NSW Treasury

Omicron outbreaks in China - Economic Impacts

Economic Data Briefing

May 2022

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Acknowledgement of Country

The NSW Treasury acknowledges that Aboriginal and Torres Strait Islander peoples are the First Peoples and Traditional Custodians of Australia, and the oldest continuing culture in human history.

We pay respect to Elders past and present and commit to respecting the lands we walk on, and the communities we walk with.

We celebrate the deep and enduring connection of Aboriginal and Torres Strait Islander peoples to Country and acknowledge their continuing custodianship of the land, seas, and sky.

We acknowledge the ongoing stewardship of Aboriginal and Torres Strait Islander peoples, and the important contribution they make to our communities and economies.

We reflect on the continuing impact of government policies and practices and recognise our responsibility to work together with and for Aboriginal and Torres Strait Islander peoples, families, and communities, towards improved economic, social and cultural outcomes.

Artwork: ‘Regeneration’ by Josie Rose

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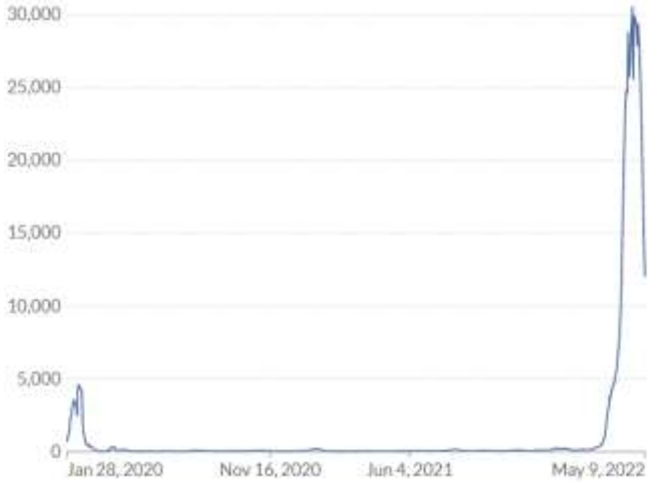
Summary

- China's COVID case numbers have climbed sharply since March 2022 with the emergence of Omicron and its subvariants. Its continued adherence to a zero-COVID strategy and consequent reimposition of restrictions on mobility and activity have had a significant negative impact on Chinese domestic activity.
- Meanwhile, the disruption to manufacturing operations and shipping ports have added further pressure to global supply chains.
- China is New South Wales's largest source of imports; the disruption to Chinese production and supply chains will lead to further inflationary pressure for the State's economy.
- China is unlikely to abandon its zero-COVID strategy in the near term. That said, the easing of restrictions in Shanghai shows that the government is willing to compromise between achieving its growth target and reducing the number of COVID cases.

China's COVID response

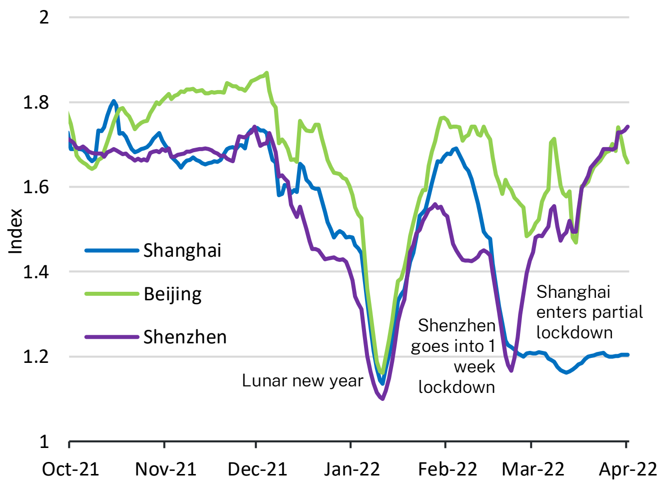
- COVID cases in China have risen sharply since March as the country grapples with its worst COVID outbreak since the beginning of the pandemic. The number of new cases spiked from around 100 cases a day in early February to over 30,000 cases by late April (Chart 1).
- In response to the outbreak, at least 45 cities have been subject to some form of lockdown, including populous regions like Shenzhen, Shanghai, Beijing and Jilin. These regions represent over 40 per cent of GDP and more than 370 million people (over a quarter of China's population).
- Shenzhen, China's major tech hub and home to the country's second largest port, ended its week-long lockdown in late March. By contrast, Shanghai, which had previously tackled growing cases through localised lockdowns, abandoned this more "relaxed" approach and enacted a city-wide lockdown on 5 April. Restrictions severely limited mobility and business activities, evidenced by significant falls in traffic congestion (Chart 2).
- Over a month after restrictions were implemented in Shanghai, the government announced that 666 companies, nearly 40 per cent of which are automakers, will be allowed to resume operations under the so-called "closed loop management", where workers are asked to live at the production site and contact is limited to people with valid negative virus tests.
- On 15 May, Shanghai announced that the city will reopen shopping centres, supermarkets, restaurants and hairdressers, with aims to end the lockdown by the beginning of June.
- Beijing, meanwhile, started mass testing most of its 22 million residents after recording just 33 new cases on 25 April, triggering fears of a Shanghai-type lockdown.
- President Xi Jinping has stated that China will "stick with" its zero-COVID strategy to "continue to put people and life at the forefront", and that "prevention and control work cannot be relaxed".

