

January 2020



China: Key themes for 2020

In 2019, markets focused on China's slowing GDP growth, which fell from 6.6 per cent to 6.1 per cent and on the trade war with the US. The impact on energy demand and trade flows was a key preoccupation throughout the year as negotiations faltered and tariffs piled up. In the meantime, bilateral relations soured, highlighting the structural nature of competition between the US and China with the Trump administration working, for example, to limit Huawei's role in Western telecom networks. Washington's 'zero tolerance' campaign on Iran included sanctions on Chinese traders and shippers just as sanctions on Venezuela further constrained China's crude supplies. The combination of a slowing economy and an uncertain geopolitical outlook meant that markets had to contend with slowing demand growth, especially for natural gas, alongside shifting trade flows and new sanctions-related risks. Within China, concerns about import dependency prompted a focus on domestic resources and particularly on 'clean' coal.

In 2020, many of these themes will remain relevant, although the focus will change. The 'phase 1' deal signed between the US and China is likely to give both sides some breathing space in a relationship that is otherwise destined to escalate. This temporary reprieve will give Beijing time to review its reliance on US technologies, the US-dominated financial system and commodity markets, as we discuss in our first theme. The US and Chinese economies cannot fully decouple, but the two countries will increasingly compete over leadership in standards in areas such as clean-tech and digital solutions. How this rivalry unfolds will have implications for companies and third countries—some of which may benefit from dislocations created by boycotts, tariffs or sanctions while others could get caught in the crosshairs.

But if Beijing has indeed managed to buy some time with the trade truce, it will be able to focus on some of its growth and development targets for 2020 and wrap up the 13th Five Year Plan (2016-2020), before it reassesses its energy and industrial policies ahead of the next plan, (2021-2025). As we detail in our second theme, the government's need to deliver growth of around 6 per cent could support oil and gas demand—as the broader economic slowdown is likely to be softer than in 2019— while a last minute rush to promote coal-to-gas switching alongside new regasification terminals could support natural gas and LNG demand.

That said, at the time of writing, the spread of a new coronavirus has led to an effective quarantine of Wuhan, China's seventh-largest city, with travel out of the city cancelled ahead of the Lunar New Year to stem the contagion. Wuhan's gasoline and diesel demand was estimated at 25-35 thousand b/d (each) in 2019, with natural gas use estimated at 1-1.5 bcm. Should the government's measures prove ineffective, and China finds itself facing a severe epidemic, a further slowdown could weigh mainly on air travel, but also on industrial production and consumption. It is still too early to tell.

Indeed, there are also downside risks to growth. Alongside Beijing's quantitative goals for the year, the end of subsidies (that we discuss in theme four) could weigh on some of the emerging industries such

as renewables and new energy vehicles (NEV). More fundamentally, though, this will be a test of China's industrial policies and ability to reshape the government's role in the economy.

A slowdown in the NEV market and in the pace of renewable capacity additions will raise concerns about China's commitment to its environmental goals. These will be exacerbated by the fact that import dependency woes have also led China to refocus on domestic resources, especially 'clean' coal. While this notion seems like an oxymoron, Beijing's focus is on air quality rather than carbon emissions, and the widespread use of both pollution abatement equipment and ultra-low emissions technology in its coal-fired power plants allow the government to meet its twin goals of energy security and the war on pollution

Finally, the decelerating economy and escalating geopolitical tensions with the US have raised concerns that China's structural reforms—the shakeup of state-owned enterprises; price reform and market liberalisation—have all but stalled as Beijing retreats into even more deeply entrenched state control. While some progress has been made on creating new opportunities for private and foreign companies, limited movement on 'mixed ownership' and price reforms—that were also listed as priorities in the 13th FYP—suggests additional change is forthcoming, as we explain in our fifth and final theme. That said, for Beijing, the role of markets is only to organize economic activity and improve their efficiency under the state's leadership, suggesting that liberalisation will still happen with the state's very visible hand, albeit with a slightly lighter touch. Yet as China starts to level the playing field, markets should keep in mind that tweaks to China's corporate structures and pricing mechanisms can lead to unexpected market distortions. And as China's weight in global markets increases, so do the ripple effects.

1. US-China tensions: the next frontier

Markets have been encouraged by the ‘phase 1’ deal signed between the US and China on 15 January 2020, and the prospect of further negotiations to reach a ‘phase 2’ agreement on the long list of outstanding issues. And while last year, markets were wondering whether or not US crude and LNG could flow to China, now they are debating how China will absorb all the oil, LNG and coal that it has pledged to buy from the US. Ironically, though, when duties were imposed on US commodities, markets found a way to reroute them. Now, political fiat will have to defy market fundamentals—as China has yet to lift tariffs on US energy goods or grant exemptions to buyers—to ensure enough crude, LNG, LPG, ethanol and coal flow from the US to China. While the agreement includes a feasibility clause which states that ‘purchases will be made at market prices based on commercial consideration’, overall energy flows from the US to China are set to increase. The deal will also support market sentiment and potentially lead to a small recovery in manufacturing activity.

