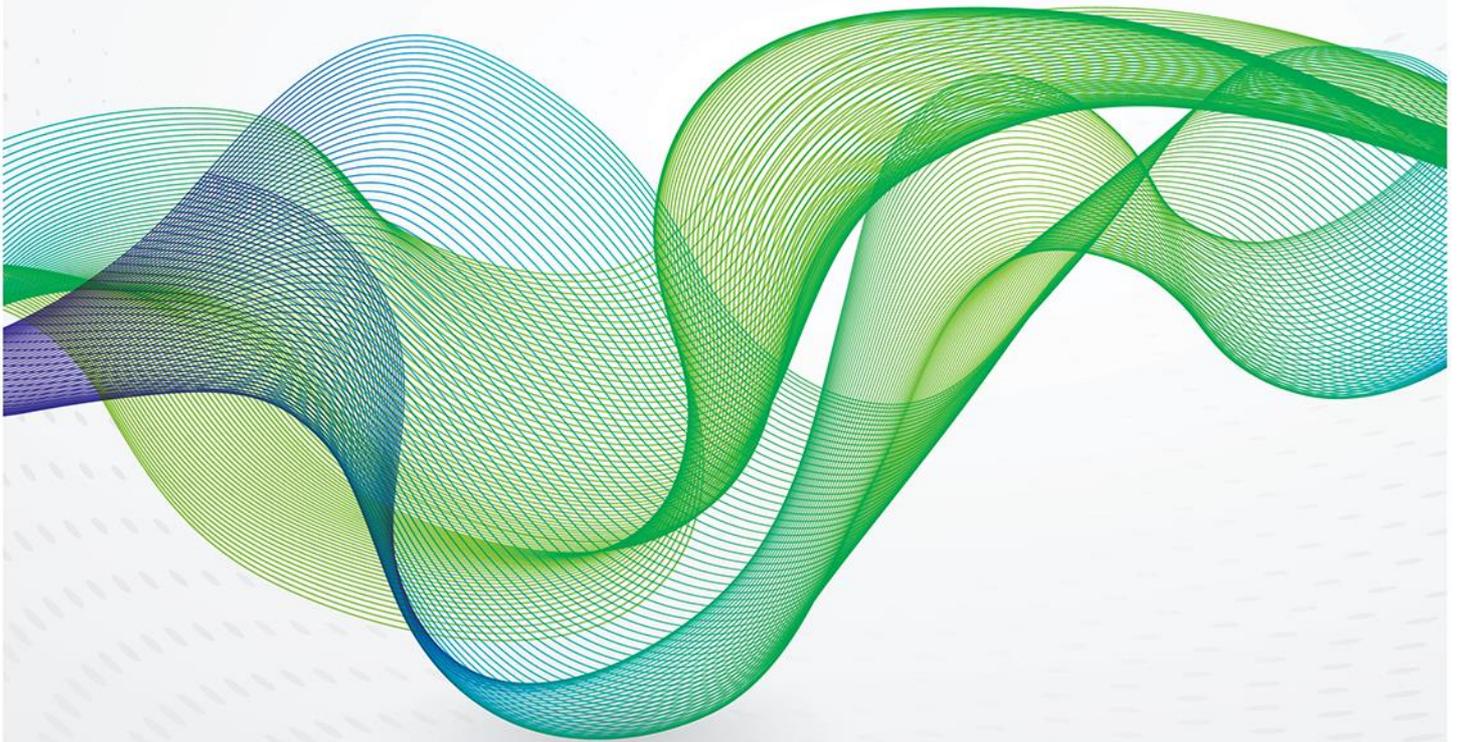


November 2022

China's 20th Party Congress and energy: The good, the bad and the unknown





The 20th National Party Congress of the Chinese Communist Party (CCP) started on 16 October 2022, with President Xi Jinping delivering the Party's work report¹ (the Report), and ending with the unveiling of the new line-up of the seven-member Politburo Standing Committee and other top Party leadership bodies. Not only was Xi Jinping appointed for an unprecedented third term in office, promoting allies to top positions, but the Congress was also eagerly observed for any indication of change in the country's macro-economic and energy policies.

