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What impact will recent regulatory changes have on China's economy and society?

May 2022

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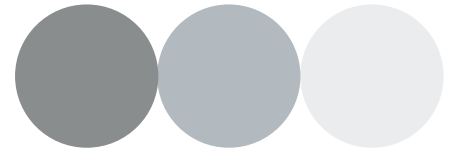


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Key takeaways:

- Rapid changes in Chinese regulations stunned investors in 2021, dividing opinion. Some commentators view the actions as motivated primarily by domestic and global politics – moves to reinforce the primacy of the state and buttress against geopolitical tensions. Others interpret policy actions as justifiable on economic and social grounds – consistent with improving competition and taking bold action to tackle inequality.
- **Judging the optimality and implications of regulatory intervention is ultimately an analytical exercise which must assess whether the outcomes are likely to match the rhetoric.** This is difficult to do in developed markets (DMs), but is even more complex in an emerging market (EM) setting, such as China. Regulations may start further from “best practice”, motivating action. But decisive moves – coinciding with opaque processes, weak legal frameworks and few recourse options – risk offsetting benefits by raising policy uncertainty.
- **This paper considers the motivation and potential impact of the 3 most important regulatory changes in China: property, technology and education.**
- Financial stability (FS) is a long-standing motivation for tackling the high leverage of real estate developers. The process of reducing real estate leverage is not without risks. Indeed, in the extreme it could trigger the FS event it seeks to avoid. **Regulatory action should be successful in reducing the risks from real estate developers leverage, but economic risks from an outsized property sector will not be eliminated.** It is unclear whether the authorities are really willing to substantially reduce reliance on property. Without complementary reforms to aid rebalancing, this could slow whole economy trend growth.
- **Actions against major technology firms reflect a combination of: financial stability, competition concerns and geopolitics.** Overall, these will weigh on dominant firms, but **they are steps in the right direction for improving long-run competition and innovation.**
- Taking the motivations in turn, unfettered innovation in financial technology (fintech) was increasingly looking like regulatory arbitrage, so some regulatory alignment was arguably overdue. Secondly, antitrust actions and steps to open data – making firms standardise information and share it with competitors and the government – should boost competition by tempering the powerful network effects that are a feature of internet platforms; Tencent and Alibaba’s “walled gardens” are no longer as strong, for example. Lastly, moves to restrict the international flow of data will drag on economic efficiency, perhaps unsurprising as they reflect security concerns not market failure.
- **If we look through the prism of “Common Prosperity”, the effective shutdown of the private education sector could be interpreted as an attempt to solve a social failure.** Concern that tutoring firms were adding to pressure on households may have become more acute following the 2020 census which showed fertility rates falling once again. **In contrast to property and technology, there are doubts as to whether impacts match rhetoric.** A shift towards private tutors and home schooling could exacerbate inequality, while there are no fundamental changes to the education system, such as the tough university entrance exams.
- Regardless of whether social priorities move higher up the agenda and spur further regulatory intervention, **the long-run impacts are likely to go beyond the immediate shocks to the property, technology and education sectors. In particular, these actions are a reminder that the opacity of the decision making process in China can result in sudden shifts in the regulatory perimeter.** This could imply higher hurdle rates for firms’ investments and increased market sensitivity to perceptions of the authorities’ aims.

Introduction: shock therapy



Rapid changes in Chinese regulations stunned investors in 2021, wiping \$1tn off the market capitalisation of some of China's most high profile and successful companies (see Chart 1).