The question for 2020 is how long can the trade truce stem the tide of escalation? The answer to that will depend heavily on electoral dynamics in the US and the extent to which Trump will perceive and be able to sell the ‘phase 1’ deal as a win. Beijing seems to have made some concessions to reach the deal given the political importance of 2020 (see next theme) and its desire to buy time. Indeed, few in the Chinese elite seem to believe that US-China relations can reverse course, so the focus is on stabilising the economy in the near-term while preparing for an inevitable larger confrontation with the US in the medium-term. But there are still a large number of factors that could undermine the trade truce, including moves by the US Congress to sanction Chinese tech companies or to slow/restrict Chinese access to US capital markets. An escalation in the South China Sea or more forceful attempts to cut off Huawei from US and European telecommunication networks could also undermine the fragile truce.

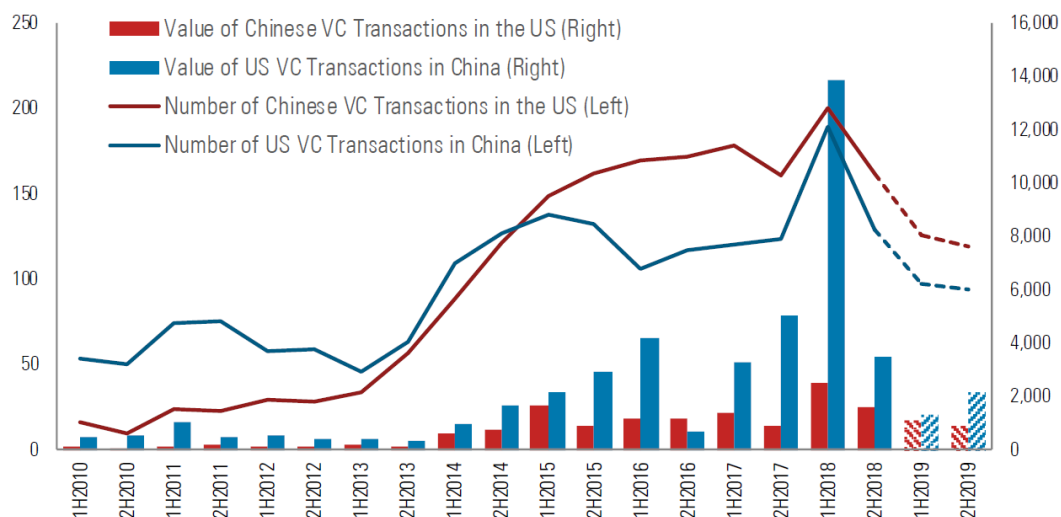
At the same time, US sanctions on Iran and Venezuela have entangled Chinese firms in ways that would have been unthinkable in the past, out of consideration for the health of the broader relationship. It remains to be seen whether the ‘phase 1’ trade deal can generate enough goodwill to make all other sanctions and bans (on Huawei and Cosco for example) go away. But critically, the risks are moving beyond trade flows to technology and capital. China will increasingly seek to develop its national capabilities in hard power, in innovation and global finances. In this context, additional sanctions, export controls and boycotts could involve a growing number of sectors, with third countries and companies potentially benefitting from the dislocations these create or getting caught in the crosshairs.

China’s pledges to roll out a digital currency, for example, will be a key theme to watch in 2020 and beyond. Even though neither the yuan or the cryptocurrency (which currently seems to be a state-issued e-currency) will become the world’s main reserve currency any time soon, such moves, alongside efforts to develop alternative systems to SWIFT—which enables money transfers across borders—will raise concerns in the US and elsewhere about the de-dollarisation of trade. As tensions shift increasingly to innovation and high value-added manufacturing, they will increasingly involve competition over standards and leadership in clean-tech and digital solutions.

Underneath the calmer surface of US-China relations in 2020, both sides will be gearing up for the next round. So there is no guarantee that tensions won’t ratchet back up in the following years especially since a tougher stance on China is now a bipartisan position. If Trump is re-elected, his attitude could become increasingly aggressive. A Democratic administration is equally likely to embrace a policy of strategic competition with China, but would also give greater prominence to partners and allies in managing its approach. This would likely be welcomed in the EU, which has also started rethinking its China policies and framing the relationship as one of competition and ‘systemic rivalry’¹.