Overall, the Party Congress signalled considerable policy continuity: it highlighted the importance of coal as the backbone of China's energy system but also the commitment to develop renewables—both as a means of energy security and as a way of advancing the country's industrial competitiveness. The focus on security and resilience were extremely prominent in a Report that emphasised a complicated external environment and the rising threat of sanctions.

The Report, much like previous policy documents, is something of a mixed bag. The growing emphasis on coal as a source of energy security and resilience complicates the country's dual carbon targets (to peak emissions before 2030 and strive to reach carbon neutrality by 2060), while the focus on renewables as part of the securitisation of everything suggest China will overshoot its targets, at least with respect to renewable energy. Similarly, zero-COVID and the resulting economic weakness have led to a drop in Chinese emissions, and efforts to rebalance the Chinese economy could further benefit the dual carbon goals if implemented with a focus on efficiency gains. On the flip side, efforts to stimulate the economy by boosting the real estate sector or infrastructure would work against both emissions and rebalancing. In the near-term, the Report and government statements suggest there will be limited change to the country's zero-COVID policy, even as tweaks are being made to travel and quarantine guidelines. Meanwhile, the economic slowdown is leading to lower oil and gas imports—for now a positive in tight global gas markets, but a weakness for oil markets. But efforts to sustain economic activity, even if not at high levels, has already led the government to reverse its policy on oil product export quotas. This, in turn, will alleviate pressure in global diesel markets but raises questions about the government's commitment to its peak emission targets in the refining and chemicals sector.

The Report and outcome of the leadership transition also leave many open questions: to what extent will the new leadership, made up of President Xi's confidantes who seem to support a growing role for the State in the economy, accelerate market reforms? How will the drive for technological self-sufficiency, combined with the US ban on exports of semiconductors impact China's ability to scale up and export existing technologies that are critical for the energy transition?

What is the Party Congress?

While the politics of the Party Congress are beyond the scope of this paper, a number of outcomes are significant to note. First, the importance of Xi's allies and confidantes in the top leadership, and the lack of clear successor to Xi, highlight his ongoing and even increasing importance in policy making going forward. Second, and related to this, the CCP and the Chinese State are aligned behind Xi's vision. This includes, among other features, the centralisation of power in the CCP, an ongoing removal of the separation between Party and State and the related importance of the State-owned economy, as well as the "comprehensive national security", coined in 2014²—all of which have implications for the economy, energy and climate.

While these priorities are not new, they have been reinforced in the Report delivered by President Xi. The Report is therefore first and foremost a political document for domestic Chinese consumption, highlighting the Party's numerous achievements over the past five years as well as the country and the Party's policy agenda for the coming years. These are framed within the context of China's long-term goal of "comprehensively building a powerful modern socialist country" by achieving "modern socialism"

¹ Full text of the report to the 20th National Congress of the Communist Party of China, in English, is available at https://www.fmprc.gov.cn/eng/zxxx_662805/202210/t20221025_10791908.html and Chinese <http://cpc.people.com.cn/20th/n1/2022/1017/c448334-32546343.html>

² "Decoding the 20th Party Congress", Asia Society Policy Institute, <https://asiasociety.org/policy-institute/decoding-chinas-20th-party-congress>

from 2020 to 2035 and “building a great modern socialist country that is prosperous, strong, democratic, culturally advanced, harmonious, and beautiful” from 2035 to 2050. On many levels then, the 20th Party Congress reflects the culmination of a decade of momentum in politics and policy making.

Why the report matters and why it doesn't

While the Report does not offer new or overly detailed policy guidance (for the most part, and should not be expected to), the sequencing, framing and choice of vocabulary can indicate subtle shifts in policy priorities. The language of official central government documents, including the report of the 20th Party Congress, tend towards broad phrases and long lists of policy priorities, not all of which will capture equal attention in practice. Yet it is still possible to capture some key lines of thinking from these documents.

One notable word in the 20th Party Congress Report was “security”, that appeared 91 times (see Figure 1) as issues of national security now range from military matters to social welfare, food and energy. And in the context of rising external challenges, safeguarding national security through greater self-reliance is a top priority³.