Chart 1: Daily new confirmed COVID-19 cases in China



Source: Johns Hopkins University CSSE

Chart 2: China's road congestion index



Source: Macrobond

Economic Implications for China

China's zero-COVID strategy has disrupted operations in manufacturing hubs and shipping ports. The most notable cities affected include Shanghai, Shenzhen and Beijing. A profile for these cities is included in Appendix 1.

China's economy grew by 4.8 per cent in the March quarter on a through the year basis. This was below the government's annual target of 5.5 per cent.

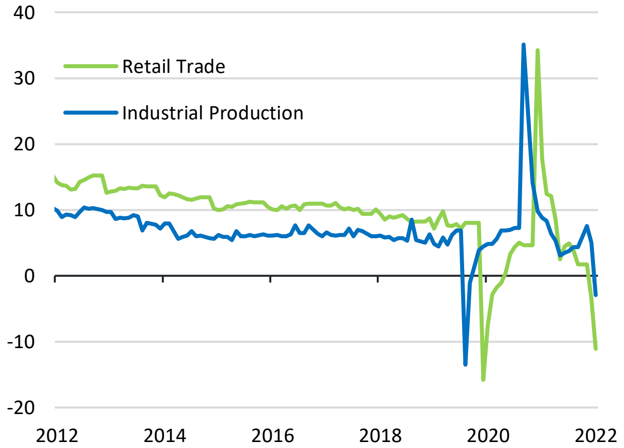
The ripple-effects of extended lockdowns are evident through a number of economic indicators:

- Business surveys have weakened, with the official Purchasing Manager's Index (PMI) falling to 47.4 in April, the lowest reading since February 2020 (during the initial COVID lockdown). PMI readings below 50 indicate a contraction in manufacturing activity.
- Reflecting this, industrial production in April fell 2.9 per cent compared to a year earlier. Outside of the original lockdown in early 2020, this is the only other time that Chinese industrial production has fallen on a through the year basis in the past thirty years. Within the total, motor vehicle output dropped 44 per cent while production of cement fell 18.9 per cent.
- Weak consumer sentiment, exacerbated by restrictions, saw retail sales fall 11.1 per cent in April compared to a year earlier, the sharpest decline since March 2020 (Chart 3). This is only the second time in three decades that retail sales has fallen on a through the year basis.
- The disruption to production is also evident in a slowing in export growth to 3.9 per cent over the year, down from 14.7 per cent in March. The April figure marks the lowest annual growth rate since June 2020 when the economy was still recovering from the initial outbreak.
- The Omicron outbreak has also seen a slowdown of fixed asset investment. The official figures show growth over the four months to April still relatively healthy at 6.8% compared to the same period last year. However, this masks a more significant slowing in near term momentum, with estimates from the National Australia Bank indicating that through the year growth has fallen from 7.1 per cent year on year in March to 2.3 per cent in April. Investment by state-owned enterprises grew more rapidly than private sector firms.
- The unemployment rate rose to 6.1 per cent, the highest since February 2020, reflecting the impact on production and the effect movement restrictions had on recruitment (Chart 4).
- Economists estimated that the COVID lockdown in Shanghai alone is costing China at least USD$46 billion a month, or 3.1 per cent of China's monthly GDP.
- Financial markets have also been affected, with the Shanghai Composite share index falling more than 20 per cent from its recent peak in September 2021. On 25 April alone, the day that mass

testing commenced in Beijing, the share market fell 5.1 per cent, marking the index's largest single day percentage decline since February 2020, amid fears of an economic slowdown.

