be one of the most urbanised countries in the world. Looking at sub 500,000 people urbanisation rates in other countries, overall level of urbanisation in China could be understated as much as 20%, meaning that instead of about 350mn people only 100mn actually would need to be urbanised.

It is widely believed that China’s housing conditions are still very inadequate compared to the developed countries. While this might be the case for certain layers of society there is certainly no physical shortage of residential real estate. Average available residential floor space per household in China is already at high levels compared to other Asian countries. Furthermore, in terms of floor space per household levels, China has overtaken South Korea already in 2003, and since then construction has consistently surpassed household formation. According to the IMF, home ownership levels in China were at 86% in 2005 (compared to 69% in the US in that year), so other than the urbanisation argument we addressed above, demand for housing should not materially depart from household formation.

The lending explosion this year has obviously boosted construction activity and the residential real estate market. Booming property markets have been a boon to regional authorities and SOEs. Urbanisation and construction related projects have not only been an easy way of boosting GDP numbers, but also allowed enrichment of local party members through appropriation and subsequent sales of land and widespread kickbacks from (if not outright ownership of) the construction companies involved. While mass market prices ranging from \$600-1,000/m² in the regions to \$2,000-3,000/m² in major cities may not be absurd in a global context, affordability ratios would indicate we are in uncharted territory. Price to income ratios have reached 15-20 times in major cities and around 10 times in regional cities. This compares with 9 times in London and 12 times in Los Angeles at the peak.



Source: National Bureau of Statistics, Pivot

Source: Nomura, Demographia, Pivot

Infrastructure – growth momentum at its peak

A large part of China’s gigantic stimulus package launched late last year was earmarked for infrastructure investments. Consequently this is also the area where the highest growth rates in capital spending are currently seen. Investors have been comforted by the Chinese government’s commitment to infrastructure spending. However, the issue is not whether the Chinese government has the political will and the financial resources to implement its infrastructure program – to a limit, it has. The issue is whether the current growth rates can be maintained – they cannot. We expect infrastructure growth rates to half in 2010 and turn flat or even negative in 2011.

The distinction between the absolute level of infrastructure spending and its growth rates is crucial from an investor’s point of view. In previous infrastructure-driven investment bubbles the peak in market expectations have tended to coincide with the peak in growth momentum. This is perfectly illustrated by the German reunification experience in 1989-90, where the German government has since duly completed most of the projects envisaged at the time. Nevertheless, most construction and infrastructure-related stocks peaked already in 1990, many of them never to regain those levels again.

While the political factors driving China's infrastructure expansion are understandable, the economic justifications behind many of the projects are increasingly questionable. Below we have attempted to compare the infrastructure levels in China against global benchmarks. Based on that analysis it appears China's infrastructure has already reached an advanced level. That would support the probability not only of a major slowdown in infrastructure growth rates, but also the possibility of permanently lower levels of capital spending.

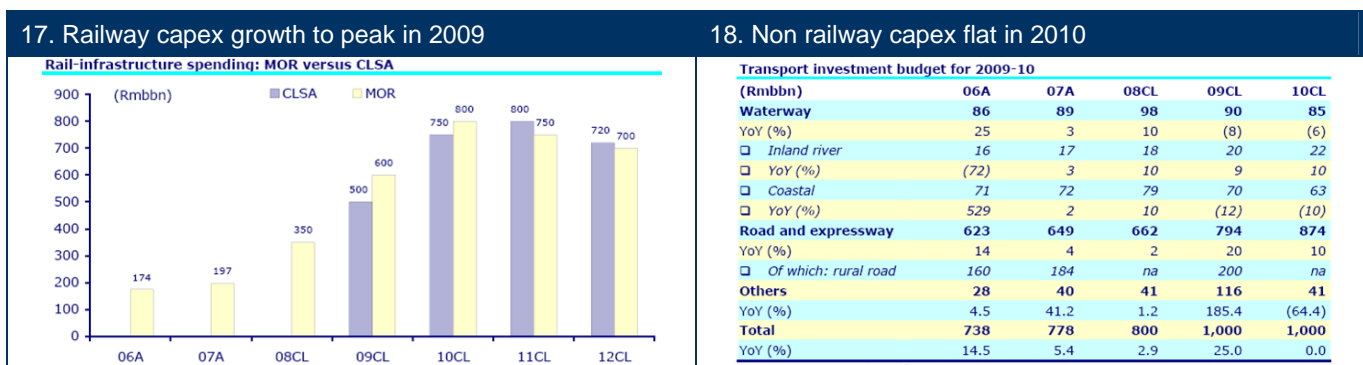
The optimal level of infrastructure in any given country is a function of many variables, including the geographic area, the size and density of population and other factors. One of the most striking facts about China's geography is just how concentrated and compact the population distribution is: 96% of the population lives in just 46% percent of the territory, mostly the southern and eastern provinces. As a comparison in the USA, a country of similar land size, the same proportion of population occupies about 66% of the territory, with dense population along the coasts, and the areas around the Great Lakes. A country like the USA needs longer highways and railways to connect these distributed territories than a country like China. A rough coefficient would be a ratio of the areas of densely populated territories in USA and China (both countries are about 9.6mn square km), which is roughly equal to 70%.