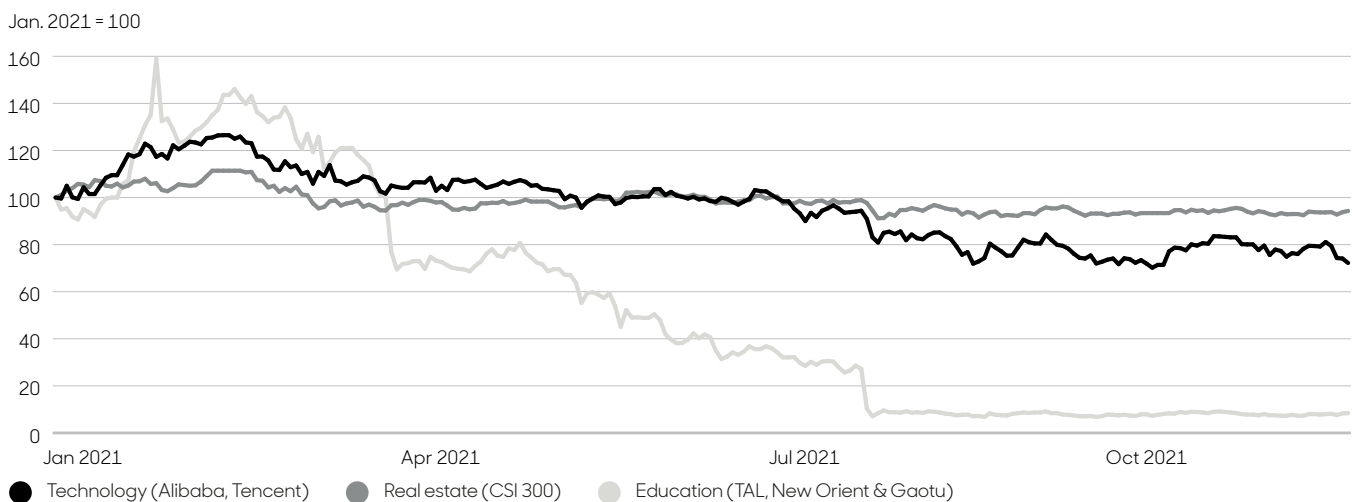
These sudden moves, in conjunction with the increased rhetoric surrounding social equality and "Common Prosperity", has divided opinion. Some analysts and commentators view the recent regulatory changes as primarily motivated by domestic and global politics – moves to reinforce the primacy of the state and buttress against geopolitical tensions. Others interpret policy actions as justifiable on economic and social grounds – consistent with improving competition and taking bold action to deliver high level aims, such as tackling inequality.

Of course, market failures related to the abuse of monopoly power, regulatory arbitrage, or severe social and environmental issues are fair game for regulatory

intervention. Ultimately the potential impact of regulatory change is an analytical exercise that should investigate whether actions are likely to address market failures, and therefore provide a guide on how close changes in reality are likely to be to high level official aims and rhetoric.

This note aims to take an impartial analytical approach, considering the three most high profile and economically significant changes, specifically the regulatory actions impacting: real estate, technology and education. Before getting into the detail of the changes affecting these sectors, we first recap the principles of regulation and consider them in an emerging market context.

Chart 1: Equity valuations have fallen notably for sectors hit by changing regulations



Source: Bloomberg, abrdn, November 2021.

Addressing market failure: the costs and benefits of regulation



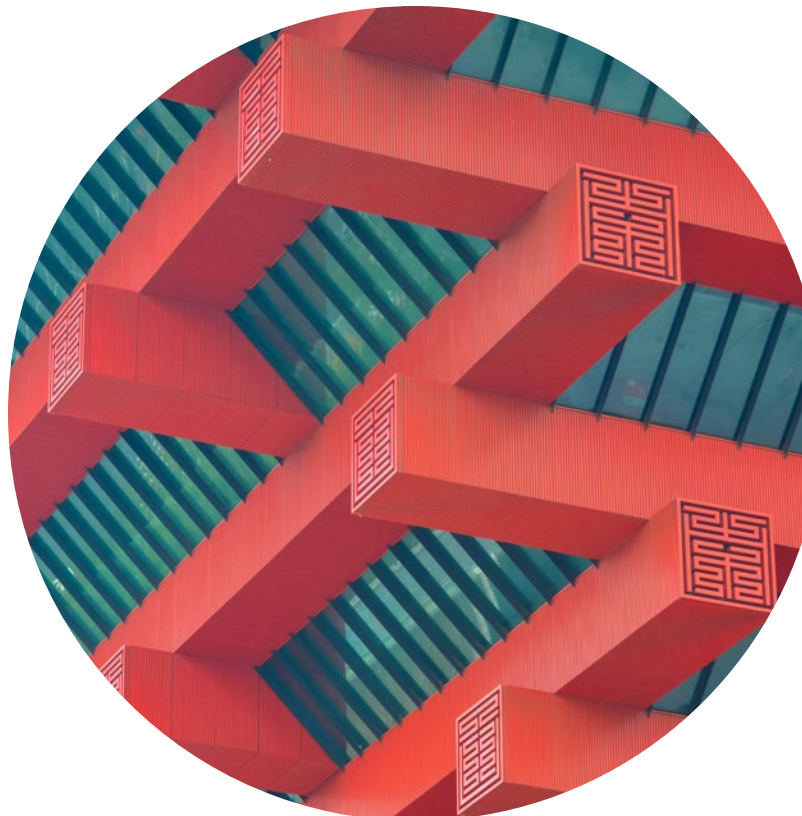
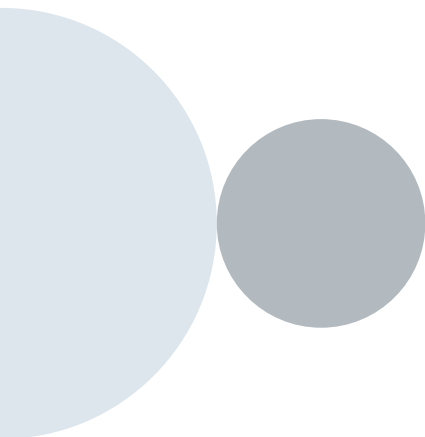
Regulatory regimes must consider how they will shape (and also adapt to) social, economic and technological changes. Put simply, regulatory intervention is an ongoing cost-benefit exercise:

Benefits of intervention are strongest when they can cleanly address market failures related to the abuse of monopoly power, regulatory arbitrage, or severe social and environmental negative externalities, such as pollution.

At the time of intervention regulations may weaken the profits of dominant incumbent firms (who are likely to be large listed firms, owned by a plethora of investors), but levelling the playing field can improve profitability for a larger number of (unlisted) SMEs and help drive innovation. The negative impact is therefore highly visible in the stock market, while the long-term gains via boosting allocative efficiency – and potentially reducing risks of economic crises that could necessitate the absorption of losses on to the public balance sheet – are not as immediate.

Costs can come from improper implementation and unintended consequences. Even if regulations are implemented with good intentions, some benefits may be offset if they weaken incentives for innovation, or generate regulatory evasion/arbitrage, for example.

In practice, it is difficult to assess the aggregate compliance costs vs. the perceived benefits, with forward looking judgements an essential part of the assessment. On top of this, regulatory regimes must constantly adapt to changing markets, making optimisation a continuous task. Further, regulations do not operate in isolation – impacts therefore also need to be considered in the context of the overarching regulatory regime and potential cross-industry effects.



A stitch in time? Regulations in an emerging market context

Judging the optimality and implications of regulatory interventions is difficult in developed markets (DMs), but may be even more complex in an emerging market (EM) setting, such as China. There are both advantages and disadvantages in moving quickly.

First, regulations may start further from 'best practice' in EMs compared to DMs, potentially making required shifts larger if regulations have not kept pace with economic growth and structural change.

Starting further from best practice (especially in a rapidly growing economy) may therefore change the cost-benefit calculation: a faster but more heavy-handed change, could potentially be more effective than a slower process which derives regulations that are closer to a theoretical optimum. A slow and steady approach

may allow distortions to persist for longer, potentially strengthening vested interests' opposition to reform, for example by letting 'too big to fail' firms embed politically and economically.

Acting quickly may have some benefits, but it may also come with some costs and risks.

A lack of due process and public consultation could raise markets', firms' and households' policy uncertainty. This could raise: market risk premia, hurdle rates for firms' investment and households' precautionary saving balances, respectively. Such policy uncertainty may be compounded if investors, firms and households already have concerns about property rights, particularly if regulations are not operating in a solid legal framework, with few recourse opportunities.

Assessing China's latest regulatory changes

The overall policy shift in China is one of evolution, rather than revolution, while China is clearly not alone in grappling with Big Tech as noted in our **earlier paper**. But the regulatory perimeter has shifted more aggressively and unexpectedly in 2021, a clear move towards acting quickly.

In the case of education, for example, the process appears to have been highly centralised – even by Chinese standards – with little interaction between industry and the authorities. Experimentation within special economic zones, that has in the past helped to improve regulations before being rolled out nationally, was not considered.