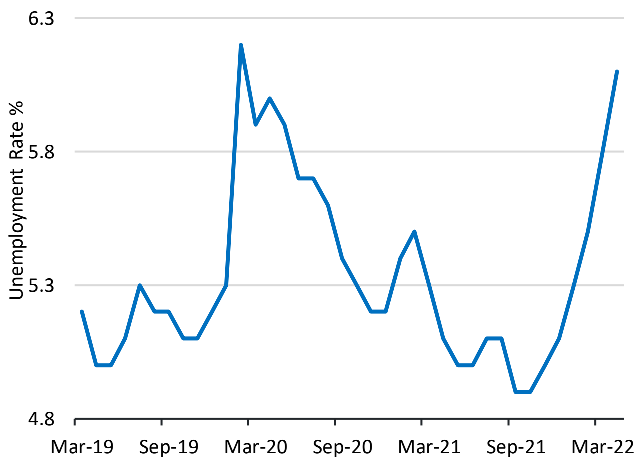
- Meanwhile, weakened sentiment saw the Chinese yuan fall to an 18-month low against the U.S dollar despite pledges by the Chinese government to keep exchange rates "basically stable". The People's Bank of China intervened to cut the foreign exchange deposit reserve requirement for banks by one percentage point to 8 per cent from 15 May to ease pressure on the currency. It also set the yuan mid-point at 6.56 against the USD, the weakest peg since April 2021.
- Business disruptions in Shanghai will likely ease in the coming weeks as officials have announced plans to gradually reopen and resume "normal life" on 1 June. However, the risk of city-wide lockdowns elsewhere still remain as China continues to pursue its zero-COVID strategy.

Chart 3: China's Retail Trade and Industrial Production growth (YoY)



Source: Macrobond

Chart 4: China's Unemployment rate



Source: Trading Economics

Global Economic Implications

Over recent decades, China has established itself as a global manufacturing and export hub, making it a key player in global supply chains. Today, China has the largest share of global exports in goods, at 14.8 per cent (Table 1)

Global supply chain pressures have been mounting since early 2020 when China entered its initial lockdown. Plagued with factory disruptions and shipping bottlenecks, major Chinese exports such as phones, televisions and automobiles now take longer to produce and ship across the world.

China's central role in global supply chains means that the domestic surge in Omicron cases will exacerbate cost pressures across a vast number of industry sectors.

- The global semi-conductor **chip shortage** is likely to worsen as production is halted. China is the world's largest exporter of semiconductor devices (including diodes and transistors), accounting for 30 per cent of global exports (with a value of USD$35.7 billion in 2020). Unimicron, which supplies chips to Apple and Intel, was forced to close one of its two plants outside of Shanghai for more than three weeks to comply with COVID restrictions.
- There is concern for a supply shortage of **electronic devices**. As of 2019, China assembled 35 per cent of the world's electronic devices and had a 68 per cent share of global smartphone production. Foxconn, Apple's largest contractor, suspended production in two of its factories outside of Shanghai after COVID cases were reported on site. Apple's CFO has stated that supply chain constraints could hurt the company's annual sales by between USD$4-8 billion.
- **Car components**, including battery cells for electric vehicles, may also face delays. In 2021, about 32 per cent of global vehicle output was manufactured in China and the country accounted for 57 per cent of global production of electrical vehicles. Toyota and Volkswagen both suspended their

operations in Jilin for more than a month. Tesla resumed production at its Shanghai plant in late April after suspending operations for more than three weeks and aimed to achieve pre-lockdown production level of 2,600 vehicles per day by late May.

