I've always thought that Shirley Yam of the *South China Morning Post* has a great nose for financial risk, and this shows in an article she published last week on mainland real estate. For anyone knowledgeable about the history of financial bubbles and crises, much of the following story (http://www.scmp.com/business/china-business/article/2009586/brick-and-mortar-facade-buries-real-truth-about-chinas) will seem extremely familiar. The point to remember is that what is normally recorded as business operations in activities described in the article results in fixed payments that are inversely correlated with underlying conditions, and so is really no
different than debt in the way it will begin to generate financial distress costs when the economy turns, goosing economic activity on the way up while exacerbating the contraction when it comes.

Yam discusses how building contractors must pay developers to build real estate projects and write about one such contractor, whom she calls “George”:

*This is how the system works. Say an apartment building costs 1 billion yuan to build. George will provide the developer 300 million yuan as “facilitation money” at an interest rate of about 4 per cent to win the job. The latter will then give George 80 million yuan for the services rendered.*

*George, however, does not have any shareholding in the project, whatsoever to cover his back. Neither is he assured that the facilitation money would not end up in the stock market. All George can do is pray and hope that the apartments sell well and he gets his money back with interest plus the construction costs. Despite the risk, there has been no dearth of interested players. As George puts it, it has been getting worse. His state-owned rivals are now offering “facilitation money” of up to 50 or even 60 per cent of the construction cost. Some are even pitching in with zero interest, while others are promising to help in eventual sales.*

She goes on to talk about the desperate competition among developers to get new projects, and what is driving the record beating real estate prices:

*The obvious question that comes to the mind is why are developers willing to pay record amounts to own a piece of land, or as some suggest pay more for the flour (land) than the bread (flat). But then the land parcels are not really*
meant to be the flour for the bread. A good case is China Cinda Asset Management, which has invested more than 61 billion yuan in property during the past 12 months.

Among its acquisitions was a piece of land in suburban Beijing that was so expensive that will break-even only if the property prices are four times higher. But Cinda has piles of liquidity to splash about. Its debt to equity ratio rose by a third to 368 per cent in 2015 and it paid just a quarter of the loan rate of its private rivals. For Cinda property seemed the best bet. After all, the real economy was not going anywhere and the stock market was twisting and turning. On the other hand, property investment promised huge returns and was more self-fulfilling in nature. The record-breaking land prices support the property market and therefore the repayment of the multi-billion yuan of loans via shadow banking that Cinda and other state firms are loaded with. So overpayment seemed perfectly okay.

Keep all of this in mind when thinking about stepped-up efforts to clean up China’s banking system. There has been a flurry of reports recently about steps taken to clean up the banking system, but from an economy-wide point of view, it is not clear that any reduction in debt burdens for the banking system actually reflect a reduction in the debt burden for the economy as a whole, and anyway new kinds of debt are growing quickly enough that even if it did, the country's debt burden is almost certainly rising.

Here (http://www.bloomberg.com/news/articles/2016-08-11/ubs-china-s-already-started-bailing-out-its-banks) is Bloomberg on a UBS report two weeks ago on the topic of bank clean-ups:
The good news is that the capital raises have begun. The bad news is that they need to continue. An analysis of 765 banks in China by UBS Group AG shows that efforts to clean up the country’s debt-ridden financial system (http://www.bloomberg.com/news/articles/2016-06-02/china-toxic-debt-solution-has-one-big-problem-as-banks-buy-npls) are well underway, with as much as 1.8 trillion yuan ($271 billion) of impaired loans shed between 2013 and 2015, and 620 billion yuan of capital raised in the same period. But the work is far from over, as to reach a more sustainable debt ratio the Chinese banking sector will still require up to 2 trillion yuan of additional capital as well as the disposal of 4.5 trillion yuan worth of bad loans, according to the Swiss bank’s estimates.

I think a lot of this misses the point, and not just because there is a lot more debt out there than we think. I think the optimism with which this news has been received reflects a failure to think systemically about the Chinese economy. The fact that bad loans overwhelm the capital of the banking system should not blind us to the fact that China’s problem is excessive debt in the economy, and not a banking system that risks collapse because of insolvency. The only “solution” to excessive debt within the economy is to allocate the costs of that debt, and not to transfer it from one entity to another.

The recapitalization of the banks is nice, in other words, but it is hardly necessary if we believe, and most of us do, that the banks are effectively guaranteed by the local governments and ultimately the central government, and that depositors have a limited ability to withdraw their deposits from the banking system. “Cleaning up the banks” is what you need to do when lending incentives are driven primarily by market considerations, because significant amounts of bad loans substantially change the way banks operate, and almost always to the detriment of the real economy.
Debt matters, not merely its location

Cleaning up the banks is much less important, however, when lending incentives are driven mainly by policy and there is widespread moral hazard. What matters is the impact of overall debt on Beijing’s ability to implement policies that work as expected, and its impact in generating economy-wide financial distress costs.

