Economic Watch

China | Will infrastructure investment become the key growth stabilizer in 2022?

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Recent "Zero Covid" measures and economic slowdown have urged China's policy turnaround from the "new" to "old" growth model

Recent Omicron outbreak and the lockdown measures in China significantly changed the previous soft-landing story of Chinese economy in 2022. In March and April, Shanghai and other mainland cities' lockdown led to supply-side stagnancy and supply-chain disruptions. Coincidentally, the recent trending-up inflation, tumbling exports and RMB sharp depreciation etc. have shrink the authorities' policy room for more aggressive easing measures.

Chinese authorities indeed face an "Impossible Trinity" in 2022 among "Zero Covid", financial stability and 5.5% growth target. Given that the authorities still stick to "Zero Covid", there are only two possible choices of the policy mix: (i) if the authorities want "Zero Covid" and 5.5% growth target together, they have to conduct aggressive easing monetary measures which are unsynchronized with the US FED, leading to financial instability such as capital flight and sharp RMB depreciation etc.; (ii) if they want "Zero Covid" and a synchronized monetary policy with the US FED to circumvent financial instability, they have to accept a lower growth rate than 5.5%. The authorities are probably trying to experiment (i) with aggressive easing measures at the current stage, although the real-world scenario might be (ii) ultimately.

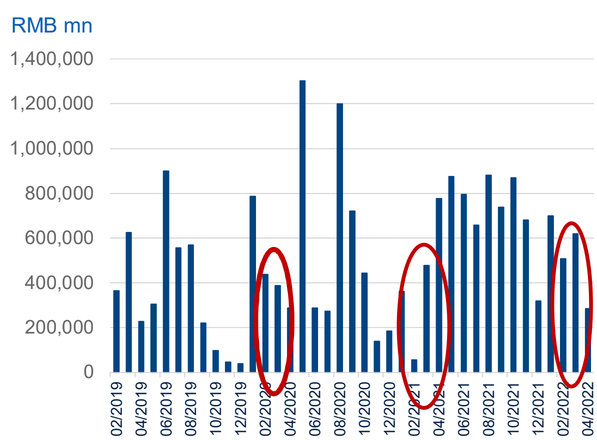
Under this "trilemma" circumstance, Chinese authorities have already made some significant policy turnaround and reverted to "old growth model" in the recent months to stimulate growth. The so-called "old growth model" highly depends on real estate, exports and infrastructure investment to boost economy, the model that Chinese authorities have always implemented during the business cycle downturn in the past decades.

Some of the recent policy moves tilting towards infrastructure investment boost include but not confined with the following policy initiatives: In the State Council executive meeting in January 2022, the authorities prioritized the 102 infrastructure projects outlined in the 14th Five Year Plan, including new infrastructure projects, new urbanization projects, transportation and water conservancy projects, storage and postal facilities etc. In the Central Financial and Economic Committee Conference on April 26 2022, President Xi re-emphasized the importance of infrastructure investment to support growth in this year and clearly signaled that China's infrastructure still has large potential to grow.

These high-level meetings also outlined the principles of infrastructure investment in 2022: (i) to construct the modern infrastructure system with the balance of development and security; (ii) to comprehensively consider the benefits of the economy, society, environment and security etc. when conducting the new infrastructure projects; (iii) to take the equal emphasize on the "old" and "new" infrastructure investment; and (iv) to expand financial channels and to include social capital into the infrastructure investment, such as PPP (public-private partnership).

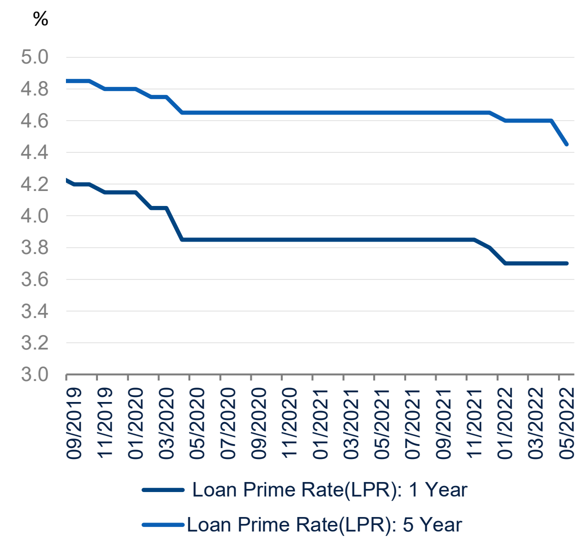
In a bid to stimulate infrastructure investment, the authorities also recently promulgated a series of monetary and fiscal easing measures. Regarding fiscal stimulus, the pace of special local government bond issuance reached historical high in Q1, indicating the authorities have strained every nerve to stimulate infrastructure investment. In particular, the new increase issuance in Q1 reached 36% of full-year budget of local government bond issuance (RMB 3.65 trillion) and 89% of quota for the early issuance (RMB 1.46 trillion). The Q1 issuance level is significantly higher than that of the same period of 2021 and 2020. (Figure 1) On the front of monetary policy easing, the PBoC recently cut the 5-year LPR from 4.6% to 4.45%, the largest cut since the LPR reform in August 2019, suggesting the expansionary stance of monetary policy to support infrastructure long-term investment financing. (Figure 2)