Table 1: China merchandise exports in 2020, global

Product category	(US$b)	Global Share (per cent)
Telephone sets, incl. telephones for cellular networks or for other wireless networks	223.2	39.6
Automatic data-processing machines	170.2	44.5
Electronic integrated circuits	117.1	14.9
Made-up articles of textile materials	55.2	75.0
Lamps and lighting fittings, incl. searchlights and spotlights	37.6	64.1
Diodes, transistors and similar semiconductor devices	35.7	30.3
Tricycles, scooters, pedal cars and similar wheeled toys	33.5	61.9
Parts and accessories for tractors, motor vehicles for the transport of ten or more persons	32.9	9.6
Monitors and projectors, not incorporating television reception apparatus; reception apparatus	31.9	35.2
Parts and accessories (other than covers, carrying cases and the like) suitable for use solely ...	31.5	24.3
Furniture	30.8	32.9
Electrical transformers, static converters, e.g. rectifiers, and inductors	30.0	28.7
Seats, whether or not convertible into beds	29.1	37.2
Total	2,590.6	14.8

Source: Trade Map (WTO/UNCTAD)

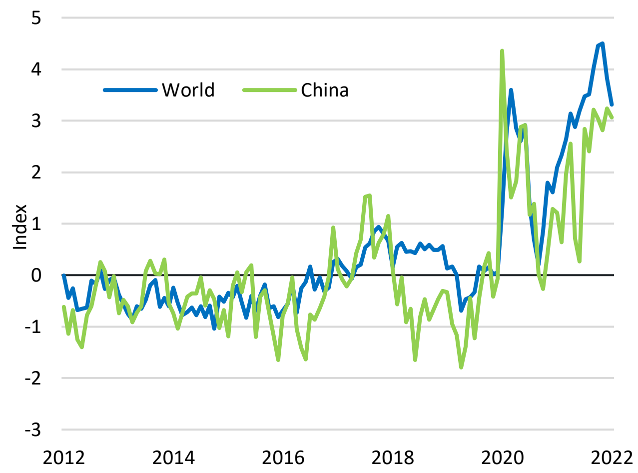
- There could also be supply disruptions for the **toy industry** with lockdown affected areas like Shenzhen and Dongguan being major manufacturers. In total, China produces an estimated 75 per cent of all toys worldwide.
- The **e-commerce** industry is also affected as Shenzhen is home to around half of all the online retail exporters in China. The restrictions in place could affect delivery of goods sold on major online marketplaces like Amazon. According to Australia Post, 40 percent of Australian shoppers' most recent purchases were from China.
- China's restrictions have worsened the availability of fertiliser, labour and seeds causing disruptions to grain production. Wheat and corn prices in China rose 5 per cent and 3 per cent respectively in March from a month earlier partly due to Russia's invasion of Ukraine. Russia is a key fertilizer exporter and Ukraine supplied China with 29 per cent of its imported corn and 26 per cent imported barley in 2021. A fall in domestic output of grain will force China to increase imports, driving up **global food prices** even further.

China's COVID approach is likely to have a worldwide impact on transit times and shipping rates and with it, global supply chains. China is home to seven of the world's ten busiest container ports.

- Though global supply chain pressures have eased in the past couple of months, the same cannot be said for China (Chart 5). While China's index is below the peak seen in the initial lockdown of 2020, likely as a result of the wider adoption of "closed-loop management", it remains indicative of severe ongoing pressure on supply chains.

- The Port of Shenzhen handled 26.55 million twenty-foot equivalent units (TEU's) of cargo in 2020, and the city has the second highest foreign trade volume in China. Even a short lockdown can have significant effects on logistics and supply chains. For example, Shenzhen's one-week lockdown saw container throughput of the port decline in the March quarter by 10.9 percent year-on-year (Table 2).
- Lockdowns and other restrictions have nearly doubled the congestion outside China's ports. The number of vessels waiting to dock in Chinese ports has increased from 260 in February, to 407 in March and 506 in April. This indicates that shipping freight delays will continue to grow.
- The Port of Shanghai remains open but the average waiting time for trucks picking up containers has increased from 4.6 days in late March to 12.1 days in April.