The key in China, in other words, is not whether the banks have been cleaned up. It is how the losses are going to be allocated, and that remains no clearer today than it ever has been. Until the losses are allocated, they will simply show up in one form or the other of government debt, either on bank balance sheets as a contingent liability for the government or as a direct liability of the government. Because debt itself is constraining growth – I expect it to force economic activity to drop to less than half current levels well before the end of this decade – the debt must be written down or paid down and its costs must be allocated, the sooner the better for China.

But that is of course easier said than done. I have already discussed (http://carnegieendowment.org/2016/01/25/will-china-s-new-supply-side-reforms-help-china-pub-62601) many times why the losses should not be allocated to the household sector or the SME sector. Allocating it to the former worsens the imbalances and makes economic activity more dependent than ever on increases in investment, to which China will soon reach limits. Allocating it to the latter would undermine the only really efficient part of the economy and so disrupt any chance China has of long-term growth. The losses also cannot be allocated to the external sector because it isn’t large enough and it will not be allocated to the central government as long as the leadership
believes it necessary to continue centralizing power. In the end the losses can only be allocated to local governments, but that has proven politically impossible.

I warn my clients that while all the excited chatter about reformist froth in the formal and informal banking sectors may seem like progress is being made or not made, and of course will have some impact on the stock selection process, in the end they should not take their eye off the ball. China’s problem is that to keep unemployment low the government must rely on a rising debt burden powered by surging non-productive investment, and the only way to constrain the growth in the debt burden and keep unemployment from soaring is to allocate the debt-servicing and adjustments costs to whichever sector of the economy is able to bear it with the least damage to China’s longer-term economic prospects.

This process is not being helped by a slowdown in the growth in household income. A July article (http://www.bloomberg.com/news/articles/2016-07-19/china-s-consumer-boom-risks-slowing-as-income-gains-moderate) in Bloomberg explains how, and presents a graph that shows growth in cumulative disposable income per capita dropping quarter by quarter over a two year period from 8.5% to 6.5% as GDP growth drops over that period from 7.5% to 6.7%:

*Chinese consumers, whose spending helped underpin the first-half expansion this year, may not be able to deliver a repeat performance in the second as income growth slows. Household income growth slumped to 6.5 percent in the first six months from 7.6 percent a year earlier, data released Friday showed. Headwinds on consumer spending may increase as officials signal they will step in to curb pay gains to keep manufacturing competitive with rival nations that have cheaper production costs.*
As shoppers become an increasingly crucial growth driver, any erosion of their strength would weaken the ability for the consumer-led expansion to offset weakness in exports and investment. That threatens the government goal of raising gross domestic product by 6.5 percent a year through 2020 and slow the rebalancing away from factory-led growth.

The conclusion is inexorable. Beijing must find a way of generating domestic demand without causing China’s debt burden to surge, which basically means it must rebalance the economy with much faster household income growth than it has managed in the recent past, and it must begin aggressively writing down overvalued assets and bad debt to the tune of as much as 25-50% of GDP without causing financial distress costs to soar. Everything else is just froth.

**Can China “grow out” of its debt burden?**

After many years of assuring the leadership that the debt burden was easy to manage and that reforms would resolve the problem of growth, economic policy advisors have still not been able to prevent the balance sheet from deterioration. They continue to promise that with the right combination of efficiency-enhancing reforms – and there seems to be a dispute among one group arguing for “demand-side” reforms and another for “supply-side” reforms – Chinese productivity will rise by enough to outpace the growth in debt.

But this will almost certainly not happen. Simple arithmetic indicates that the amount by which productivity must rise to resolve debt servicing is implausibly large and requires an unprecedented amount of efficiency enhancement. In the newsletter I sent out to clients on June 28, I calculated that if we believe debt is equal to 240% of GDP, and is growing at 15-16% annually, and that
debt-servicing capacity is growing at the same speed as GDP (6.5-7.0%), for China to reach the point at which debt-servicing costs rise in line with debt-servicing capacity Beijing’s reforms must deliver an improvement in productivity that either:

1. Causes each unit of new debt to generate more than 5-7 times as much GDP growth as it does now, or
2. Causes all of the assets backed by the total stock of debt (which we assume to be equal to 240% of GDP) to generate 25-35% more GDP growth than they do now.