Figure 1. **THE AUTHORITIES SPEEDED UP LOCAL GOVERNMENT BOND ISSUANCE IN Q1, WITH ITS LEVEL HIGHER THAN THE SAME PERIOD OF 2021 AND 2020**



Source: CEIC and BBVA Research

Figure 2. **THE PBOC CUT 5-YEAR LPR BY 15 BPS, THE LARGEST CUT SINCE 2019 LPR REFORM TO SUPPORT LONG-TERM INFRASTRUCTURE FINANCING**



Source: CEIC and BBVA Research

Infrastructure investment has always been an important counter-cyclical measure for China in the past decades

Infrastructure investment constitutes a large ratio of Chinese total GDP and has been the main growth engine for Chinese economy in the past decades. It contributes around 6.5% of the total GDP in 2021. (Figure 3 and 4) However, these figures only consider the direct effect while ignore the indirect effect. Infrastructure investment, whether they are “new” or “old”, has large externalities to other sectors. For example, a better infrastructure may benefit a province or a region’s tourism, FDI, real estate investment, etc. If we consider its strong linkages to its upstream and downstream sectors, such as construction, architecture raw materials, etc., as well as its extremities to tourism, industrial investment, real estate and FDI etc., infrastructure is estimated to contribute around 20% of GDP for Chinese economy for the past decades.

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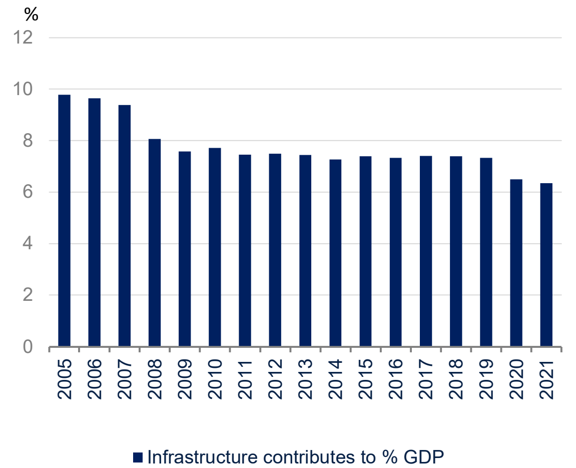
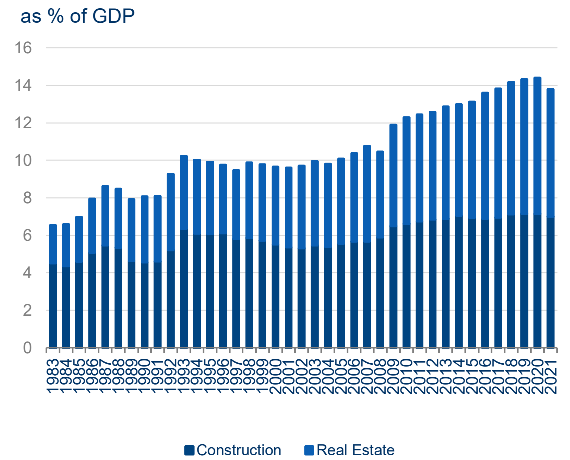
Figure 3. **INFRASTRUCTURE CONTRIBUTES TO AROUND 6.5% OF GDP IF ONLY DIRECT EFFECT IS CONSIDERED**