Figure 1: Word frequency, 18th-20th Party Congress Reports



Source: OIES

The worsening external environment is central to this Party Congress Report. Whereas in 2017, the Report proclaimed that China “stands tall and firm in the East”⁴, noting that China’s soft power and international influence were on the rise, this Report is more cautious, even as it notes that “China’s international influence, appeal, and power to shape have risen markedly”⁵. China is entering a period “in which strategic opportunities, risks, and challenges are concurrent.” The full Report notes that China is facing “drastic changes in the international landscape, especially external attempts to blackmail, contain, blockade, and exert maximum pressure on China,” though Xi omitted this from his speech. The report goes on to describe China’s challenges, including a “sluggish” global economy and “regional conflicts and disturbances”. It further warns that China should be prepared for “high winds, choppy waters, and even dangerous storms” and will need to strengthen “[m]echanisms for countering foreign sanctions, interference, and long-arm jurisdiction”⁶. This is the first Report that mentions sanctions in the context of China’s national security.

³ The Report notes that “National security is the bedrock of national rejuvenation, and social stability is a prerequisite for building a strong and prosperous China. We must resolutely pursue a holistic approach to national security and promote national security in all areas and stages of the work of the Party and the country, so as to ensure national security and social stability.” P. 45 of the Report

⁴ http://www.xinhuanet.com/english/special/2017-11/03/c_136725942.htm

⁵ Xi Jinping, “Hold High the Great Banner of Socialism with Chinese Characteristics and Strive in Unity to Build a Modern Socialist Country in All Respects”, Report to the 20th National Congress of the Communist Party of China, October 16, 2022, p.11

⁶ Xi Jinping, “Hold High the Great Banner of Socialism with Chinese Characteristics and Strive in Unity to



While the Report also discusses the economy, it does not emphasize growth as strongly as previous reports did, and it makes fewer mentions of “markets”, and far fewer mentions of “reform”. It does focus on economic development and the shift toward more qualitative growth, or China’s “high quality economic development” (discussed below). The energy and environment implications of the Report should therefore be considered in the context of security and of economic rebalancing, suggesting there are some positive developments, some worrying trends and still a large number of open questions.

The securitisation of everything: a boon for the low carbon transition?

The focus on both energy- and industrial security suggest an ongoing emphasis on the low-carbon energy transition. China’s quest for greater energy security increasingly points to an accelerated electrification of end uses, aimed at gradually reducing the country’s reliance on imported oil and gas. While greater dependence on domestically produced energy also points to a prominent role for coal in the energy mix (see below), it also suggests greater enthusiasm for renewables, and potentially nuclear. Increasingly, policy makers’ focus on energy security has gone hand-in-hand with the development of clean energy, especially since President Xi’s announcement of the 2030 carbon peaking and 2060 carbon neutrality commitments, known as the dual-carbon goals.

These dual carbon goals continue to receive prominent mentions in speeches from top leaders, albeit often qualified with cautious language. For example, following several major announcements of early peaking plans from various local officials, in mid-2021, the government instructed that provinces and officials should avoid “campaign style” carbon policies.⁷ Referring to its step-by-step approach to carbon neutrality, the National Development and Reform Commission (NDRC) in mid-2021 indicated that China would first “set up the new, then remove the old,”⁸ indicating that China would continue building fossil fuel infrastructure even as renewable energy scales up and other clean energy policies take effect. This phrase is quoted in the 20th Party Congress report too.

The priorities listed in the Report under carbon neutrality are:

- Regulate both total energy consumption and intensity, especially fossil energy, and gradually shift to the “dual control” system of total carbon emissions and intensity.
- Deepen the energy revolution, strengthen the clean and efficient utilization of coal, intensify exploration and development of oil and gas resources and increase reserves and production, accelerate planning and construction of new energy systems, coordinate hydropower development and ecological protection, actively develop nuclear power in a safe and orderly manner, and strengthen energy production, supply and storage.
- Strengthen the production, supply, storage, and consumption system within the energy sector and guarantee energy security.
- Improve the carbon emission statistics and accounting system, and improve the carbon emissions trading system (ETS).
- Improve the carbon sink capacity of the ecosystem.
- Actively participate in the global governance of climate change.

