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Chi on China

The Beginning of the End of Excess Capacity

If you do not change direction, you may end up where you are heading.

Lao Zi

SUMMARY

- Contrary to conventional wisdom, Beijing's policy is not the primary force for cutting excess capacity. The central government does not have firm control of the local authorities, as many observers have assumed, that it could just order them to shut down firms and factories as it wants.
- Arguably, market forces are the primary driver, without which government policies alone will not get reforms too far. Crucially, if government policies are pushing in the opposite direction from market forces, its reform effort is unlikely to be successful.
- Initial evidence shows that market forces may be aligning with Beijing's policy objectives to cut excess capacity. However, the short-term result may not be a sharp rise in unemployment, as many would expect, but deterioration in household income growth.

Many observers often think that resolving China's excess capacity problem is a matter of government policy and political will. This line of thought ignores the realty that Beijing does not really have firm control of the local governments that it could simply order them to shut down factories.

Over the last three decades, political power in China has been decentralised considerably, with Beijing giving the provincial and municipal governments an increasing amount of autonomy to experiment with economic reforms. They have been granted direct control over resources, such as land, energy, finance and raw materials, and permission to develop local infrastructure. As a result, local government spending accounted for an average 71% of total public expenditure between 2000 and 2014, much bigger than the 46% share in the US.

The good intention backfires

The purpose of decentralisation was to encourage regional competition to achieve efficient gains and high GDP growth. Local party bosses knew that their career paths depended on their region's economic performance and, hence, worked hard to boost growth. This political objective of chasing high growth rates at all cost propelled China to become the world's factory and the second largest economy in the world after the US.

However, decentralisation has led to substantial waste, manifested in a large local government debt (almost 40% of GDP in 2014, which was 2.5 times the size of the central government debt). It has also created a huge rent-seeking mechanism and spurred large scale corruption, with local officials striking deals with businesses by providing preferential treatments in the forms of tax breaks, cheap credit and land sold at below-market prices in return for bribes.

Nevertheless, such arrangements facilitated the entry of hundreds of thousands of private firms into market, adding to production capacity of the gigantic state firms. The party went on for more than 30 years under the old supply-expansion development model, in which economic agents build/invest/produce first to expand supply and create jobs that, in turn, create demand to absorb the supply. The model began to break down when President Xi Jinping took office in 2013 and changed the country's policy objective to achieving growth quality through structural reforms. This means no more swift demand growth to absorb all that excess supply that economy has built up, laying bare the excess capacity problem.

The costs of decentralisation have become enormous obstacles to rein in the local powers such that many central government reform initiatives, including cutting excess capacity, have not trickled down to the local levels. The bad news is that Beijng does not have the effective control to order plant closures. The good news is that market forces may be aligning with policy intention to cut excess capacity. Beijing is now talking about shutting down "zombie" state companies in six over-capacity sectors in iron & steel, coal, cement, aluminium, shipbuilding and flat glasses. It is focusing first on the iron & steel and coal industries by setting three-year targets for production cuts.

The alignment of market forces

In the old growth model, as long as a company made money, no one cared about its inefficiency. For example, when the coal and steel sectors were making money during the housing market boom between 2003 and 2013, complaints about their excess supply problems went unheeded. However, this has changed when coal and steel prices have fallen so low since 2014 and have shown little chance of a sustained recovery anytime soon that made shutting down an economic necessity for many firms. To understand this, let us recall the conditions for a firm to shut down.

A profit-maximising firm will choose to shut down its production when the revenue it receives from the sale of its products cannot cover the variable cost of production. In this situation, the firm will experience a higher loss by continuing to produce.

In the short run, fixed cost (such as machinery, plant etc.) is a sunk cost that must be paid regardless of whether a firm operates, so it should not enter into the shut-down decision-making process. On top of fixed cost is variable cost (such as electricity, salary etc.). If a firm's revenue (R) is equal to or larger than its variable cost (VC), it should choose to continue operating because it makes an "operating profit" (OP = revenue minus variable cost) that helps cover some of its fixed cost (FC). If it shuts down, it forgoes this "operating profit" while it must still pay the fixed cost. However, if revenue is not even enough to cover variable cost (i.e. VC > R), the firm should shut down as carrying on production would add more (variable) cost to the sunk cost. By shutting down, the firm only loses the fixed cost.