Source: CEIC and BBVA Research

Figure 4. **REAL EASTATE AND CONSTRUCTION SECTOR COMBINED CONTRIBUTE AROUND 14% OF CHINA'S TOTAL GDP**



Source: CEIC and BBVA Research

In the past two decades, infrastructure has always been the stabilizer and the main counter-cyclical measure to stimulate growth amid business cycle downturns. Through fiscal expansionary measures particularly the issuance of local government bond, infrastructure investment has always been the main pillar to smooth the business cycle. During 2007-2016, infrastructure investment has remained double-digit growth in China and it is not difficult to understand that Chinese business cycle has always been deemed to be "infrastructure cycle" in the past decades. (Figure 5)

Take 2008-2009 Global Financial Crisis as an example, Chinese authorities injected RMB 4 trillion into the economy, most of them went to the infrastructure investment, which successfully secured a soft-landing of the economy when other countries went into recession. (Figure 6) Including the Global Financial Crisis period, historically, there were three times of expansionary infrastructure investment policy in China, in 2008-09, 2012 and 2016, respectively. Every time, infrastructure investment expansion played a counter-cyclical role and successfully pulled the economy out of the mud.

However, the "golden time" of China's infrastructure investment gave way to the deleveraging campaign and supply-side reform since 2018. Due to the tightening regulation on local government debt and the stricter scrutiny process of infrastructure projects in a bid to fulfill the deleveraging targets, the infrastructure investment growth has gradually dipped from 2018 to 2020. Worse still, during 2021, the post-pandemic time, due to the early exit of fiscal policy stimulus as China "first-in, first-out" of the pandemic, infrastructure investment even plunged to as low as an average growth of 0.4% in 2021.

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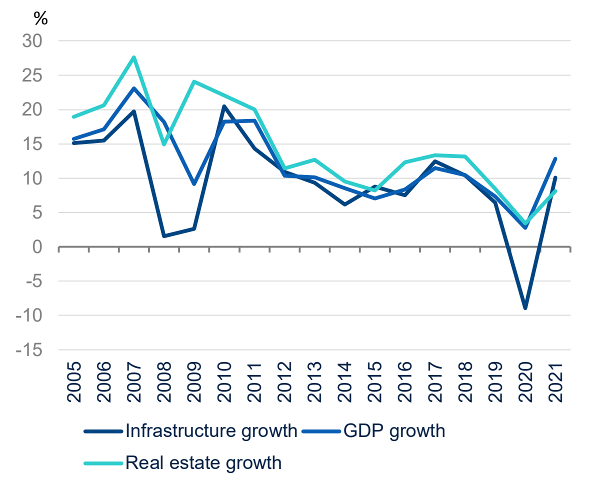
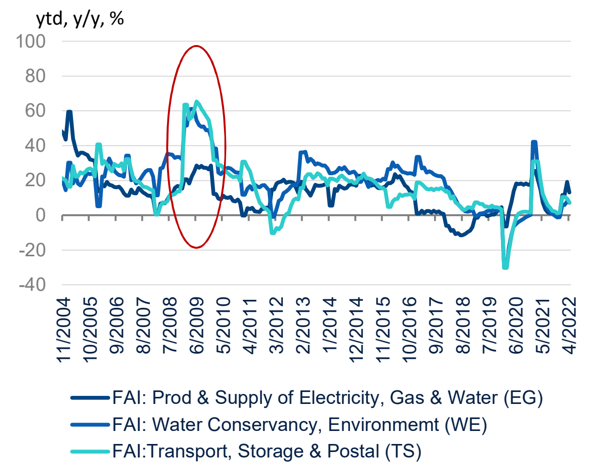
Figure 5. **THE MARKET ALWAYS BELIEVES CHINA'S BUSINESS CYCLE IS EQUIVALENT TO REAL ESTATE CYCLE AND INFRASRTCUTURE CYCLE**



Source: CEIC and BBVA Research

Figure 6. **RMB 4 TRILLION STIMULUS PLAN ON INFRASTRUCTURE SUCCESSFULLY SECURED A SOFT-LANDING IN 2008-09**



Source: CEIC and BBVA Research

However, history always repeats. The recent growth headwinds stemmed from Omicron outbreak and lockdown measures again brings infrastructure investment from back to the front. Why infrastructure investment becomes important again? Here are some important factors which determine its counter-cyclical role during the pandemic time:

First, among the traditional "Troika" of China's growth engine, namely exports, infrastructure investment and consumption, infrastructure is the most controllable by the authorities. Through issuing local government bond, it is the most efficient way which could be fully controlled by the authorities to stimulate growth during the business cycles downturns in the past decades, while the other two engines are much more ambiguous. For instance, consumption bears the most severe economic blow by the "zero-Covid" policy while exports are external-demand determined which is going to experience a significant slowdown as the US and Europe is entering into recession due to the aggressive central bank interest rate hike this year.