While this list breaks no new ground, there are several points worth noting. First, similar to the country’s 14th Five-Year Plan for building a modern energy system⁹, the document clearly foresees an all-of-the-above energy strategy for the near term, giving brief but equal mention to all of China’s main energy sources, roughly in order of their current size and importance.

Build a Modern Socialist Country in All Respects”, Report to the 20th National Congress of the Communist Party of China, October 16, 2022, p.46

⁷ “China to rectify “campaign-style” carbon reduction: NDRC”, August 2021, http://www.xinhuanet.com/english/2021-08/17/c_1310132162.htm

⁸ Xiaoying You, “China issues new ‘single-game’ instructions to guide its climate action,” Carbon Brief, 4 August 2021, <https://www.carbonbrief.org/china-issues-new-single-game-instructions-to-guide-its-climate-action/>.

⁹ http://www.nea.gov.cn/1310524241_16479412513081n.pdf



- For coal, “clean and efficient utilization” omits any mention of expanding mines or adding coal capacity for meeting peak loads or balancing renewables—though these are all present in other recent documents, including the 14th Five Year Plan.
- For oil and gas, the document specifies expanding both production and reserves, in line also with previous policy documents that highlight the need to ensure supplies, while giving fewer indications about the demand outlook and if/how emissions are to be reduced.
- For new energy systems, which comprise solar, wind, and storage, the report foresees an “acceleration,” whereas for hydro, the emphasis is on balancing development with ecology.
- For nuclear, the language is slightly more cautious but still calls for active development, in line with recent acceleration underway in the sector.

On environmental protection, the document again endorses the strategy of building a Beautiful China, a goal established by President Xi in 2017, and adds stirring language about ensuring harmonious coexistence between humanity and nature. More concretely, the section contains a full paragraph related to air quality, promising to basically eliminate heavily polluted air quality episodes. Interestingly, while the Report and many other high level documents tend to remain extremely vague, this Report mentions maintaining the fishing ban in the Yangtze River, offering surprising detail on issues of water pollution¹⁰.

Air pollution has fallen dramatically in Beijing and other major cities over the last 10 years, and government officials see the War on Pollution as an example of successful environmental governance. (Indeed, with its mix of campaign elements, propaganda, strict enforcement across all economic fields, and industrial policy, the War on Pollution may have served as a model for the Zero Covid policy.) Yet air pollution remains an ongoing problem, despite the progress achieved so far. Continued efforts on this issue will support the clean energy transition, not so much in the power sector, but rather in transport and industry, which contribute most significantly to air quality problems. Actions to solidify environmental enforcement in industry while also accelerating the transition to electric vehicles for heavy-duty transport are likely make the most near-term difference in improving air quality.

That said, the Report (and the 14th Five Year Plan for a modern energy system) also suggests that China will not begin to phase out coal until the Chinese government feels confident that there is enough energy to fuel its economic development. But according to official plans, this would only begin during the 15th Five-Year Plan period (2026-2030), and so far there is no mention of peaking or phasing out oil and gas. Meanwhile, the focus on the security of supply chains and efforts to shift toward higher-value added growth, could also support China’s low carbon energy transition to the extent that China’s drive for modernisation and self-sufficiency will further strengthen its commitment to developing and deploying the industries of the future. The extent to which China will be able to scale up existing technologies developed in the West and export them is, however, increasingly uncertain.

Reiterating “high quality economic development”

While the 20th Party Congress report devotes less attention to economic growth (with “economy” cited less frequently in general) than prior such documents, it nevertheless continues to call for systematic and thoroughgoing changes to the economic structure. Such calls are in line with past policy documents going back more than ten years.