That is:

If R ≥ VC, and (R – VC = OP), continuing production => loss = FC – OP
but shutting down => loss = FC
As (FC – OP) < FC, it should continue producing while hoping that things will change for the better.

If R < VC, continuing production => loss = (VC – R) + FC
but shutting down => loss = FC only
As [(VC – R) + FC] > FC, it should shut down to minimise loss.

Although coal and steel prices have been falling since 2010, declining or negative net profits are not necessarily sufficient to force these plants to shut down if their revenues are sufficient to cover their variable costs. To assess this claim, we turn to the accounting definition of operating profit (= revenue less costs of goods sold, labour and day-to-day expenses excluding interest expense and non-recurring items) because of the lack of data for estimating the economic "operating profit".

The shut-down logic by using the accounting operating profit data is the same: As long as the coal and steel plants are running an operating profit, it is rational for them to keep producing even if they are suffering from negative net profit, as long as they expect things to turnaround later. This has been the operating environment sustaining many of these firms for many years. However, prices have fallen so low since 2015 that an increasing number of the firms were not able to cover their variable costs.

Evidence shows that operating profits of the coal and steel industries started falling after 2010 along with coal and steel prices (Chart 1). Meanwhile, the People's Bank of China (PBoC) diffusion index for profitability of the largest 5,000 industrial firms, which we used as a proxy for profitability of the giant coal and steel state companies, took a plunge. The index shows that the percentage of firms surveyed that reported profits. It plunged from 61% in 2010 to 50% in 2015, implying that an increasing number of firms (from 39% in 2010 to 50% in 2015) were reporting losses over the years.

The actual situation for the coal and steel firms were likely worse than the proxy suggests because their capacity utilisation rates had fallen significantly below 80%, the threshold that divides overcapacity and excess capacity (Chart 2). The utilisation rates of the other four excess-capacity sectors imply that they too were likely suffering from operating losses (i.e. with revenues not sufficient to cover variable costs).

Given that commodity prices are unlikely to stage a sustained rebound any time soon, when these firms are suffering operating losses, it is economically rational for them to shut down. Government support has not stopped firms from reacting to changing market conditions. The coal and steel sectors laid off more than 1 million workers between late 2014 and 2015, though such adjustment was still smaller than it would have been if market forces were allowed to operate fully.

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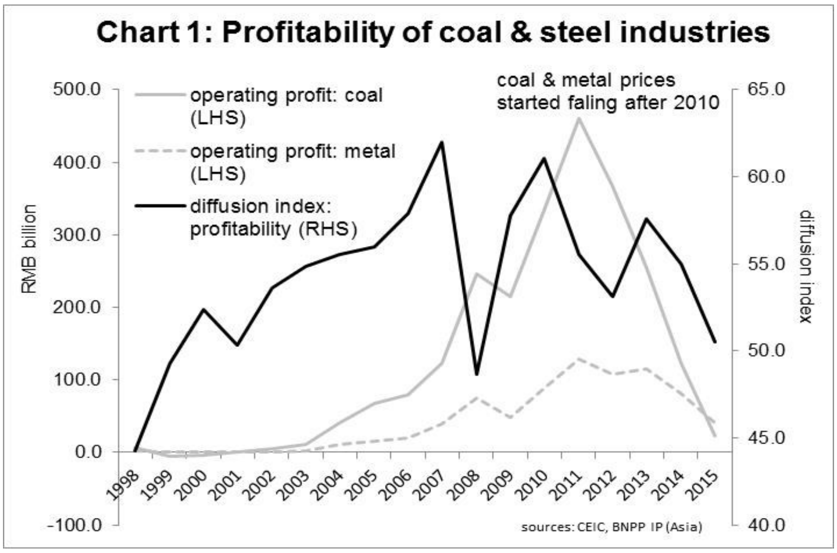
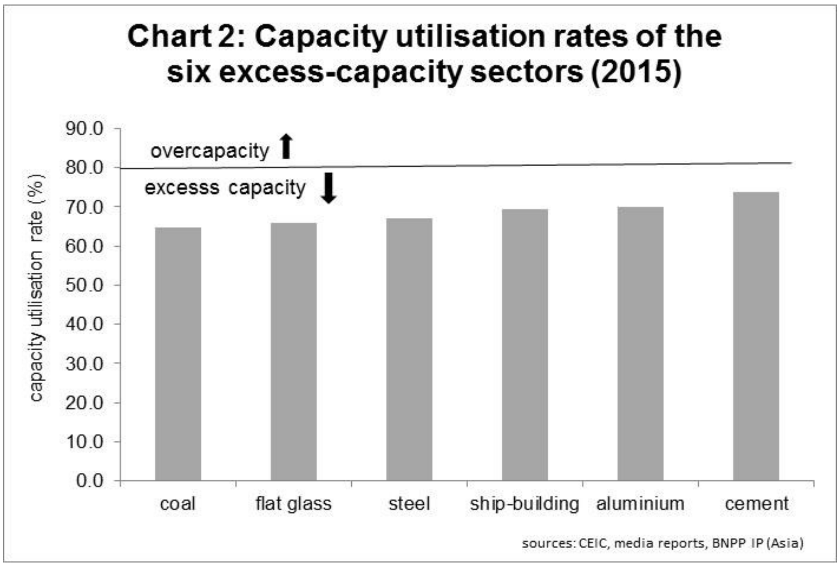