Second, among the three categories of the fixed asset investment (FAI), namely housing, infrastructure and manufacturing, only the former two are domestic determined while manufacturing investment heavily depends on the external demand due to the dominant position of China's processing trade in the manufacturing sector. In addition, due to the regulatory storms and housing market crackdown in 2021, it is very difficult to stimulate growth through real estate this year, as it is difficult to alter people's expectation on the housing price slowdown once it was formed.

Third, infrastructure investment still has a large room to grow in China. In particular, China's infrastructure stock per capita is only around 20-30% of that of the developed countries. As the urbanization progresses in China, together with the national strategy of developing the western and middle region of China, infrastructure investment has large potential to grow. In addition, the authority's priority to develop "new infrastructure" such as artificial intelligence, block chain, cloud computing, big data and 5G etc. also brings about many new opportunities to infrastructure investment.

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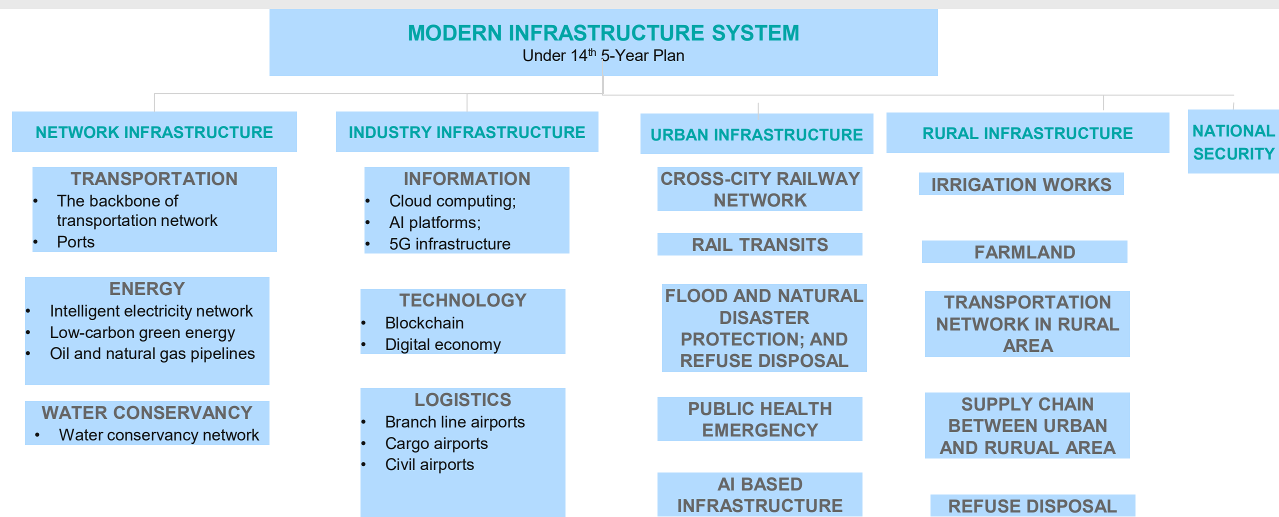
Finally, "new infrastructure" investment is in line with China's "new growth model" which is underpinned by common prosperity, high-tech self-sufficiency and green economy (see our recent Economic Watch: China | Understanding China's New Growth Model) In particular, high-tech self-sufficiency requires a large-scale "new infrastructure" investment and China's carbon neutrality target in 2060 also prospers green economy infrastructure investment, such as photovoltaic infrastructure, hydroelectricity, wind power infrastructure etc.

The authorities promulgated a series of projects to construct a modern infrastructure system under the 14th Five-Year Plan

In this section, we summarize the infrastructure projects that the recent State Council and Central Financial and Economic Conference wanted to prioritize in a bid to construct the modern infrastructure system. These projects are in line with the 102 strategic infrastructure projects in the 14th Five Year Plan. They are divided to four sections of infrastructure investment: network infrastructure, industry infrastructure, urban infrastructure, rural infrastructure and national security related infrastructure. (Figure 7) And we believe these pipeline projects will provide a large amount of infrastructure investment projects in 2022.