In the energy and environmental fields, both Chinese and international analysts generally recognize that China’s economic structure, with its emphasis on heavy industry and infrastructure, has led China down an energy-intensive and emissions-intensive development pathway. Policy makers view basic industry and large-scale infrastructure projects as both instruments for development as well as short-term economic stimulus measures. They are also among the economic policy tools available to officials seeking to meet economic targets and win promotion. Large, state-owned enterprises and local officials

¹⁰ A similar level of detail in the Report can also be found on food security and the need to develop the seed industry.

work together to channel investment into these fields in support of mutual interests, creating an imbalanced economic and energy structure.

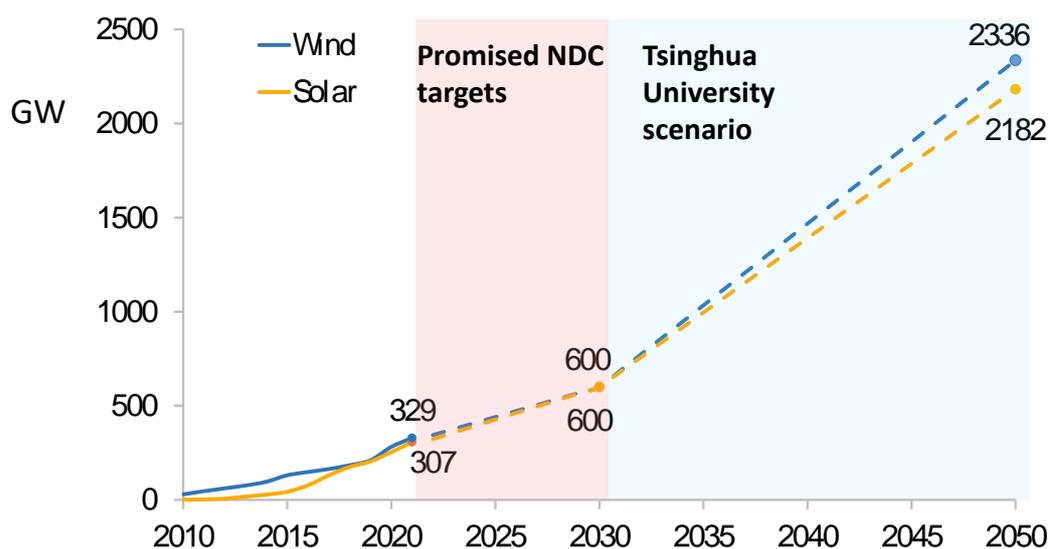
But there is a growing tension between local officials' pursuit of short term growth, which tends to be energy-intensive, and the longer term focus, which is clearly toward "high-quality development". Indeed, "high-quality development" was only mentioned once at the 19th Party Congress. This time, a whole section of the Report is dedicated to it, suggesting that the Party will seek to adjust the economic structure away from energy-intensive industries rather than focus on headline growth figures. In the energy space, this means reducing industrial energy intensity. But this does not mean that growth is no longer important. Economic activity will be geared toward "high-quality development" and "common prosperity" which aim to increase domestic demand and enhance domestic supply chains to mitigate external shocks. In this context, achieving technological self-sufficiency is also key¹¹.

A tech- tonic shift?

In the energy space, the Report calls for "coordinating the structural adjustment of industry" and "promoting ecological, economical, and intensive green and low-carbon development". This is easier said than done, at least at the level of the whole economy. While a portion of the report praises past progress in "high quality economic development"—citing booming R&D spending, innovation in biotech and aerospace, high-speed rail infrastructure, and other elements—the document also lists problems in these fields. Specifically, it reiterates language from the 14th Five-Year Plan for Science and Technology Development that calls scientific and technology innovation "not strong." The Report also cites unspecified "bottlenecks" in "high quality development."

In addressing concerns around supply chains, the Report clearly emphasises China's modernisation and self-sufficiency drive, particularly in strategic technologies such as semiconductors. Though renewable energy and electric vehicles aren't specifically mentioned in the report of the 20th Party Congress, these are currently among the major bright spots in China's economy. Wind and solar are poised for major growth, with capacity potentially doubling during the 14th Five-Year Plan period (2021-2025). This would put China far ahead of its stated 2030 wind and solar targets, and on track for a steady low-carbon energy transition in the power sector (see Figure 2).