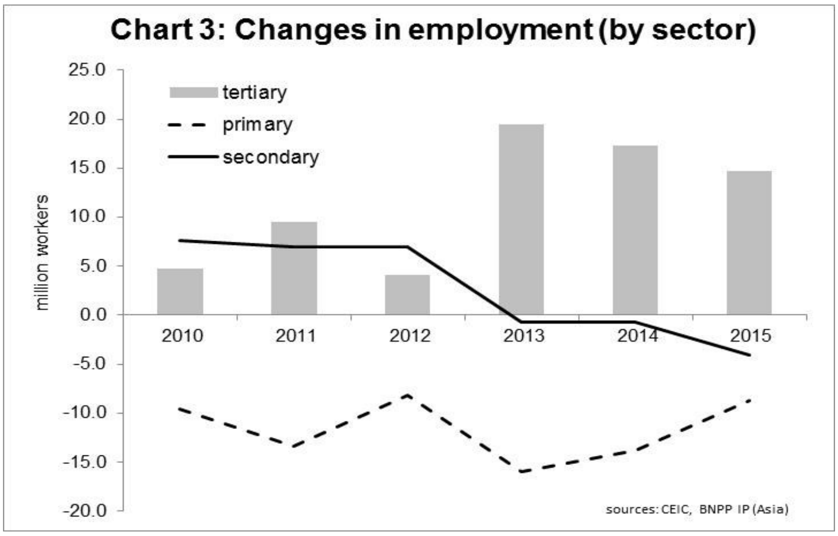
Slaying the zombies

So market forces are pushing at the same direction as government policy for shutdowns. This alignment of market forces with policy should create a powerful force for cleaning up the inefficient state sector, right? Indeed, Beijing has embarked on supply-side reform by trying to break up the cosy arrangements between companies and local governments in order to cut excess capacity.

However, things in China are not that simple. Firstly, the SOEs are not necessarily profit maximising firms. So the shutdown conditions that we discussed above do not necessarily apply to their operating decisions. Secondly, old habits die hard, and there is strong resistance to change from the vested interest groups. As we argued recently[1], China's supply-side reform is not the same as the supply-side reform that the US and the UK implemented in the 1980s that caused massive layoffs and bankruptcies. The preference of the Chinese-style supply-side reform is to favour mergers and acquisitions to improve operation efficiency, but not to cause massive bankruptcies and unemployment.

[1] See "*Chi on China: China's Supply-side Reform is not What you Think*", 25 May 2016.

So what we can realistically expect in the short-term is some bankruptcies leading to a rise in banks' non-performing loans (which also imply an end to Beijing's blanket implicit guarantee policy) and some increase in unemployment; most of the inefficient firms will be absorbed by stronger ones. Beijing will set up more "hardship funds" to help the unemployed alleviate their income losses and through job retraining.



Meanwhile, growth of the labour-intensive tertiary sector will help absorb workers shed from the industrial retrenchment process (Chart 3) and keep the labour market stable. Thus, the result of the Chinese-style supply-side reform is not a sharp rise in unemployment, but deterioration in household income growth, as the service sector jobs that absorb the industrial lay-offs are low-pay jobs.

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