¹ The EU used the term ‘systemic rival’ in its EU-China strategic outlook, 12 March 2019, <https://ec.europa.eu/commission/sites/beta-political/files/communication-eu-china-a-strategic-outlook.pdf>

Figure 1: Venture Capital transactions between China and the US
 Number of transactions (left), value in millions of US dollar (right)



Source: Rhodium Group based on Pitchbook, Crunchbase, Bloomberg and proprietary research. Transactions count includes all funding rounds with at least one participating Chinese- or US-controlled venture fund (usually determined by general partner nationality) or other entity; value reflects the estimated proportional shares of each funding round attributable to Chinese or US investors. 2019 data are preliminary only.

2. Which political targets matter the most?

2020 is particularly important in terms of political goals as it marks the end of the current five-year plan (the 13th FYP, 2016-2020²) and is also the Chinese Communist Party's (CCP) target year for achieving a 'moderately well-off society'. While President Xi has downplayed the importance of GDP growth targets compared to environmental protection and financial stability, he inherited from his predecessor a pledge that China's national GDP would double between 2010 and 2020. Thanks to the economy's strong performance in the early 2010s, and despite the slowdown in 2019, Beijing needs roughly 6 per cent GDP growth in 2020 in order to meet this. The government will release its GDP growth target for 2020 in March, during the annual parliamentary session, but consensus estimates forecast that China's economy will expand by close to 6 per cent this year. In terms of headline figures, then, while the economic slowdown is set to continue, the proportional drop from 2019 levels is unlikely to be as steep as the fall from 2018 (when growth slowed from 6.6 per cent to 6.1 per cent in 2019).

In addition to China's growth and development pledges, the 13th FYP is widely viewed as a transformative period in China's shift to a consumption-led, higher value-add economy, which in turn requires deep structural reforms. But these new sectors of growth differ from the traditional growth drivers in terms of economic impact and commodity demand. The question for 2020 is: which political goals matter the most? Judging by Communist Party's Central Economic Work Conference (CEWC) which convened in mid-December 2019 to set out the 2020 priorities, and to a certain degree by the concessions made in the 'phase 1' deal, Beijing is looking to cushion the slowdown in growth. But when considering pledges to advance market liberalisation, price reform and to phase out subsidies (see themes 4 and 5), there are potential downside risks to growth, especially in some of the emerging industries such as renewables and new energy vehicles. Infrastructure spending will be a key uncertainty, as the government has rejected further loosening in the property sector and local government finances are deteriorating. Beijing has also ruled out a major monetary stimulus, although it will seek to reduce financing costs and support the private economy.

What does this mean for energy demand? In 2019, the economic slowdown weighed on both oil and gas. Demand for the main four oil products (gasoline, diesel, jet and fuel oil) between January-November (as full year data has yet to be released) increased by 0.15 mb/d, a sharp decline from close to 0.40 mb/d over the same period in 2018, while demand for naphtha, LPG and bitumen supported growth³. Overall, however, product demand rose by an estimated 0.40 mb/d, slowing slightly from the 0.50 mb/d increment recorded in 2018. This year, with improved market sentiment and government policies supporting consumption, demand growth should be spread more evenly among products even as overall oil demand growth will likely remain roughly flat. A slight recovery in the Chinese car market, after two straight years of declining car sales, alongside increased domestic travel (assuming the impact of the coronavirus on oil demand remains contained) and a small uptick in manufacturing activity could support the main four products and petchems, offsetting weakening bitumen demand growth.

Gas demand growth also suffered in 2019 from the economic downturn and the trade war. According to CNPC, China's gas demand in 2019 reached 304 bcm, a y/y increase of 26.5 bcm (or 9.6 per cent), compared to a 40 bcm y/y uptick in 2018. Weaker industrial demand weighed on gas consumption given that industry is the largest consumer of gas in China, while the coal-to-gas switch also slowed. This was due to end-user concerns about costs, as many subsidy programmes ended, as well as government concerns about the availability of gas supplies which led it to focus on 'clean' coal. At the same time, LNG importers limited their buying given the uncertainties surrounding the creation of the midstream company (initially expected in mid-2019 and finally launched in December 2019) and the related changes to cost structures. Finally, some suppliers also hiked pipeline prices to industrial users to offset losses made from selling imported gas.