Chart 5: Global Supply Chain Pressure Index



Source: Macrobond

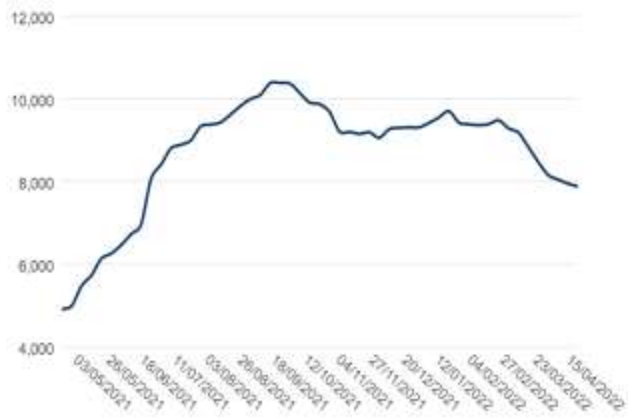
Table 2: China's 4 largest container ports

	Containers throughput ('000 TEUs)	
Port	January-March 2022	% YoY
Port of Shanghai	8,160	9.6
Port of Shenzhen	4,280	-10.9
Port of Ningbo-Zhoushan	5,250	1.1
Port of Guangzhou	3,430	-0.4

Source: Ministry of Transport of the People's Republic of China

- While container shipping costs have increased drastically since the start of the pandemic, the latest disruptions in China coincided with falling shipping container prices. The Drewry World Container Index, which is a measure of freight rates of 40-foot containers for eight major East-West trade routes, fell 15.1 per cent since the beginning of March, but remains 60.3 per cent higher than a year ago (Chart 6). Freight rates on all major trade routes from Shanghai have fallen since late February but remain elevated compared to pre-COVID (Chart 7).
- The country's restrictions have affected operations in its ports and manufacturing hubs. The subsequent supply outages mean that there is less demand for freight transport, driving down container shipping rates. Shipping capacity freed from Russia trade and lower import demand from Western economies amid rising inflation also put downward pressure on shipping rates.

Chart 6: Drewry World Container Index (US$/40ft)



Source: Drewry

Chart 7: Container shipping costs - Shanghai (US$/40ft)

Source: Drewry

Economic Implications for NSW and Australia

The interconnectedness of global supply chains means that disruptions and price increases at any point in the chain can cascade through the entire supply chain. China's key role as a manufacturing and export hub means that the price of goods coming out of China plays a significant role in determining the price of domestic imports. Pandemic-driven disruptions and supply chain bottlenecks in China have led to a significant increase in the price of imports from China.

- As the state's largest source of imports, China accounted for 32 per cent of total imports into NSW in 2020. Over the past ten years, the volume of imports has been growing by an annual average of 6.7 per cent.
- 40 per cent of our non-metallic construction materials, including lime, cement and clay, as well as 30 per cent of our iron and steel, are imported from China. Our dependence on China for construction materials means that further material delays and increased costs can be expected in this sector in addition to those seen already over the pandemic. CoreLogic's Cordell Construction Cost Index for the March quarter saw a 9 per cent through the year rise, the highest annual growth rate on record outside the introduction of GST. Timber, metals and imported products drove much of the growth.
- On the export side, though it has banned the importation of Australian coal (NSW's largest export), China remains an important customer for other commodities. In 2019, China accounted for 24.4 per cent of the state's copper ore exports (NSW's second largest goods export).
- The price of iron ore has fallen more than 12 per cent since early March, and there are expectations of further falls, amid fears of lower Chinese demand for crude steel. While not important for NSW, this is material for the rest of Australia.
- The previous COVID outbreak in 2020 saw the Chinese government announce a USD$500 billion stimulus package targeting infrastructure spending. On 26th April, President Xi chaired a top economics meeting that announced a boost to infrastructure construction to stimulate domestic demand and economic growth. This could, ironically, boost Australian commodity exports.
- Cereal and other cereal preparations are New South Wales's second largest goods export to China with nominal export values growing nearly ninefold in 2021 compared to a year earlier. China's agricultural production disruptions may present an opportunity for NSW grain exporters.
- Before the onset of COVID, China was NSW's largest source of international tourists and students. Revenue generated from Chinese tourists fell from $4.1 billion in 2019, to $860 million in 2020, and is likely to decline even further for 2021[1]. The number of international students from China also fell 40 percent between 2019 and 2022[2].
- On May 12, The Chinese National Immigration Administration tightened the reviewing process on issuing passports and imposed a de facto international travel ban which would "restrict nonessential departure of Chinese citizens" from the country to "reduce the risk of infection when leaving the country, and of carrying the virus when entering the country".
- Though Australia has effectively removed all travel restrictions for vaccinated travellers, China's persistence with the zero-COVID strategy is hampering the significant return of Chinese tourists and students in the short term.