Figure 7. **INFRASTRUCTURE INVESTMENT TO CONSTRUCT MODERN INFRASTRUCTURE SYSTEM** (%)



Source: BBVA Research and Xinhua News Agency

The role of New and Old Infrastructure investment

We normally categorize China's infrastructure investment into "new infrastructure" and "old infrastructure". Old infrastructure means traditional investment in airplane, high-speed road, train trail and public facilities such as water conservancy projects, etc. New infrastructure includes but not confined with "ABCDG", namely Artificial Intelligence (AI), Blockchain, Cloud computing, Big data center and 5G infrastructure etc. In a more generalized sense, new infrastructure investment also indicates the digital and intelligent transformation of the traditional infrastructure such as energy, transportation, urban, water conservancy, agricultural infrastructure, etc.

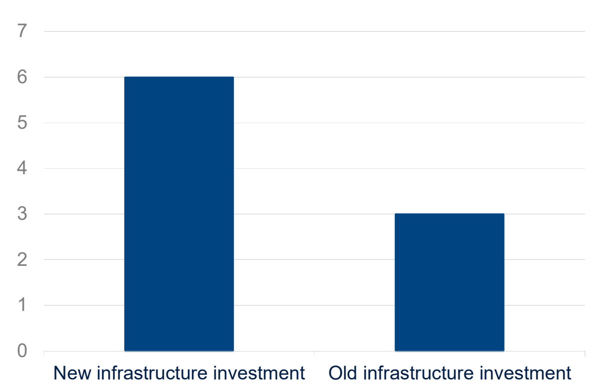
Some statistics and estimations from Cyberspace Administration of China show that new infrastructure investment has a much higher multiplier effect than that of old infrastructure investment. For instance, the multiplier of high-speed railway is estimated by this institute to be around 3, while the multiplier of 5G, AI, industrial internet etc. is estimated as high as 6. Some other research such as Wang (2020) in a working paper of China Academy of Social Sciences also has similar result in which they estimated the multiplier for traditional infrastructure investment is 1.7 in the long term and could reach 3.65 with a higher public goods spillover effect. (Figure 8)

Although the New Infrastructure investment will have a long-term positive spill-over effect to the economy and support China's technology advancement, its total scale, at least at the current stage, remains much lower than the Old Infrastructure investment. For instance, in 2021, the scale of new infrastructure investment reached RMB 1.16 trillion, only around 7.7% of total infrastructure investment. Although this ratio is expected to rise to 15-20% in 2025, it could not wobble the role of the old infrastructure to stimulate the growth.

Regarding the capability to drive GDP growth, at the current stage, old infrastructure also has larger direct effect. Take 2019 and 2020 as an example, based on the GDP expenditure method, old infrastructure could drive GDP growth by 0.4% and 1.2% respectively, while new infrastructure investment could drive around 0.2% and 0.8% respectively. (Figure 9)

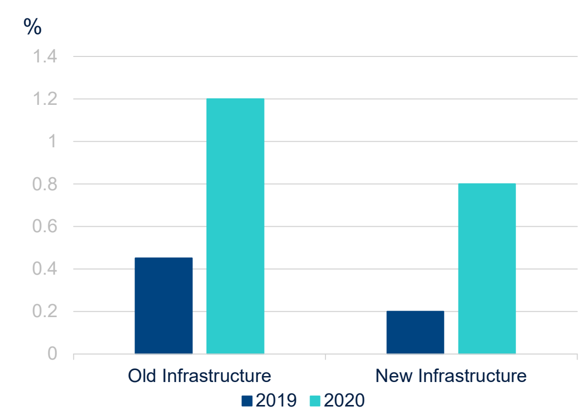
Given that the new infrastructure investment has a higher multiplier effect but old infrastructure has a larger total scale at the current stage, fiscal expansion in 2022 needs to synergize both old and new infrastructure investment. In addition, "new infrastructure" such as infrastructure of digitalization, AI and big data etc. could significantly increase efficiency of "old infrastructure", indicating a necessity of synergizing the two.

Figure 8. **THE ESTIMATED MULTIPLIERS OF NEW INFRASTRUCTURE INVESTMENT IS AROUND TWO TIMES LARGER THAN THAT OF OLD INFRASTRUCTURE**



Source: Cyberspace Administration of China's Estimation and BBVA Research

Figure 9. **AT THE CURRENT STAGE, OLD INFRASTRUCTURE DRIVES GDP GROWTH TO A LARGER EXTENT THAN THAT OF NEW INFRASTRUCTURE**



Source: Zhongtai Securities Research report (2020) and BBVA Research

How to finance 2022 infrastructure investment?