² For some context on the 13th FYP see Michal Meidan, China's 13th Five-Year Plan: Implications for Oil Markets, Oxford Energy Comment, June 2016, <https://www.oxfordenergy.org/wpcms/wp-content/uploads/2016/06/Chinas-13th-Five-Year-Plan-Implications-for-Oil-Markets.pdf?v=79cba1185463>

³ See also Michal Meidan, "Four misconceptions about China's oil demand", OIES Comment, November 2019, <https://www.oxfordenergy.org/publications/four-misconceptions-about-chinas-oil-demand-in-2019/?v=79cba1185463>

While CNPC and Sinopec both expect another slow year of gas demand growth, pegging it at around 8 per cent, or another 25 bcm increment, there may be a (small) upside to this. Improved business sentiment and an uptick in manufacturing activity could support industrial demand while the coal-to-gas switch could regain some momentum. Back in 2017, the central government issued a Winter Clean Heating Plan in the Northern Region running through 2021⁴, followed by a Blue Sky Action Plan (2018-2020)⁵ but many subsidy schemes were designed to run for only three years. With subsidies drying up in 2019, some cities slowed or abandoned coal conversions and with government rhetoric seeming increasingly tolerant of ‘clean’ coal, there were few reasons to push for additional conversions. But as both plans come to an end—and even though they include few numerical targets—air quality concerns could prompt local governments to subsidise further conversions, especially given that progress on PM 2.5 reductions in 2019 was the slowest since the start of the war on pollution. Moreover, the central government could step in with further support including direct subsidies or through tax reforms that will allow local governments to retain a greater share of tax revenues, thereby shoring up local government finances. As local governments take stock of their air pollution and coal production targets, they may look to encourage gas use once more. This will also be facilitated by new supplies (via the Power of Siberia from Russia and new regasification terminals). Overall, even though China is still likely to fall short of its aim for gas to account for 10 per cent of the energy mix in 2020 (which would be roughly 360 bcm), a growth outlook of 30-35 bcm y/y is possible.

Figure 2: Oil demand, y/y change, mb/d

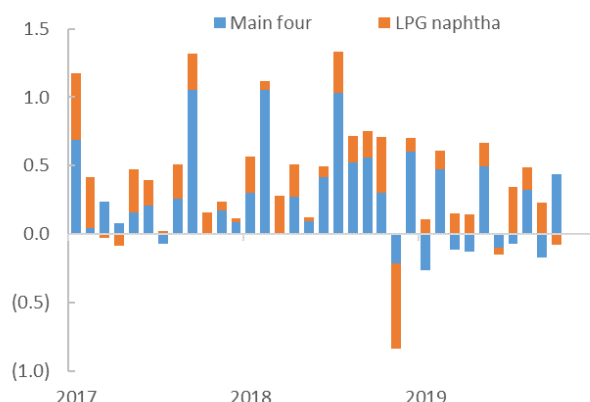
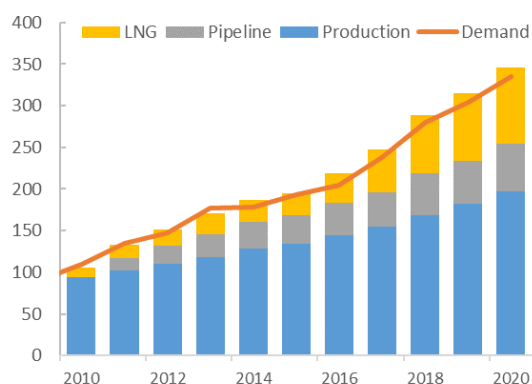


Figure 3: Gas balances, bcm



Source: China Customs, NBS, OIES

⁴ Winter Clean Heating Plan in the Northern Region, NDRC 2017, http://www.gov.cn/xinwen/2017-12/20/content_5248855.htm

⁵ Notification on the Three-Year Plan on Successful Defense of Blue Sky, State Council, 2018 http://www.gov.cn/zhengce/content/2018-07/03/content_5303158.htm

3. The oxymoron of 'clean' coal

In 2019, as the coal-to-gas switch slowed and concerns about energy security resurfaced, coal made a comeback. Between January and November 2019, coal output reached 3.37 Mt, a y/y increase of 5 per cent, compared to a 1 per cent rise the previous year. Over the same period, imports totalled 297 Mt, higher y/y by 10 per cent, compared to a 9 per cent increment the previous year. Meanwhile, new installed thermal capacity reached 34.2 GW between January and November 2019, a 4 GW y/y increase after a y/y drop in 2018. To be sure, given that coal accounted for 58 per cent of the energy mix and 55 per cent of installed power capacity in 2018, speaking of a 'comeback' is overstated, as coal never really went away. Still, in 2019, government support for additional coal production and use seems to have increased dramatically. This is because support for the domestic coal industry helps tackle unemployment, which has become a growing concern in light of the economic downturn and import dependency, given the abundance of domestically produced coal. Indeed, in October 2019, Premier Li Keqiang, addressing the National Energy Commission, stressed the need to speed up the construction of large-scale coal transportation and electricity transmission infrastructure, promoting "safe and green coal mining" as well as the "clean and efficient development of coal-fired power".