Bearing these differences in mind, it is not evident that China needs significant expansion of its road or bridge infrastructure. Currently, there are 4.2mn kilometres of paved roads in the USA, of which 80,000 km are expressways. China has 2.7mn kilometres of paved roads, of which 60,000 km are expressways, a proportion which is at or above our coefficient of 70%. A more striking fact is that currently there are 250mn vehicles in USA versus 43mn vehicles in China, and China *already* has a comparable size of highways.

Furthering the comparison, in total there are 600,000 bridges in the USA, of which 450,000 are in use. There are currently 500,000 bridges in China, with 15,000 bridges built every year for the past decade. These numbers are especially astonishing given that the USA has 5 times more rivers than China. Bridges are a great example of the kind of promiscuous spending on infrastructure that mars China. In the past, countries like Japan used to be ridiculed for their "bridges to nowhere". China has already dethroned Japan in that category: 6 out of the top 10 longest conventional and a spectacular half of the top 10 longest suspension bridges are in China.

Railway transportation is one area of infrastructure where China arguably has room to improve. China's 80,000km of railway tracks, while putting it into the third position globally (after the USA at 226,000 km and Russia at 84,000 km) could about double on the basis of the effective density ratio with the USA that we used to derive optimal highway length. Coincidentally, it seems precisely what the Chinese government is planning to achieve in just the next 3-4 years. Planned railway infrastructure spending for the years 2009-2012 is projected to be USD 420bn, which would be enough to build 63,000 km of rail network.

The railway network expansion program clearly illustrates the near certainty of slower growth in 2010 (chart 17). Even using government numbers there is a clear peak in growth rates of investment this year. Investments into railway networks are up almost 70% this year, and because it is the largest sub-category, it also pulls overall growth rates in capex. In 2010, this growth rate will drop down to only 30%, while capex for other transportation investments is going to be flat (chart 18). This means that overall capex growth rates will come down appreciably.



Source: Ministry of Railways, CLSA

Source: Ministry of Construction, CLSA

It is impossible not to notice that a lot of infrastructure projects have turned towards sparsely populated inland areas and to what could be called "prestige projects". 37 out of the 44 airports built between 2005 and 2010 have been or will be built in sparsely populated west China. The Qinghai-Tibet line, the highest railway in the world, and the Shanghai Maglev, the only commercial maglev in the world are both good examples of past politically-motivated

projects that boosted the country's prestige, but plans to expand bullet train network to remote provinces like Yunnan and Gansu fall squarely into that category. Waste and corruption go side by side with the mega infrastructure projects financed by easy loans. For an anecdotal example we refer to a Forbes story that mentions a modern 2.9km elevated highway torn down in Hunan and a bridge in Sichuan that was finally demolished after 380kg of dynamite failed to topple it all in order to rebuild them so that the stimulus money could be spent⁶.

