

# China | Shanghai Lockdown: most likely scenarios and its impact on global supply chain

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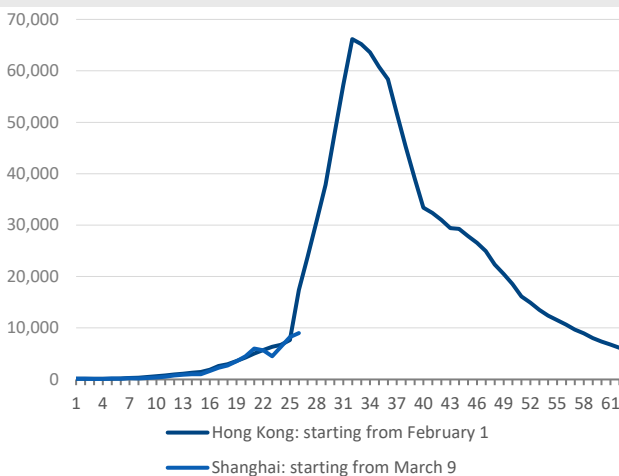
## A full-scale lockdown is imposed in Shanghai

The Covid-19 flare-up in Shanghai deteriorates very fast. This week the number of daily infected cases in Shanghai has already exceeded 10 thousands, which is comparable to Hong Kong in mid-February. (Figure 1) It doesn't bode well for Shanghai because the most contagious variant of the Covid-19 virus, namely Omicron, at last broke down the defense of Hong Kong and swept the city in March. By end-March, it is estimated that at least 20% of the population in Hong Kong have been infected by the Omicron.

Nevertheless, it is still too early to tell whether the Omicron can beat down Shanghai as it did to Hong Kong. The grave situation in Shanghai has prompted the central government to intervene with unprecedented efforts. A strict lockdown is to be implemented in a bid to bring the situation under control as soon as possible. In coordination with the lockdown, China's authorities also mobilize enormous amounts of medical resources from outside Shanghai to support the city.

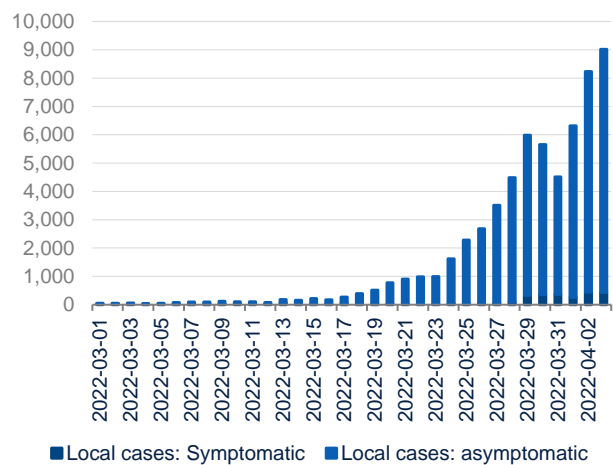
In sum, China's authorities are still embracing their "Zero Covid" strategy in tackling the flare-up in Shanghai. Although it remains an open question whether Shanghai can win this uphill battle, we are certain that China's authorities won't capitulate to the Omicron variant any time soon.

**Figure 1 DAILY INFECTED CASES IN SHANGHAI**



Source: WIND and BBVA Research

**Figure 2. MOST OF THE CASES ARE ASYMPTOMATIC**



Source: WIND and BBVA Research

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## Will China change its strategy of “Zero Covid”?

The criticism of China’s “Zero Covid” strategy is on the rise even within China. In Shanghai, people find that the carriers of the Omicron variant generally develop mild symptoms. (Figure 2) It seems that the mutation of the virus has substantially reduced its lethality. More and more people, including some medical experts, suggest that China should adjust their strategy towards the Omicron and use Shanghai as a test field to find the ways to co-exist with the virus.