It remains to be seen whether these decisive moves were motivated by one-off factors or whether this marks a change in standard operating procedures going forward.

Overall, the complexity of regulatory changes in an EM context strengthens the need to assess changes on a case-by-case basis, while also considering how policy fits with the overarching regulatory regime, and the broader motivations and aims of the government.

We next consider the 3 most important recent changes in China: property, technology and education.

"A lack of due process and public consultation could raise markets', firms' and households' policy uncertainty."



1. Property: macroprudential regulations to reduce leverage in a key sector

Evergrande's financial woes have put the whole Chinese real estate sector in the spot light. But the high reliance on real estate as an engine of growth and as source of financial vulnerability has been known for a long-time.

The interplay between real estate as a major driver of growth and employment, the reliance of local governments on land sales and the links between the financial system between both developers and local governments may have created pillars of vulnerability that if toppled could introduce a feedback loop, amplifying a downturn.

International organisations, such as the IMF have been publicly warning about leverage in the real estate since at least 2016, and are likely to have been privately voicing concerns ahead of this. The risk of "grey rhinos" entered the authorities' lexicon a couple of years ago – a highly visible problem that could do much damage should it get up to speed. And President Xi's emphasis that "housing is for living, not speculating" is not new, but it has been used increasingly frequently alongside the rise of "Common Prosperity".

In that sense, while the timing of actions and their magnitude was a surprise, the motivations for acting to tackle problems in real estate are long-standing.

In August 2020 the "3 red lines" for developers were introduced, comprising: a liability to asset (excluding advance receipts) ratio of less than 70%; a net gearing ratio of less than 100%; and a cash to short-term debt ratio of at least one. And at the end of 2020 the PBOC announced that caps would be put in place on banks' outstanding property and mortgage loans.

These steps are clear macroprudential regulations that are warranted for financial stability. Real estate firms' leverage may make business sense in isolation, but it does not take account of the potential large cost to the rest of the economy should the property market crash.

There are clearly risks of implementing measures to reduce leverage, and in the extreme they could crystallise the risks the authorities are seeking to avoid. Indeed, Evergrande's demise – and some of the recent softness in

the housing market – is the direct result of the authorities' introduction of these macroprudential measures to rein in real estate risks and, at the time of writing, market pricing of risk remains very elevated for the sector as a whole.

Of course, even if a crisis is avoided – as we expect – and long-run risks surrounding real estate developers' leverage is reduced, the impact on trend growth of tempering the reliance on real estate could be substantial. Real estate is simply so large (see Table 1) that it may be difficult to reduce reliance on this engine of growth without pulling down overall GDP growth. Moreover, the current policy mix does little to support other sectors; forceful steps to rebalance the economy away from investment and towards consumption remain illusive, for example. Without complementary reforms, the distribution of potential growth may have a reduced downside tail, as regulations reduce the risk of a crisis, but it could also imply a somewhat lower central distribution for GDP growth.

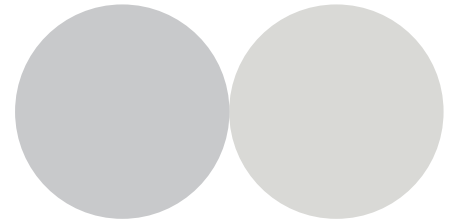
Table 1: Real estate is a large share of China's broader economy.

Proportion of GDP	
Investment in construction	22%
Investment in equipment	1%
Real estate value added	7%
Total ¹	29%

¹ Note: This table reports the estimated impact of real estate related activities on China's economy based on cross-industry linkages in the input-output matrix. Accounting for imports reduces total contribution by 4 percentage points. Figures taken from Rogoff & Yang (2020), NBER working paper 27697.

Overall, tackling real estate risks is likely to be a long process and one cannot rule out further actions once firms and banks become compliant with the 'red lines'. But they are at least an example of regulations being enacted to address a clear market failure.

2. Technology: the intersection between competition, the balance of power and geopolitics



Large technology firms were a key component keeping China – and most countries around the world – running through the Covid-19 shock, an unthinkable proposition if reliant on technology from only 10 years ago.