In his previous address to the NEC, Li focussed on renewables, suggesting a shift in policy thinking over the course of 2018 and 2019. Indeed, after the initial coal-to-gas switch of 2017 resulted in severe gas shortages in the winter of 2017-2018, the government tolerated more coal burn and in its subsequent Winter Clean Heating plan (2017-2021) emphasized that clean heating could also be achieved with clean coal. Moreover, since the dash for gas highlighted supply and infrastructure shortages, Beijing told local governments to proceed with coal conversions only when supplies were readily available, placing the onus of supply security on local officials. With slowing economies and dwindling coffers, local governments have been increasingly limiting subsidies for gas and turning to 'clean' coal.

But is there such a thing as 'clean' coal? For China's decision makers and coal-fired companies there is: Over the past five years, they have spent extensively to retrofit the domestic fleet with pollution abatement equipment, which helps reduce local pollutants including nitrogen oxides (NO_x), sulphur oxides (SO_x) and particulate emissions. Beijing's focus is on air quality, rather than carbon emissions, and given that an estimated 810 GW of China's 1020 GW coal power generating capacity is ultra supercritical, using ultra-low emission technology, the Chinese coal industry believes in 'clean' coal.

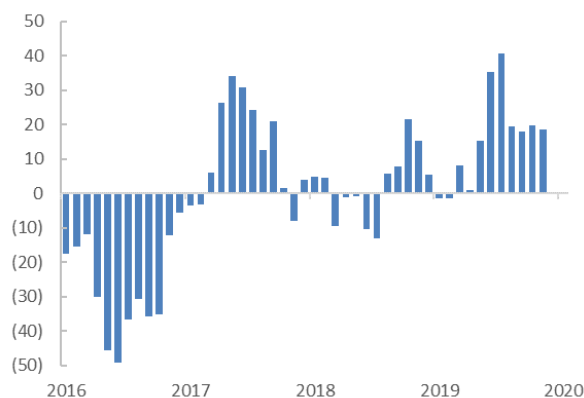
The increased reliance on coal was also facilitated by the fact that in 2019 China had already beaten some of its carbon targets, giving it room, from a state planning perspective, to take the foot off the gas. For example, already in 2018, China's carbon intensity (CO₂ generated per unit of economic growth) had fallen by 45.8 per cent from 2015 levels, reaching the 45 per cent reduction target three years ahead of schedule. The share of non-fossil fuels in the energy mix reached 14.3 per cent in 2018, well on track to exceeding its 15 per cent target in 2020. And since China's Paris target is a moveable feast (it has pledged to peak emissions by 2030, without committing to an actual cap), it has room for manoeuvre as it balances a number of priorities, including economic growth, energy security and air pollution control.

From Beijing's perspective, China is still on the right side of its domestic and international targets, but the role of coal in its domestic energy mix and in its export programmes will become an increasingly contentious issue, especially if by year-end the share of coal in the energy mix will have increased. Within China, the debate will intensify as decision-makers start formulating their targets for the 14th FYP. The coal lobby will play the energy security and employment cards, promoting coal-to-chemical projects such as coal-to-gas and coal-bed methane that can help tackle local air pollutants, even though their carbon footprint remains huge.

The renewables lobby, on the other hand, will argue that coal-fired power capacity should become a peak load supplier, paving the way for the country to gradually phase out its less efficient plants and benefit from the falling cost of renewables. Internationally too, there will be growing scrutiny of China's contribution to the world's ability to limit global warming to 1.5 degrees Celsius. So while China may

win the war to dominate global clean technology exports in its rivalry with the US (see first theme), it may lose in the court of global public opinion if it continues to pursue 'clean' coal.