Nevertheless, we don’t believe that China’s authorities will switch to the mode of “co-existence with virus” any time soon. Shanghai has now become a watershed in China’s war against the Covid-19, just like Wuhan at the beginning of 2020. If Shanghai repeats the failure of Hong Kong, it is only a matter of time that the rest of China falls under the Covid-19. Moreover, as we discussed in one of our previous notes ([Will China abandon its zero covid policy?](#)), the choice of anti-Covid strategy is to a large extent constrained by China’s political agenda. The authorities cannot afford a failure in battling the Covid-19 virus at the moment when China’s Communist Party is to hold its once-in-five-years National Congress to complete the leadership change.

Our bottom line is that the lockdown in Shanghai will last at least until June. The authorities will stick to its “Zero Covid” strategy while they might fine-tune some measures to minimize the social and economic costs. With the time going on, the general public and policymakers will gain a deeper understanding of the Omicron variant. At some time point, the authorities might find that the hygienic risk of the Omicron variant, in terms of its death toll and threat to the healthcare system, is too small to justify the costly “Zero Covid” strategy. By that time, the authorities will make the big decision to switch to the mode of “co-existence with virus”. But we don’t believe it will happen earlier than June.

## Three most likely scenarios going forward

We envisage that one of three scenarios are likely to take place after Shanghai’s lockdown in April and May. Figure 3 illustrates these three scenarios with our subjective probabilities assigned to them.

In our base scenario, the lockdown will be effective in containing the flare-up in Shanghai. The city is expected to end the lockdown as early as in June. In the aftermath of the lockdown, the authorities will continue to keep vigilant on the Covid-19 virus and implement the “Zero Covid” strategy if new flare-ups emerge in other cities. We assign a probability of 55% to this scenario.

The economic cost is high under this scenario. The governments will become more sensitive to sporadic Covid-19 cases in future and frequently use some costly anti-Covid measures, including the city-wide universal Covid-19 tests, restrictive social distancing and even partial lockdowns, to avert the escalation of flare-ups, which unavoidably lead to disruptions of local productions and consumptions.

The upside scenario corresponds to a possibility that the authorities proactively abandon the “Zero Covid” strategy after realizing the hygienic risks associated with the Omicron variant are very small. Under this scenario, Shanghai will resume normal quickly after the lockdown while the rest of the country will follow Shanghai’s step to co-exist with the virus. The economic cost is minimal under this upside scenario but it has a low probability (20%).

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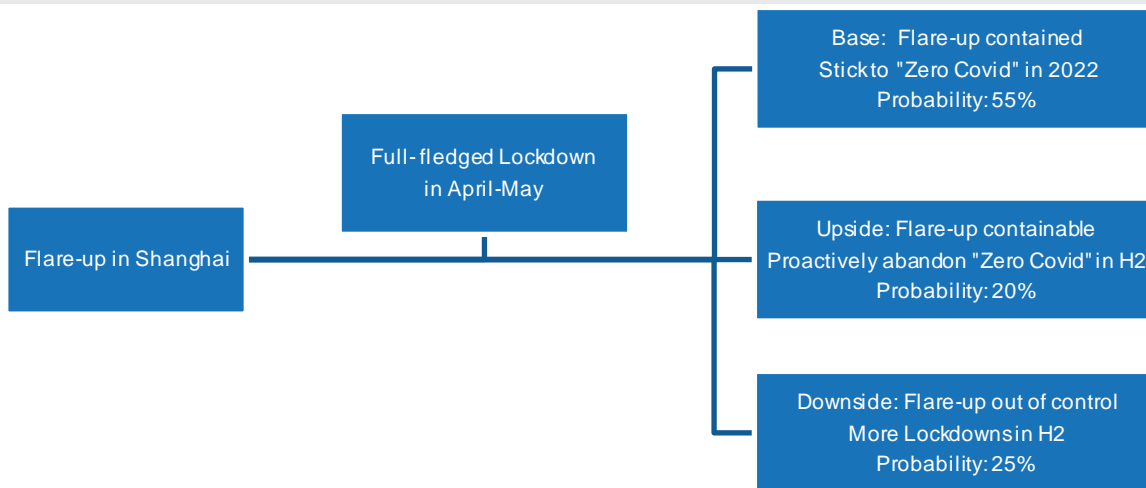
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Under the downside scenario, the two-month lockdown in Shanghai during April-May fails to contain the flare-up. As a result, the authorities have to prolong the lockdown in Shanghai for a longer time and introduce more lockdowns in other cities throughout the second half of the year. The country's economy will suffer tremendous damages from the disruptions caused by the lockdowns. We assign a probability of 25% to this downside scenario.