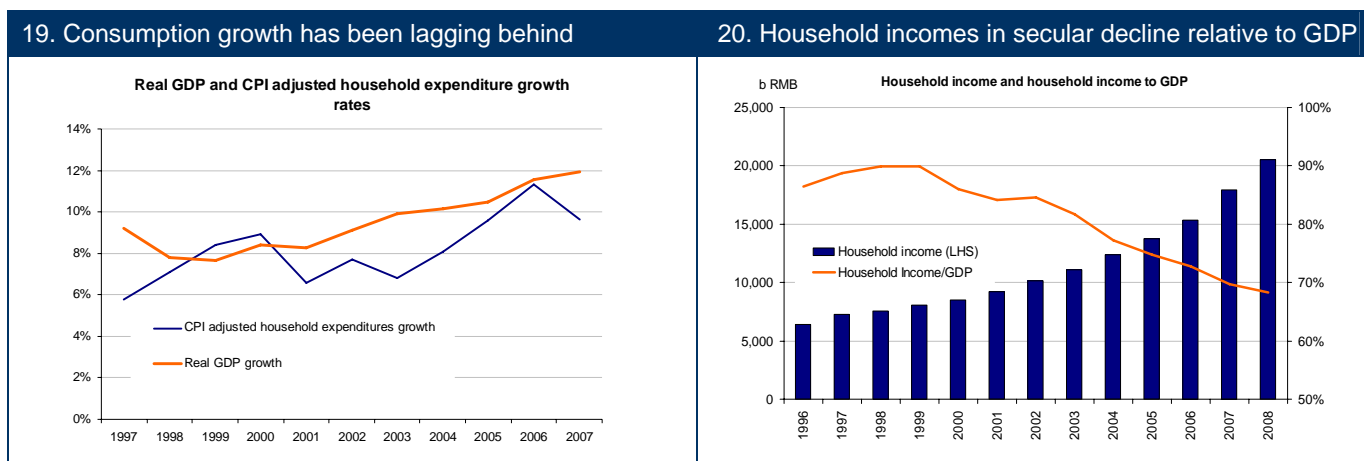
To sum up, China is already at a very advanced stage of industrialisation even when measured on a per capita basis, so room for further capacity expansion is limited. Urbanisation is a driver that is vastly overstated, as China is much more urbanised than is reflected in statistics, so there is no "explosive" pent-up demand for residential construction and all that it entails. China's infrastructure is also relatively well-developed and the expansion in the areas that still have room to grow was fast-forwarded by the stimulus implying that capex growth rates will already peak out this year. Sectoral analysis of investment in China confirms our initial conclusion that effectiveness of capex at boosting growth is diminishing and so investment will cease to be the dominant driver of future China's growth.

Consumption Growth Cannot "Replace" the Investment Boom

In the best-case scenario emphasised by China bulls, private consumption will smoothly overtake investment as the growth engine so that there is no pullback in the overall growth rates. Here, we will start with a very simple fact that private consumption in China accounts for about a third of GDP. As we discussed previously, after a bumper year for credit and investment activity, it is going to be hard for investments to continue growing at 30% in 2010. Even if we assume optimistic investment growth rates of 10% for 2010 and 0% for 2011, leaving the trade balance where it is now, private consumption would have to grow at an average real rate of 20-30% for the next two years for overall GDP real growth levels to hit the magic 10%.

On a conceptual level, consumption is one of the most stable components of any country's national accounts. Even in post-war US, real private consumption very rarely exceeded 10%, with the highest rolling 10-year average close to 5% (1952-1962). Likewise, in a war devastated un-urbanised and demographically booming Japan, real consumption growth peaked at 12% in 1961. The average for the 1970s was a tamer 6%. Pundits calling for 20-30% growth rates in Chinese private consumption should dust their economic textbooks.

This is also supported by China's data. Real growth in private consumption, approximated as CPI adjusted household expenditures, was almost always lower than the overall growth of the economy. Average real consumption growth rate averaged 8.2%, a full 1.3% lower than the real GDP growth rate in 1997-2007. This means that private consumption would have to grow at anywhere between 3 to 4 times faster than in the past decade to compensate for the imminent retraction in investment.