The market has started to worry about fiscal burden of this year particularly at the local government level. Thus, how to finance 2022 infrastructure investment becomes an impending issue.

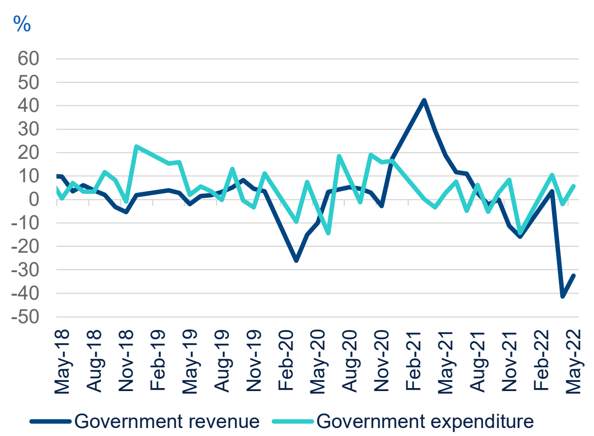
These worries come from a significant dip of fiscal revenue in April (-41.3% y/y) when lockdown measures imposed in Shanghai and other pandemic affected cities, while fiscal expenditure keeps rising, not only for large-scale infrastructure investment but also for ever-increasing universal and regular Covid-19 PCR tests etc. (Figure 10) The worries are also from the expansionary fiscal measures on tax cuts and fee reductions which significantly shrinks fiscal revenue. In addition, land sales revenue amid a downward housing cycle which used to be the main pillar of local government fiscal income also tumbled by -34.4% y/y in April and -26% ytd y/y accumulatively for Jan-May. Combined together, the fiscal revenue for Jan-May dipped by 10% y/y, while fiscal expenditure increased by 6% y/y for Jan-May, leading the augmented fiscal deficit in January-May 2022 reached RMB 3 trillion.

Under this circumstance, the market estimates the fiscal expenditure-revenue gap will be around RMB 1-2.8 trillion in 2022, given the assumption that Q3 and Q4 GDP will bounce back to 5-6%. That means, it is probably difficult to strike a fiscal balance this year with a shrinking fiscal revenue and an expansionary fiscal expenditure. If the authorities do not want to break the fiscal budget of 2.8% which was set in the 2022 “two sessions”, the authorities have to reduce the fiscal stimulus in 2H 2022 particularly on the infrastructure investment, which may deteriorate economic recovery; or if the authorities want to maintain the ongoing fiscal support, more policy-oriented bond or Covid bond needs to be issued and more unutilized fiscal budget in 2021 should be transferred to this year. (Figure 11)

There are several options to finance infrastructure investment this year amid an expansionary fiscal gap and dipping fiscal revenue:

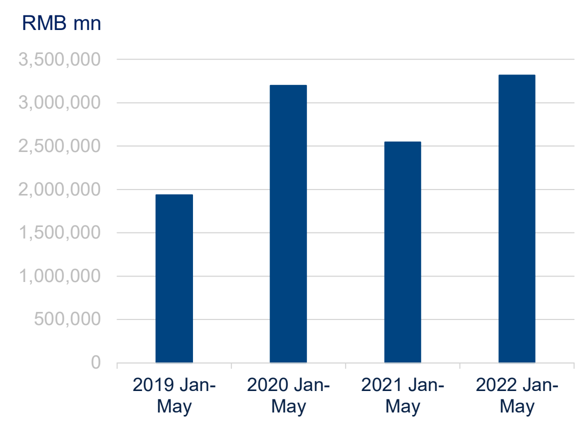
First, to transfer payments of the profits gained by the PBoC and the SOEs at the central government level to Ministry of Finance to fill in the fiscal gap. Indeed, the profits transferred from the PBoC and large SOEs to Ministry of Finance is a usual way in China to finance the fiscal expenditure in the past decades. On March 8 2022, the PBoC transferred RMB 1 trillion accumulated by foreign reserve management gains to Ministry of Finance to support fiscal transferring to local government and the fiscal stimulus measures such as tax cuts and fee reduction etc. The SOEs at the central government level, such as China Investment Corporation (CIC), China Tobacco etc., have also submitted their revenues to Ministry of Finance to support fiscal expansion.