Figure 4: Coal production, y/y change, Mt



Source: NBS

Figure 5: Changes in pollutant levels, 2015 to 2019, per cent

	PM2.5	PM10	NO2	SO2	CO	Ozone
Anhui	-18%	-15%	8%	-55%	-24%	60%
Beijing	-48%	-35%	-27%	-67%	-46%	1%
Chongqing	-30%	-32%	-12%	-53%	-24%	20%
Fujian	-15%	-20%	-14%	-36%	-19%	17%
Gansu	-30%	-30%	-17%	-52%	-39%	5%
Guangdong	-19%	-13%	-3%	-37%	-18%	8%
Guangxi	-23%	-18%	-1%	-37%	-18%	-2%
Guizhou	-30%	-33%	-17%	-49%	-16%	10%
Hainan	-20%	-16%	-13%	-4%	-12%	14%
Hebei	-34%	-30%	-16%	-62%	-33%	19%
Heilongjiang	-32%	-27%	-27%	-54%	-28%	0%
Henan	-23%	-26%	-16%	-70%	-38%	23%
Hubei	-32%	-31%	-8%	-55%	-25%	13%
Hunan	-20%	-29%	-7%	-62%	-21%	12%
Jiangsu	-28%	-27%	-8%	-63%	-22%	5%
Jiangxi	-20%	-18%	-2%	-55%	-15%	24%
Jilin	-39%	-33%	-27%	-62%	-20%	-7%
Liaoning	-27%	-22%	-17%	-54%	-25%	2%
Inner Mongolia	-28%	-28%	-2%	-47%	-20%	6%
Ningxia	-34%	-30%	9%	-60%	-17%	21%
Qinghai	-48%	-49%	-17%	-40%	-16%	4%
Shaanxi	-8%	-19%	5%	-52%	-44%	12%
Shandong	-26%	-22%	-9%	-66%	-30%	6%
Shanghai	-34%	-37%	-10%	-59%	-23%	-9%
Shanxi	-10%	-5%	13%	-60%	-35%	38%
Sichuan	-25%	-30%	-4%	-47%	-20%	2%
Tianjin	-27%	-41%	-1%	-65%	-32%	39%
Xinjiang	-13%	-11%	1%	-49%	-29%	16%
Tibet	-54%	-48%	-11%	-47%	-41%	1%
Yunnan	-19%	-19%	-3%	-43%	-18%	16%
Zhejiang	-37%	-29%	-19%	-61%	-20%	-4%
National	-28%	-27%	-9%	-56%	-27%	11%

Source: Centre for Research on Energy and Clean Air

4. The end of subsidies

The optics around the ‘clean’ coal debate will likely worsen in 2020 as China phases out subsidies for renewables, leading to slower renewable capacity additions.

As discussed in our second theme, the 13th FYP aimed to refocus China’s economic model to rely on innovation while also transitioning to more sustainable energy consumption. Subsidies have helped spur a clean tech industry, thereby supporting innovation, industrial growth and increased consumption of non-fossil fuels. With strong government support, China has now become the world’s leader on clean energy: it is the largest producer of solar panels, wind turbines, batteries and electric vehicles, and was responsible for 32 per cent of renewable investment worldwide in 2018. It is also a global leader in installed capacity of hydropower, solar PV and wind, for all of which, it has exceeded its 2020 targets. Despite these achievements, renewable curtailment levels remain high as the large producing provinces are far from the main consumer hubs and there are still barriers to inter-provincial power trading. There are also restrictions related to land use which add to the cost of renewables, making it harder for them to compete with coal, even when the cost of coal is kept artificially high in some provinces.

The government has been aiming for wind and solar power grid parity by 2020—meaning that electricity created by these sources can be sold to the grid at the same price as coal-fired power—and has also pledged, in the context of the 13th FYP, to allow markets to play a greater role in determining resource allocation. To achieve this, and given declining manufacturing costs, the government is tweaking the subsidy system and has signalled its intention to cut them starting in 2020. Already in 2018, the government started changing track, introducing a quota system that requires grid companies and provincial energy regulators to meet minimum levels of renewable energy utilization. While over time this should support renewables, it has already led to slower capacity additions. At the same time, power price reforms and a new coal tariff mechanism introduced on 1 January 2020, could start to tip the balance against coal and support renewables in power generation, even as the end of subsidies weigh on installed renewable capacity. Overall then, this push and pull of market forces and government support will be a defining characteristic of China’s path to a greener power stack.

A similar story is playing out in New Energy Vehicles (NEV), which have also benefitted from strong policy support and generous subsidies. Thanks to government backing, China is now the world’s largest market for electric vehicles, with 2.3 million battery-electric and plug-in hybrid vehicles on the road in 2018, accounting for 45 per cent of the global stock. Here too, however, Beijing has long signalled its intention to phase out subsidies in 2020, cutting some aid already in mid-2019. This is due to a number of reasons: First, support for the industry has cost central and local governments over 200 billion yuan (over \$30 billion) in subsidies. Second, it has led to manufacturer fraud, including registering vehicles illegally, using smaller batteries in production and falsifying client lists. Third, the government is growing increasingly concerned about the emergence of an increasingly unregulated sector, with excess manufacturing capacity that is not necessarily innovative.

As a result, the central government has gradually been revising its subsidy schemes and moving to performance-based subsidies, rewarding battery makers that achieve certain thresholds in capacity. Beijing also introduced a credit scheme in 2017, whereby domestic carmakers obtain credits and are scored based on the number of electric and hybrid vehicles they sell, taking into account factors such as energy efficiency and driving range. In 2019, their NEV credits were set at 10 per cent, rising to 12 per cent in 2020. In 2019, the government extended the plan, with NEV credits set at 14 per cent in 2021, 16 per cent in 2022 and 18 per cent in 2023.