Figure 2: China wind and solar additions, 2030 targets, and Tsinghua 2050 carbon neutral scenario



Source: Chart from Anders Hove, GIZ 2022; 2030 targets assume equal solar-wind split of 1200 GW combined target; historical data from National Energy Administration; 2050 model figures from Institute for Climate Change and Sustainable Development at Tsinghua University, April 2021

¹¹ In this context, the politics following the leadership transition matters. Do China's

In transportation, China is also far ahead of its target for a 20 per cent share of new energy vehicles by 2025. That target will be surpassed this year. EV technology is improving rapidly enough that it could begin to make inroads into the field of truck transport, which accounts for a significant fraction of transport emissions and oil consumption.

For the clean energy transition, for now, China's existing development model may be sufficient. But the US Commerce Department's prohibitions on exports of semiconductor chips and other high-tech equipment to China¹² raise significant question marks. While China can already compete with industry leaders across a range of leading-edge technologies, global semiconductor production is still dominated by a few corporations, none of them Chinese¹³. The new export controls ban the export to China of cutting-edge chips, as well as chip design software, chip manufacturing equipment, and US-built components of manufacturing equipment. Moreover, the prohibitions cover exports from US firms and any company worldwide that uses US semiconductor technology, which would cover all the world's leading chipmakers.

Semiconductors are integral to renewable energy development and deployment¹⁴, but older chip technologies—including chips for systems such as aerospace, automotive, and infrastructure systems—may not be impacted by the latest measures¹⁵. That said, even though China's existing production of renewables and automotive systems may not be impacted, its ability to further develop new technologies in areas such as wafer fabrication facilities or fabs may be constrained given that China currently lacks the technology required to make modern, advanced chips.

The Party Congress Report clearly identifies the shortcomings in China's innovation and aspires to plug these gaps, but the extent to which it will be successful remains unclear. As we noted previously¹⁶, China's energy sector, dominated by SOEs, can mobilize immense resources behind newer technologies once these have reached the pilot or commercial stage, which has helped China reach a leading position in certain modular, manufacturing-intensive technologies like solar and batteries. Meanwhile, for other technology fields, such as CCUS (carbon capture, utilisation and storage) and methane abatement for instance, institutional limitations and restrictions on private sector participation could direct investment away from user-oriented or demand-focused technologies. The Report does not reflect on any solutions to China's innovation "bottlenecks".

Elements of market, but administrative controls lead

The Report provides almost an equal balance of attention to markets and administrative measures, highlighting in the first sentence the importance of China's longstanding energy consumption and intensity quotas, then pivoting to improving the emissions trading system (ETS). Notably, it does not mention the role of energy markets or price reforms in the energy sector. These reforms have proceeded slowly, and in the power sector—which will play an important role in decarbonizing—China has a target of 2025 for a national market design and 2030 for its implementation¹⁷.

Though specific market reforms continue to be released, they don't point in a straight line towards the long-expressed goal of making markets play a "decisive role" in allocating energy resources. For

¹² <https://www.bis.doc.gov/index.php/documents/about-bis/newsroom/press-releases/3158-2022-10-07-bis-press-release-advanced-computing-and-semiconductor-manufacturing-controls-final/file>

¹³ Gregory Allen, "Choking Off China's Access to the Future of AI", CSIS Report, 11 October 2022, <https://www.csis.org/analysis/choking-chinas-access-future-ai>

¹⁴ Neha Lyka Muttumthala & Apurv Yadav, "Role of Semiconductors in Various Renewable Energy Systems", 2 April 2022

¹⁵ Gregory Allen, "Choking Off China's Access to the Future of AI", CSIS Report, 11 October 2022, <https://www.csis.org/analysis/choking-chinas-access-future-ai>

¹⁶ For a discussion about China's energy governance system and its implications for innovation see Anders Hove, Michal Meidan, Philip Andrews-Speed, "Software versus hardware: how China's institutional setting helps and hinders the clean energy transition", OIES paper CE2, December 2021, <https://a9w7k6q9.stackpathcdn.com/wpcms/wp-content/uploads/2021/12/Software-versus-hardware-how-Chinas-institutional-setting-helps-CE2.pdf>