Figure 10. **FISCAL REVENUE DIPPED SIGNIFICANTLY DURING LOCKDOWN PERIOD BUT FISCAL EXPENDITURE KEPT RISING**



Source: CEIC and BBVA Research

Figure 11. **LOCAL GOVERNMENT BOND ISSUANCE IN JAN-MAY 2022 HAS ALREADY SURPASSED THE LEVEL OF THE SAME PERIOD OF 2020 WHEN COVID STARTED IN CHINA**



Source: CEIC and BBVA Research

Second, to issue special government bond to support infrastructure investment is also an option. Although the “two sessions” in March just promulgated the fiscal budget this year to 2.8%, issuing new special government bond at the current stage might have some procedure challenge, the market still calls for the new issuance of special sovereign bond to fill in the fiscal gap and to break the pre-set fiscal budget amid “zero Covid” policy and economic slowdown as the March "two session" did not anticipate the a sudden change of pandemic circumstances in China as well as Shanghai lockdown in end-March.

Third, the transfer from 2021's residual fiscal budget to 2022 could also help to make up for the fiscal gap of this year. As the authorities conducted an early fiscal policy normalization in the past year, the actual utilized fiscal budget was lower than the fiscal budget set in 2021's "two sessions". The amount of residual budget in 2021 was amounted to RMB 2.5 trillion, among which, only half of it (around RMB 1.25 trillion) was transferred into the 2022 fiscal budget while the other half could still be utilized to make up for the fiscal gap in 2022 to support infrastructure investment and other fiscal expenditure.

2022 Infrastructure investment growth prediction and the economic growth outlook

Chinese authorities have already pressed ahead at least three directions of policy initiatives to stimulate infrastructure growth in 2022, which could be summarized below:

(i) There are abundant infrastructure investment projects outlined in the recent high-level State Council and Central Government meetings in a bid to construct modern infrastructure system, in line with the 102 projects raised in the 14^{th} Five-Year Plan.

(ii) The authorities have pushed forward a series of monetary and fiscal easing measures to stimulate infrastructure growth, such as the recent 5-year LPR cut, three RRR cuts, the early release of local government bond quota to stimulate infrastructure investment in 1H 2022, etc.

(iii) The motivation of the local government officials to push forward infrastructure investment is much larger than that of 2021. As the 5.5% growth target for 2022 amid Covid-19 flare-ups and lockdown measures is quite challenging, while local government officials at the beginning of the year even set higher growth target than the nationwide target, it is challenging for them to achieve the goals thus they are much more motivated to take use of available sources to press ahead local infrastructure investment.

Under all of these pro-infrastructure investment measures, for this year, infrastructure investment growth is predicted to be 10-13% based on the expansion of the local government bond issuance (RMB 4.73 trillion) and the fiscal surplus transferred from 2021 to 2022 (around RMB 1.5-2 trillion). Given that infrastructure investment is around 15% of China's total GDP on average in the past 10 years, it is estimated that infrastructure investment will contribute to around 1.5-2% of total real GDP growth. And it will lead the total fixed asset investment to reach 6.5% in 2022 (manufacturing investment estimation: 7%; housing investment estimation: 0.6%).

However, we have to at the same time realize that larger-scale infrastructure investment cannot sufficiently offset the consumption and exports plunge as well as a downward real estate cycle in 2022. The tumbling economic activity figures particularly in March and April reflected that the authorities' lockdown measures under "zero tolerance" strategy significantly weighed on growth. Given that Chinese authorities will continue to stick on "zero Covid" policy in the rest of the year, there will be "impossible trinity" for China's policy setting in 2022: either China needs to give up synchronized monetary policy with the US FED to continue aggressive easing in order to achieve 5.5% growth target which might lead to financial instability, or, the authorities have to give up 5.5% growth target to accept a lower growth in a bid not to conduct aggressive easing measures to circumvent capital flights and sharp currency depreciation.

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Under the current situation, we predict the real-world case would be the latter one, as the policy room of aggressive easing has been shrinking significantly amid a trending-up inflation, sharp RMB depreciation and capital outflows. Look ahead, we predict GDP growth in the second half of the year will gradually recovered from the Q2 downturn caused by the Covid flare-ups and resultant lockdowns. For 2022 as a whole, growth will reach 4.5%, lower than the authorities' 5.5% growth target.

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