If we change our very conservative assumptions so that debt is equal to 280% of GDP, and is growing at 20% annually, and that debt-servicing capacity is growing at half the rate of GDP (3.0-3.5%, which I think is probably still too high), for China to reach the point at which debt-servicing costs rise in line with debt-servicing capacity Beijing’s reforms must deliver an improvement in productivity that either:

1. Causes each unit of new debt to generate 18 times as much GDP growth as it is doing now, or
2. Causes all assets backed by the total stock of debt (280% of GDP) to generate 50% more GDP growth than they do now.

These levels of productivity enhancement do not seem very plausible to me and I do not think it is possible for reforms to improve efficiency by nearly enough to solve the country’s debt problem. What is worse, the historical precedents indicate that while many debt-burdened countries have attempted the same or similar efficiency-enhancing reform strategies, there does not seem to be any case in which this strategy has actually worked. No highly-
indebted country, in other words, has been able to grow its way out of its debt burden until after it has explicitly or implicitly paid down or written down the debt. There are different ways in which this history has been exemplified:

- In some cases, as in Mexico in 1989, after many years of struggling unsuccessfully to implement productivity-enhancing reforms and suffering from low growth and economic stagnation, governments finally obtained explicit write-downs of the debt when the debt was restructured with partial debt forgiveness (35% of the nominal amount, in the case of Mexico). In this case the cost of the write-down was allocated to foreign creditors, although during the many years of stagnation workers paid for financial distress costs through unemployment and suppressed wage growth.

- In some cases governments never restructured their debt, and so never explicitly obtained debt forgiveness, but they did monetize the debt and so obtained implicit debt forgiveness through high levels of inflation (as was the case of Germany after 1919) or through financial repression (as was the case of China’s banking crisis at the end of the 1990s), or both (as was the case of the UK after 1945), in which the cost of writing down the debt was mostly absorbed by household savers. This last point is important because it creates a great deal of confusion among analysts who think that China can resolve its debt problem the same way it did fifteen years ago. China effectively forced the debt-servicing cost onto household savers mostly during the first decade of this century. With nominal GDP growth ranging between 16% and 20% and a GDP deflator between 8% and 10%, lending rates should have probably been at least 13-15%, but instead they were set much lower, between 6% and 7%, and deposit rates even lower, between 2.5% and 3.5%. Negative real lending rates effectively granted insolvent borrowers debt forgiveness every year equal to at least 6-9 percentage points for a decade or longer. Depositors
effectively paid for the full amount of the debt write-down as well as to recapitalize the banks. Forcing the cost of the write-down onto household savers worsened China’s imbalances significantly, however. The household consumption share of GDP fell from a very low 46% in 2000 to an astonishing 35% in 2010. This was not a coincidence.

- In other cases in which governments never defaulted or restructured their debt, and so never explicitly obtained debt forgiveness, they implicitly wrote down the debt not by monetizing it but by means that involved allocating the costs to the wealthy in the form of expropriation or to workers in the form of wage suppression. Romania in the 1980s is an especially vivid case of the latter, and the way the Ceausescu reign ended suggests why this isn’t a model to be repeated.

- Finally in other cases, the most obvious example being Japan after 1990 and now parts of Europe after the 2009 financial crisis, governments never explicitly or implicitly wrote down the debt, and have instead spent many unsuccessful years attempting to implement reforms that will allow them to grow their ways out of their debt burdens. They have failed so far to do so, and after so many years it is hard to see how they will succeed.

Resolving the debt burden

Debt must be paid down or written down explicitly, or it will be implicitly amortized over time in an unplanned way and at great cost to the economy. A fundamental part of Beijing’s reform strategy, in other words, must be to reduce the debt burden as quickly as it is politically able in order to minimize the economic costs of economic adjustment and to allow for the most rapid economic recuperation. Reducing the debt burden means selecting the sectors of economy that are best able politically or economically to absorb the cost, and forcing them to absorb the cost of the debt write-down, however reluctant they are to do so.
We typically think of the economy as consisting of four sectors: the external sector, households, businesses, and the government. In China however it is more practical to subdivide these further into the following:

- **Creditors.** Creditors are forced to absorb the losses associated with writing down the debt when the borrower defaults on its debt and restructures it with a principle or interest reduction. Much of China’s debt burden has been extended through the banking sector, however, and because the debt that must be written down exceeds the banking industry’s capital base, ultimately the cost will be passed on to some other economic sector – for example Chinese households ultimately absorbed the cost of the banking sector losses generated in the late 1990s.

- **The external sector.** To pass on costs to foreigners requires that they have significantly larger exposure to China than they actually do, and would also probably require defaulting on external debt, a path Beijing is unlikely to choose to follow.