¹⁷ For some background on power sector reform, see David Sandalow, Michal Meidan, Philip Andrews-Speed, Anders Hove, Sally Qiu and Edmund Downie, Guide to Chinese Climate Policy 2022, <https://chineseclimatepolicy.oxfordenergy.org/book-content/domestic-policies/power-sector-reform/>

example, during the power shortages in 2021 caused by market pricing of coal while electricity prices remain regulated, policy makers adopted strict caps on physical coal prices and undertook administrative actions to boost coal supplies, while ostensibly liberalizing electricity prices to account for higher fuel costs. Since October 2021, all electricity should be traded in the market, mainly through bilateral mid-to-long-term contracts between generators and industrial consumers, with grid companies acting as proxy for smaller consumers. In practice, since prices simply rose by 20 per cent to the newly established price cap, based on a published benchmark coal tariff, electricity prices remain administratively controlled for many consumers, with the exception of energy-intensive industries that face no cap. Energy security is a higher priority than market reforms, and in this setting, the state's approach has been to launch new instruments that have elements of markets while keeping administrative controls in the driver's seat.

In a press release responding to a question from individual Congress attendees, China's National Energy Administration also signalled a gradual and cautious approach to markets. To a question regarding whether the government can integrate carbon markets, power markets, and green electricity certificates, the National Energy Administration listed the recent policy releases in each of these three fields, and essentially stated that for now the task is to further develop these markets separately. This approach is consistent with the tone and focus of the Congress Report.

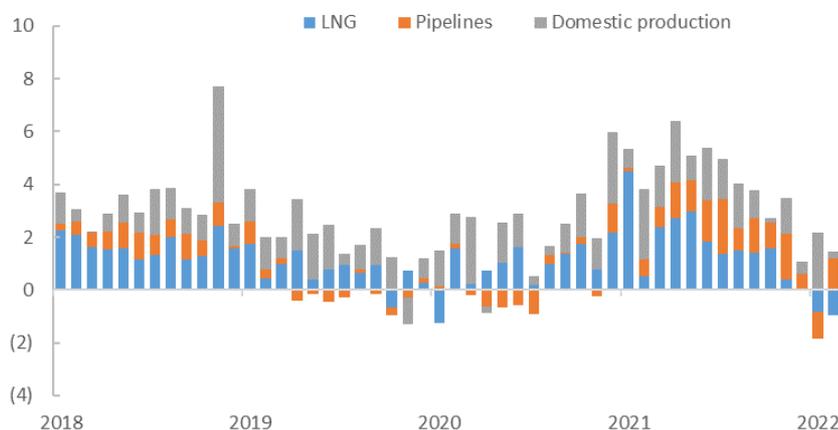
It's the economy, stupid!

The Report, statements at the time of the Party Congress and policy actions in the run up to it offered diverging hints about the short-term macroeconomic outlook and the government's appetite for growth support.

The Party Congress and statements following it have reiterated and made it clear that zero-COVID is unlikely to change materially. While the government is tweaking its response and looking to reduce quarantine times for international travel and domestic outbreaks, restrictions are unlikely to be lifted completely soon. This, in turn, suggests that economic activity will pick up only gradually and that economic growth, as highlighted above, is not the Party's main priority at the moment.

Weaker economic activity has already led to a fall in emissions and while the ongoing restrictions bode well for China's carbon footprint, this could be reversed as and when economic activity recovers. The nuance from the Congress Report suggest that growth will recover, even though it will not be at the frenetic pace of previous stimulus programmes. Oil and gas demand in 2022-to date have been impacted by the zero-COVID policy's impact on economic activity. In the year-to-August 2022, implied gas demand at 248 bcm was 6.5 bcm (or 3 per cent) lower y/y (see figure 3). Weaker industrial activity, alongside high import prices, have weighed on gas consumption in industry.