[1] Destination NSW, *China Market Profile Time Series*
[2] Department of Education, Skills and Employment, *International Student Numbers*

Outlook – Doing business with COVID

There are some signs of easing pressure on the COVID front in China. In particular, after more than six weeks of lockdown, the Shanghai government announced that restrictions will be easing in phases. The aim is to end the lockdown by 1 June, with priority being to resume industrial production followed by commercial businesses. That said, at the same time, in Beijing, all residents from the eastern district of Chaoyang, the city's central business district and home to the majority of Beijing's many foreign embassies, are now required to work from home.

President Xi has repeatedly stated that China will continue to pursue its zero-COVID strategy. We do not expect any formal change to China's strategy until after the 20th National Congress of the Communist Party which will be held in November. With the President expected to seek a third term in power, it would be a significant political risk for Xi to change narrative after claiming systematic superiority for supressing earlier COVID outbreaks.

Moreover, the lower efficacy of Sinovac vaccines, a weaker healthcare system as well as a low elderly vaccination rate means that the Chinese health system is not strong enough to cope with widespread infections. China is developing its own mRNA vaccines but it will take some time before it is available to the public.

That said, the significant impact that the current approach has had on the economy in April has seen support for the policy wane, necessitating a rethink in how stringently this policy is implemented. The easing of restrictions in Shanghai highlights that there is some divergence on the policy within the Chinese Communist Party. In particular, it shows that the government is willing to compromise between achieving its growth target of 5.5 per cent and reducing the number of COVID cases.

Consistent economic growth remains the Communist Party's major source of political legitimacy. In the long term, it is likely that President Xi and other party leaders will want to avoid further economic slowdown as sustaining growth is key to the party's survival and to maintain political and social stability.

At the same time, companies are learning to better adapt to China's COVID approach, in part by adopting the "closed-loop management" strategy, where companies ask employees to live and work in an isolated bubble arrangement that allows factory lines to remain open. Reports indicate that TCL, a Chinese television manufacturer, has been keeping its factories in Shenzhen open using this approach. Tesla was also making plans for a similar arrangement in its factory in Shanghai.

Meanwhile other companies, like Foxconn, said they would try to shift their production, equipment and materials to sites unaffected by health restrictions. E-Commerce giant Amazon also stated that it is diverting freight to warehouses in parts of southern China.

As more businesses learn to adapt to China's COVID strategy, it should help to limit the impact of lockdowns on global supply chains in the future. But while ever some form of zero-COVID strategy is maintained, a return to normal conditions for global supply chains is unlikely.

Appendix 1: Market Profiles

Shanghai - Largest Chinese city by GDP

- As the most populous city in China and with the country's highest GDP, Shanghai is the commercial and financial centre of China.
- The city has the world's largest container port, handling 43.3 million TEUs (twenty-foot equivalent units) in 2019.
- Shanghai exported $1.08 trillion yuan of mechanical and electrical products in 2021, accounting for nearly 70 per cent of the city's total export value.
- Export of automobiles doubled in 2021; the city exported more than 480,000 vehicles with an export value of $57 billion yuan.

Shenzhen - Silicon Valley of China

- Dubbed China's "Silicon Valley" and with the 3rd highest GDP growth rate in China (6.7 per cent in 2020), Shenzhen is often regarded as China's most important hi-tech R&D and manufacturing hub.
- The city has the world's fourth largest container port and China's fourth largest airport for cargo.
- In 2020, the city's exports accounted for 39 per cent of Guangdong province's total exports and 9.5 per cent of China's. 50 per cent of its exports came from the hi-tech sector and accounted for almost 16 per cent of all Chinese high-tech exports.
- Tech giants like Huawei and Tencent are based in Shenzhen.

Beijing - Administrative centre of China

- The capital city's service sector accounted for more than 80 per cent of its GDP in 2019; financial services, information technology services, and scientific research and technical services, were the three biggest sectors.
- Though Beijing is the country's 8th largest exporter, it is not considered as central to global production networks as Shanghai, with Hong Kong being its biggest export destination.

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