The subsidy cut in 2019, however, led to a fall in NEV sales, prompting the government to rethink its 2020 support programme. Meanwhile, the policy framework for NEV development, that spanned 2012-2020⁶ is coming to an end. The central government is preparing a new NEV development plan that will

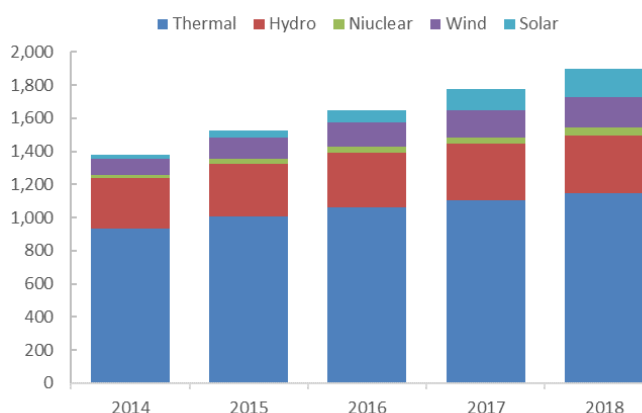
⁶ Development Plan for Energy Conservation and New Energy Vehicle Industries (2012-2020), Stat Council Document 22, 2012, http://www.gov.cn/zwqk/2012-07/09/content_2179032.htm

cover 2021-2035, which, according to a draft released in December 2019⁷, includes vaguer and less ambitious targets than its predecessor. The new plan does not set out specific goals related to market share and technical performance, stipulating only that NEVs should account for one quarter of new car sales by 2025 (up from 8 per cent in June 2019). In the new NEV plan, the government is also looking to encourage capital funds to play a larger role the sector. Finally, the new plan focuses on the charging infrastructure network, looking to encourage real estate developers and charging facility operators to jointly offer public charging services.

More details are likely to emerge over the course of the coming year, with additional support measures introduced by local governments. But in the near-term, a result of these changes, NEV sales growth could slow. Over the next few years, it will be important to watch how these nascent industries fare without subsidies and how policy makers experiment with various support measures to reach their desired outcomes.

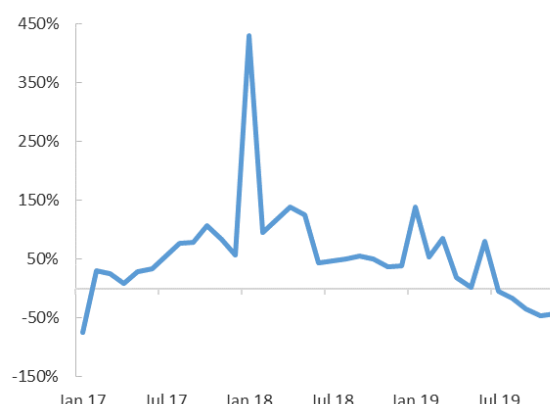
These structural adjustments suggest that the 14th FYP targets could be less ambitious for both renewables and NEVs, and that the government will experiment with different ways to guide the market. A consolidation in a number of these clean tech sectors is likely looming and should not be taken to mean that China is scaling back its domestic or international commitments to the energy transition. The discussions this year and their outcomes in both energy and industrial policies for the 14th FYP will nonetheless be important indicators of China's electrification drive and its ability to decarbonise its power use.

Figure 6: Installed power capacity, GW



Source: China Electricity Council, OIES

Figure 7: NEV sales, y/y change, per cent



Source: CAAM, OIES

⁷ Public consultation on the 'New Energy Vehicle Development Plan (2021-2035)', MIIT, December 2019 <http://www.miit.gov.cn/n1146285/n1146352/n3054355/n3057585/n3057589/c7552776/content.html>

5. State control vs liberalisation

Underlying most of our key themes is a seeming tension between the state's desire to determine outcomes and a drive toward greater use of market mechanisms. The need to reach numeric targets such as GDP growth, NEV sales or a mandated energy mix seem to be fundamentally at odds with a stated desire to create competitive markets which are open to non-state actors, and to let prices determine resource allocation. But in the Chinese political economy, this square can be circled, at least in theory if we assume that the role of markets is only to organize economic activity and improve its efficiency under the state's leadership. In other words, the market is a mechanism for setting prices but not reassigning control of assets. This will remain a tricky balance for China to uphold and for markets to grasp as the government seeks to level the playing field for non-state (domestic and foreign) actors and to reshape its role in the market. More importantly perhaps, loosening control can also lead to unintended consequences, which at times could lead to a recentralisation of control.

There has already been some movement toward a more level playing field over the past few years, most notably in granting private companies access to greater parts of the domestic market. In the oil and gas space, this includes the rise of China's independent refiners and new LNG buyers which now have the ability to import more oil and gas without relying on state-owned traders. The government has also granted private companies greater access to wholesale, retail and storage with less onerous approval processes and it has expedited efforts to increase third-party access to midstream infrastructure (a process that is set to accelerate in the coming years as the new midstream company takes shape). Meanwhile, the government is transferring more decision-making power to state owned companies in determining trade flows, for example. In the first round of oil product export quotas issued in 2020, the government did not set limits for specific products (although it capped overall export volumes) thereby giving refiners greater flexibility in determining their production and sales to both domestic and export markets. This should allow them to better respond to market signals.