Figure 3: Gas supplies to China, y/y change, bcm

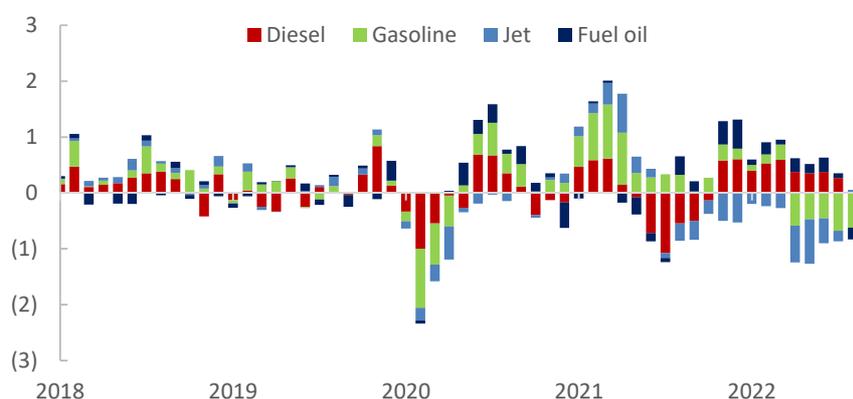


Source: Customs, NBS, OIES

Meanwhile, the availability of coal, hydro and renewables have limited the scope for gas use in the power sector. There are few signs these trends will change in the near term, barring a very cold winter that could lead to a small uptick in gas—and likely LNG—demand. 2023 is shaping up to be another year of weak gas demand in China, although consumption is likely to rise as economic activity restarts slowly. That said, with a further ramp up in flows through the Power of Siberia and higher domestic production, incremental LNG demand could remain muted.

At the same time, oil demand in the year-to-August is estimated to have fallen y/y by 0.18 mb/d (1.2 per cent). Gasoline and jet fuel demand have been curtailed by mobility restrictions, with NDRC estimating a 6.4 per cent y/y fall in gasoline use and a massive 29 per cent drop in jet consumption¹⁸. Diesel demand, according to NDRC, has picked up, rising by close to 14 per cent y/y in the first eight months of the year.

Figure 4: Implied product demand, y/y change, mb/d



Source: Customs, NBS, OIES

Even though policies focused at generating economic growth have thus far been limited, the government's award of a large batch of oil product export quotas in October 2022 seemed to suggest a U-turn on its commitment to gradually reduce outflows of oil products, per the 14th Five Year Plan for the petrochemical and chemical industries¹⁹. It remains to be seen, however, if the boost to refining activity through the large award of export quotas represents a fundamental shift in government policy. Given that the cap on refining capacity, the shift away from oil products to chemicals and plans to reduce exports have been discussed in the 14th Five Year Plan and Action Plans to peak emissions²⁰, the product export quota is more likely a one-off to help state-owned refiners capitalise on lucrative exports given tightness in the global market. It is more likely to reflect a short-term adjustment rather than a fundamental shift in policy. But with government efforts to calibrate growth, the extent to which Beijing will pursue the structural adjustments and linkages between economic growth and energy consumption remain to be seen. On paper, the Party has not changed its approach.

All-of-the above approach

The government's focus on supply security points to a need to boost domestic supplies of all energy sources, but it does not necessarily entail a strong growth in demand for all energy sources. To sum up, the 20th Party Congress kept us in suspense to learn what we already knew: security is the main priority. Yet, among the other policy priorities that still make the second cut, environment and carbon are high on the list. Energy policy means an all-of-the-above approach for now, emphasizing efficiency for coal, expanded output for oil and gas, and accelerated renewables. Market reforms are needed, but an acceleration may not be in the cards.

¹⁸ https://www.ndrc.gov.cn/fgsj/tjsj/jjyx/mdyqy/202209/t20220929_1337673.html?code=&state=123 OIES data, based on NBS, Customs and our estimates point to a slightly smaller fall in jet consumption, at 24 per cent lower y/y.

¹⁹ http://www.gov.cn/zhengce/zhengceku/2022-04/08/content_5683972.htm

²⁰ http://www.gov.cn/zhengce/content/2021-10/26/content_5644984.htm