Source: National Bureau of Statistics, Pivot

Source: National Bureau of Statistics, Pivot

There are a few reasons why these expectations are unrealistic. Firstly, consumption does not exist in a vacuum, and in case of an investment slowdown and absence of a significant pick-up in exports, consumption is probably going to revert to pre-2005 averages. Even with the broad-based government household subsidies private consumption grew 10% in H1 2009 (subsidy-fuelled car sales are up 25% year to date). Secondly, one of the fundamental reasons why

⁶ "Whither China's Construction Boom?", Forbes, May 21, 2009

consumption will not all of a sudden “explode” on the upside is the same reason why consumption has lagged behind other categories of GDP for the past decade. As a ratio of GDP, household income has declined by 20% from 1999 to 2008 (see chart 20). This change is very logical given China’s shift towards heavy industries, which are more capital and less labour intensive.

Another big reason to be sceptical about the near-term prospects of consumption growth is the state of the labour market. The headline unemployment rate of 4.3% only takes into account urban people registered as unemployed and is a poor reflection of reality. For example, the Chinese Academy of Social Sciences performed a study in mid 2008 that estimated the urban unemployment rate to be 9.4%, more than double the official headline. Then there are 140-160mn migrant workers, as well as unemployed people in rural areas. Estimating the true level of unemployment is practically impossible and politically undesirable, but even the National Bureau of Statistics put a number of migrant jobless at 23mn (this would add another 3% to the unemployment rate). Finally, at the very end of the spectrum, there are reports of unofficial surveys conducted by the NBS that estimated total unemployment rates as high as 27%. Almost 1mn graduates from the class of 2008 are still unemployed, and according to surveys about 60% of this year’s 6mn graduates have not found work yet, an indicator that unemployment is a problem for the white collar urban workers as well. It is not surprising then that in the latest PBoC survey of 20,000 households from 50 cities carried out in Q2 2009, a record low 8.6% of the surveyed sample considered their income “adequate” (this is down from 32% in Q1 2007). This is hardly star material for the consumption boom starting in China now.

It is hard to over-emphasize what this shift to consumption-driven economy means for China’s overall growth rates. On a simple mathematical level it means that average growth rates are going to be capped at 7-8%, so that the overall economy grows at 5-6% for the foreseeable future, and probably slowing down even more later on. It also has enormous consequences on what China imports from the rest of the world as it shifts from commodity and capital goods heavy into (most likely locally produced) consumer goods and services driven economy.

Chinese Investment Slowdown a Global Market Event

Considering China’s role as a trailblazer and locomotive for the current global recovery efforts, any signs of a Chinese slowdown would have significant global consequences. Not only would it challenge the notion of emerging markets leading the world economy out of its slump, but it would also raise doubts over the sustainability and effectiveness of the various stimulus efforts under way in other countries.

Given the stakes involved, we can expect the Chinese as well as other governments to introduce further stimulus measures as signs of weakness appear. This may prolong the top, but as discussed in the report, China has reached an impasse in terms of its dependency on capital spending to generate growth. Although the transition from a high growth model dependent on investments to a slower growth model driven by consumption demand can be pushed slightly into the future (at the risk of causing a credit bust), it cannot be avoided.

Based on activity patterns and the timing of the various stimulus efforts we believe that Chinese y-o-y growth will slow down already in Q1 2010 and that the decline should accelerate in Q2 2010. In the absence of significant new stimulus measures we would then expect to see a broadening global slowdown in mid 2010. The real crunch could come in H2 2010, when evidence of a global slowdown converges with increasing pressure to clarify exit strategies from current monetary and fiscal policies.

Although we see a high probability for a slowdown in 2010, the main issue facing investors is when markets will start discounting that slowdown. In this sense we are back to a situation similar to 2006-2007 as the sub-prime and credit booms were approaching their end. In view of the governments’ clear commitment to safeguard the recovery there is certainly a risk of multiple false breakdowns before a top has been reached. Nevertheless, the markets should experience a major growth scare sometime in H1 2010 at the latest.

Anything that is cyclical and dependent on Chinese investment demand would obviously be the most vulnerable to a Chinese growth disappointment. That would include industrial commodities as well as equities and credit of industrial and consumer cyclicals. There would also be a general rotation into more defensive areas taking place across most asset classes. The biggest uncertainty relates to what China means for the debate on deflation versus inflation. In principle, a Chinese slowdown should initially be deflationary, especially given the overcapacity currently building up in various Chinese industries. This should be negative for credit in general and also for most equities. However, depending on how aggressive the policy response will be in China and elsewhere, investors may very well start focussing on the inflationary risks again.