- **Ordinary households.** Most banking crises, like the recent US and European crises and the Chinese banking crisis at the end of the 1990s, are resolved by hidden transfer mechanisms that pass the cost of writing down debt to households. China today however must increase household wealth, not reduce it, if consumption is to rise fast enough to allow investment to decelerate, which means ordinary households cannot be allowed to absorb the cost.

- **Wealthy households.** Given high levels of income inequality, and the low propensity to consume of the wealthy, forcing them to absorb the costs of writing down debt – in the form of highly progressive income taxes, for example – is likely to be among the less costly ways economically for Beijing to pass on the costs of paying down debt. As their income or wealth is reduced, the wealthy are likely to convert most of that reduction
into lower savings and very little of it into lower consumption, thus minimizing its adverse impact on domestic demand.

- **Small and medium enterprises.** Chinese SMEs are among the most efficient economic entities in China and are likely to be the main source of innovation and value creation in the future. Their long-term success is vital to China’s long-term growth. Like ordinary households they should be protected from absorbing the costs of Beijing’s debt-management policies.

- **Local and provincial governments.** These have amassed a considerable amount of assets whose liquidation would most efficiently absorb debt write-down costs and would entail the lowest medium and long-term economic costs, although not perhaps the lowest political costs. As their assets are liquidated, total Chinese savings will decline and Chinese consumption will remain largely unchanged, thus minimizing the adverse impact on domestic demand.

- **The central government.** Beijing too could pay for the cost of writing down debt by liquidating central government assets, although this may conflict with other economic policy objectives, including overcoming vested-interest opposition to the reforms.

These are the major sectors of the Chinese economy within which the cost of debt-management policies can be absorbed, and although there is likely to be a great deal of reluctance on their parts, the most efficient way economically is for the costs to be underwritten by the liquidation of local and provincial government assets and, perhaps to a lesser extent, by taxes on very wealthy households. It is important to recognize that if debt-servicing costs are not covered by the higher productivity generated by the relevant investment, the process by which the debt will be implicitly or explicitly written down and
allocated will necessarily happen anyway, and according to only a limited number of ways. The only question is the extent to which it is directed by Beijing:

1. Chinese borrowers can default or otherwise restructure debt such that the cost of the write-down is allocated to creditors in the form of a haircut on the debt. Because the creditors for the most part are the banks, which are insufficiently capitalized to bear the full brunt of the losses, these losses will still have to be allocated to some sector of the economy.

2. If the regulators avoid defaults, there are three further potential outcomes. First, the authorities can implement efficiency-enhancing reforms that cause economic productivity to surge to the point at which excess debt-servicing costs can be covered by the additional productivity.

3. Second, the authorities can implement reforms that specifically assign excess debt-servicing costs to targeted economic sectors in order to minimize the economic or political costs. For example it can force local governments to liquidate assets, or it can use taxes to appropriate the wealth of the economic elite, the proceeds of which are then used to absorb excess debt-servicing costs.

4. Finally, if the authorities do not move quickly enough, excess debt-servicing costs, along with financial distress costs, will be allocated to those least able to protect their interests once debt-capacity limits are reached. There are many ways these costs can be allocated in an unplanned way. One way, and among the most likely, is if the debt is effectively monetized by continuous rolling-over of principle and accommodative monetary policy. While part of the cost may be paid out of an increase in productivity, this is likely to be a small part and can only happen to the extent that unemployment is already very high and the costs of increased production are low. Otherwise eventually either financial repression or unexpected inflation (with the former more likely
than the latter because of the structure of debt in China) will force most of the costs onto household savers and others who are long nominal monetary assets, while unemployment and real wage suppression will force additional financial distress costs onto workers.[1]

Put simply, to the extent that Beijing refuses to follow the first path, and cannot follow the second, it must choose the third path or eventually the fourth will be imposed.

[1] Contrary to what many believe, the PBoC cannot simply monetize the debt. There seems however to be a huge amount of confusion about why it cannot. The standard objection (https://medium.com/@ericbeebo/china-s-banks-and-bad-debt-where-from-here-23bcfd616410#.9f8y4dign) is that “China’s ability to monetize this debt will only severely hurt households if it results in a hyperinflation.” This is simply not true, and reflects a misunderstanding of economies whose financial systems are structured in a very different way that of most Western countries, especially the US. See (http://carnegieendowment.org/2015/10/19/thin-air-s-money-isn-t-created-out-of-thin-air-pub-61679) Michael Pettis, “Thin Air’s Money Isn’t Created Out of Thin Air”, Carnegie Endowment for International Peace, October 19, 2015