The focus in 2020 is likely to remain on supporting the private sector. In late December, in a somewhat vague policy statement, Beijing vowed to 'forge a better environment to support private businesses' and level the playing field. The 28-point plan specifically noted improved access to crude oil and product trading, while also addressing long-standing issues such as market entrance, credit support and law enforcement. This year, the government will likely start fleshing out these priorities with concrete measures and could grant private refiners oil product export quotas.

Indeed, despite a clear acknowledgment from China's leaders that the private sector should play a greater role in the economy, support for the state sector, mainly in credit allocation, has in fact increased considerably under Xi Jinping. And when the government worked to rectify this in 2018, by increasing credit flows to the private sector, it was also asserting more control over it. This has coincided with high numbers of executive level resignations at China's top listed companies. Given that China's state-owned companies are notoriously less productive than private companies, the government will now look to reinvigorate the private economy. Indeed, in 2018, the latter contributed 50 per cent of tax revenue, 60 per cent of gross domestic product, 80 per cent of urban employment and 90 per cent of all new jobs. In addition, as China opens its market increasingly to foreign companies, it will want to give its corporate sector a fighting chance.

Nonetheless, giving private companies greater trading freedom undermines Beijing's desire to limit its import dependency as these new actors turn to the international market to source more crude oil and LNG. The interplay between the need to open the market and the government's desire to mitigate its external vulnerabilities is one example of this tension between state control and market mechanisms.

Easing restriction on foreign firms is another key area for China. Back in March 2019 the government approved a new 'Foreign Investment Law', which came into effect on 1 January 2020 and was received quite positively by many foreign companies in China. Beijing has also rolled out numerous regulations to improve the business environment for both private and foreign firms. These moves may have been accelerated by the US-China trade deal, but they were always in the cards. In oil and gas, already in mid-2018 Beijing removed limits on foreign ownership of gas stations, and in July 2019 it lifted restrictions on foreign investment in its conventional oil and gas upstream as well as in city gas distribution. Finally, in early 2020, it announced its intention to open all oil and gas exploration to private and foreign companies later in the year.

So, while Beijing's efforts to level the playing field have made some progress, two reform commitments seem to be lagging and will become focal points for policy makers in 2020 and in the 14th FYP. The first is state-owned enterprise (SOE) reform. Beijing has been discussing 'mixed-ownership' which involves private ownership of SOEs to increase price consciousness and efficiency. This should allow greater say and corporate oversight from the private sector and provide the impetus to increase SOE competitiveness. The initiative was formally launched in 2013, but it gained (some) momentum in 2018 when the government launched a campaign to introduce mixed ownership and improve corporate governance in more than 400 central and locally owned state-owned enterprises (SOEs) by 2020. As a result, by mid-2019, one-quarter of the designated SOEs had diversified their shareholding structure, one-third had attracted private capital into group companies, and more than half attracted private capital into their subsidiaries. Yet the stakes sold were minimal, keeping the state as controlling shareholder. Moreover, despite efforts to professionalize SOE boards, SOE leaders are still government officials subject to state evaluation; therefore, they prioritize political objectives over commercial ones, especially in the oil and gas sector, where Xi Jinping's corruption crackdown has clipped their wings considerably. Yet the coming years could see SOE reform move forward meaningfully in the energy sector, spurred by the creation of China's midstream company in December 2019 (which strips the SOEs from some of their assets) and an upcoming reshuffle of the heads of China's big energy companies.

Finally, price reform, which has proven extremely challenging, will remain a key theme for China. End-user prices for oil, gas and electricity are all set with government guidance as Beijing aims to support various policy priorities: protecting margins/revenues for its state-owned refiners, utilities and distribution companies; encouraging indigenous resource production while also limiting inflationary pressure for end-users. Levels of control vary by product and part of the supply chain, but the government's hand is present throughout. Given its stated desire to let the market play a 'decisive' role in resource allocation, the government continues to tweak its pricing mechanisms with the aim of gradually rendering itself less visible. Yet even though controlled prices lead to inefficient allocation of resources and lend themselves to smuggling or other distortions created by the monopolistic SOEs, market prices also have unintended consequence. Whether the government can shift its role from price setter to a less interventionist regulator will be another key theme in the coming years. But markets should keep in mind that tweaks to China's pricing mechanisms—given that full liberalisation remains unlikely—can lead to unexpected market distortions. And as China's weight in global markets increases, so do the ripple effects from these policy changes.