Figure 3. **SCENARIOS OF SHANGHAI'S LOCKDOWN**



Source: BBVA Research

At this moment it's hard to predict the growth outlook under these three scenarios but we can provide some suggestive ideas about them. In our opinion, China can easily achieve their 5.5% growth target this year under the upside scenario. If they can ensure a smooth transition to the mode of "co-existence with virus", the real growth outcome might be even higher than 5.5%. By contrast, if the downside scenario materializes, China is likely to register a significantly negative output gap this year. Indeed, the world economy suffered a -8% output gap in 2020 due to the rampage of the Covid-19 pandemic. Even if China has more policy room to stimulate its economy, it won't be able to neutralize the downside shock brought by the lockdowns. That being said, the "Zero Covid" strategy could lead to zero growth for China this year.

The base scenario will fall between the upside and downside ones. As we described above, the disruptions of production and consumption will persist when the authorities stick to the "Zero Covid" strategy although full-scale lockdowns won't be used frequently. The authorities will stimulate the economy by unveiling more pro-growth policy initiatives. Nevertheless, it is hard to fully offset the downturn caused by Covid-related disruptions. We anticipate that the real growth outcome of this year will be 1-2% lower than the official target of 5.5%.

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## Shanghai lockdown's impact on the global supply chain?

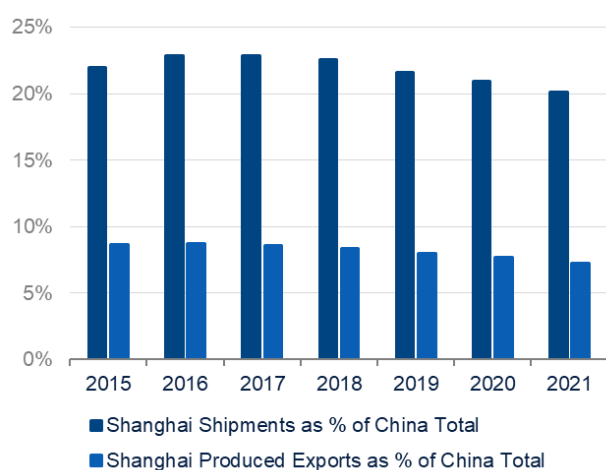
We identify three channels through which Shanghai's lockdown is to affect the global supply chain.

Firstly, as the country's most important manufacturing base, a lot of Chinese exports are produced in the region of Shanghai. The lockdown will lead to product disruptions in the region and directly affect exports. We can call it the "production channel". The government and enterprises can make special arrangements to maintain the normal operation of some manufacturers. It is reported that some factories have already asked their employees to live in their factories so as to avert production disruptions. However, not all the firms can afford to do it. For example, the high-profile Tesla factory in Shanghai recently announced a temporary production suspension.

Secondly, Shanghai port functions to transfer China's shipments to the rest of the world. In this sense, a considerable amount of shipments are not produced in Shanghai but in other places in China. As such, the city's lockdown will not only prolong the transportation time from factories to Shanghai port but also hamper the cargo processing at the port. We call this channel the "logistic channel". In theory, the impact of this channel should be broader than the "production channel" given that it will affect Chinese exports produced in other places than Shanghai. It is reported that Shanghai port is still running with the government's special support for the timing being.

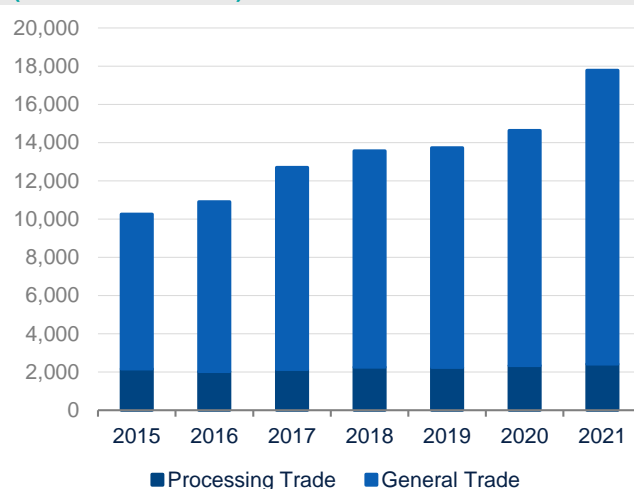
Lastly, part of imports through Shanghai are intermediate goods which will be used as inputs to Chinese exports in future. Therefore, the bottleneck problem in Shanghai will also affect the imports and hamper Chinese exporters' production, particularly in the form of processing trade. We can call it "intermediate goods channel". The exporters' inventory of these intermediate goods could provide a certain cushion. However, this problem could become acute if the lockdown lasts longer.

**Figure 4 MARKET SHARE OF SHANGHAI PRODUCED EXPORTS AND SHIPMENTS**



Source: WIND and BBVA Research

**Figure 5. PROCESSING TRADE AND GENERAL TRADE (UNIT: RMB 100 MN)**



Source: WIND and BBVA Research

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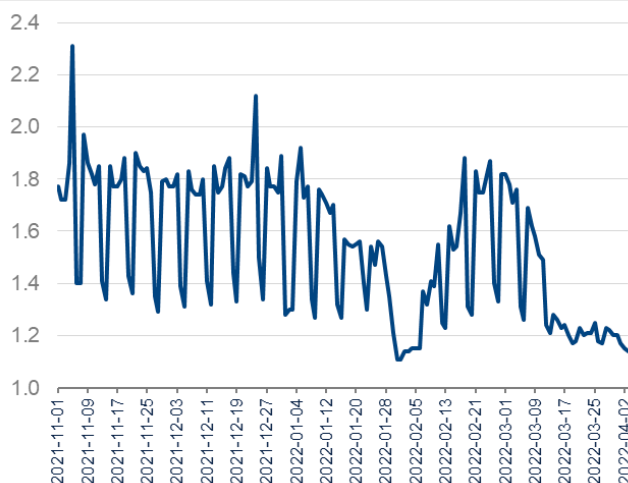


We show some basic facts in the figures 4&5. In particular, figure 4 compares the “production” and the “shipment channel”. The exports produced in Shanghai account for 7.2% of China’s total exports in 2021 while Shanghai port transferred around 20% of China’s total exports to the rest of the world. Therefore, if Shanghai port cannot function normally due to the Covid-19 crisis, the impact will be substantial. Figure 5 shows that the share of processing trade has been trending down over the past several years. This is good news for the “intermediate goods channel”. However, some capital goods imports are included in general trade. Therefore, this “intermediate goods channel” can still be relevant. It will become acute with the prolonged lockdown as the producers can run out of their input inventory.

A batch of high-frequency indicators allow us to monitor Shanghai’s situation in a timely way. The congestion delay index has declined to the level during the Chinese New Year (CNY) holidays at the beginning of February, indicating that the lockdown measures have substantially reduced people’s mobility. (Figure 6) At the same time, the vehicle freight flow index plummeted recently. (Figure 7) It doesn’t bode well for the global supply chain because a lion’s share of Chinese exports produced outside Shanghai need to be transported to the city’s port for shipments. Lower levels of vehicle freight flow means less exports to other countries.

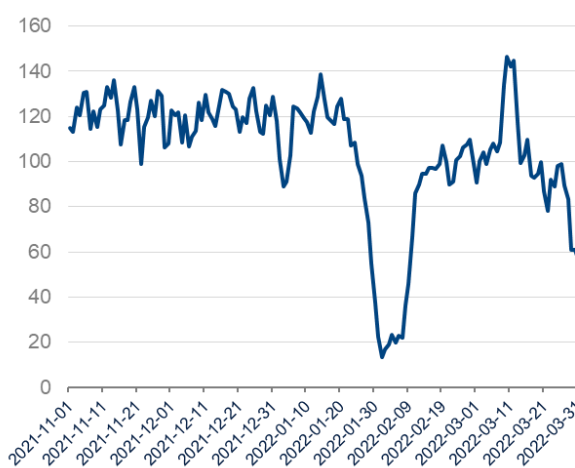
Fortunately, Shanghai port seems to function normally as the authorities claim. The price change of containers in Shanghai shows a similar trend with the national one. (Figure 8) Moreover, the number of waiting vessels outside Shanghai port still remains at a normal level, albeit rising from its February’s low. (Figure 9) However, it is uncertain how long the normal operation of Shanghai port can last. If Shanghai port stops functioning, it’s difficult for other nearby ports to fill in the void given its gigantic capacity. By then the global supply chain will directly feel the pain of Shanghai’s lockdown.

**Figure 6 CONGESTION DELAY INDEX: SHANGHAI**



Source: WIND and BBVA Research

**Figure 7. VEHICLE FREIGHT FLOW INDEX: SHANGHAI**



Source: WIND and BBVA Research

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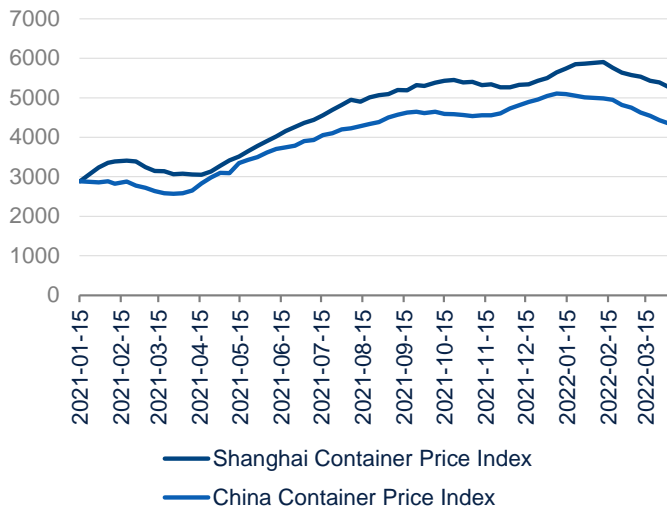
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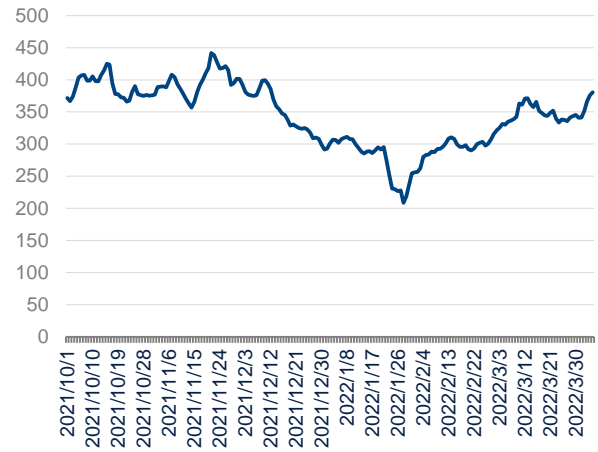


**Figure 8 CONTAINER PRICE INDEX BETWEEN SHANGHAI AND CHINA**



Source: WIND and BBVA Research

**Figure 9. NUMBER OF VESSELS WAITING OUTSIDE SHANGHAI PORT**



Source: WIND and BBVA Research

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