The acceleration of digitalisation brought about by the Covid-19 shock boosted stock prices, and showed how internet firms had become integral to both the economy and society. The government also found it needed these firms' systems to track & trace as part of its 'zero-covid' strategy. Their economic and political power had clearly risen.

Chinese authorities were already re-considering how much latitude technology firms had, and this likely gave more urgency to their actions.

Financial technology (fintech) regulation was deliberately light touch in the early days. The PBOC and State Council saw advantages in helping to increase financial inclusion – extending access to the financial system, broadening product choice and helping credit assessment in a rapidly changing economy – and as a means of encouraging existing financial firms to innovate and reducing capital misallocation risks. But unfettered fintech innovation was beginning to look like regulatory arbitrage, and sat uneasily with the ongoing de-risking campaign which began in 2017 with the crackdown on 'shadow' banking.

As we outlined in paper 2, it is not just China grappling with Big Tech. More and more countries are finding that powerful network effects can lead to a 'winner takes most' landscape dominated by a few large firms. Internet platforms often embody both significant network externalities and economies of scale, producing a 'natural' tendency for concentrated industries, especially when accumulation of customer data confers business advantages. This can lead to strong growth initially as these networks develop and new services are offered, but in the long-run they risk stifling competition, innovation and therefore productivity.

At the same time, the deteriorating US-China relationship has added a national security dimension to the authorities' motivations.

Putting it all together, this largely explains why regulations have focused on: i) regulatory alignment, ii) antitrust enforcement, and iii) data security. It is worth considering the associated actions in turn.

1. Innovation vs regulatory arbitrage

The suspension of the ANT Financial IPO in November 2020 marked the start of the technology shake up and was a clear sign that the light touch approach to fintech was conclusively over.

ANT's online financial lending business used proprietary data to assess credit risks and would then refer these borrowers to banks for a fee. It is perhaps of little surprise, following on from the US sub-prime debacle, that this form of originate & distribute lending practice would eventually face regulatory ire.

Some speculated that ANT's owner Jack Ma had aggravated political leaders and that these actions largely reflected the authorities reasserting their power. And while one cannot fully discount political motivations, the CBIRC noted that problems of regulatory arbitrage were not confined to ANT and in April the State Administration of Market Regulation (SAMR) summoned more than 30 internet firms, admonishing them for some of their business practices. The PBOC and CBIRC have also issued new rules to widen the regulatory perimeter to raise capital requirements, expand compliance and data security across a range of fintech services. Indeed, financial holding companies are now mandatory for any firm with more than one financial services arm.²

Similar to the steps taken in real estate, actions taken against fintech are largely justifiable on macroprudential grounds and should be net positive for the long-run, even if they induce dislocations as firms transition to a new business landscape.

Interestingly though, some of the regulatory moves go beyond equalising capital requirements and ending differential regulations across entities (i.e. banks vs fintech). The data asymmetry created by technology firms' databases have also been targeted. Alipay's proprietary data may be used to form a new state-linked credit rating firm, for example. This could be consistent with a revolution – not an evolution – in how regulators are thinking about the building blocks of competition.

² Financial holding companies are subject to capital and leverage requirements similar to those for banks.

2. Levelling the playing field: competition or power?

Market dominance is the typical concern for regulation of technology firms. Anti-competitive practices such as preferential treatment, bundling, cross-subsidisation and discrimination are typically front of mind for regulators.

These issues are certainly not uniquely Chinese, with competition authorities around the world seemingly struggling to apply conventional regulatory frameworks to Big Tech. Antitrust has traditionally focused on uncompetitive price setting and has required regulators to define the impacted markets, but the rise of zero-cost products and the downward pressure that internet platforms have put on goods prices, means that pricing alone is often now an insufficient criteria.

A broadening of consumer welfare considerations beyond pricing – and including personal data protection – are seemingly shifting regulators increasingly towards ex ante assessments i.e. how competition might be affected, rather than waiting for clear evidence of anticompetitive practices. In that sense, while China's steps are more aggressive they are not necessarily at odds with embryonic global trends.

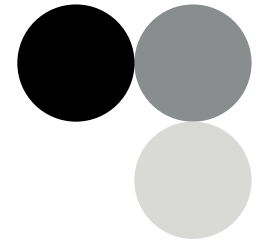
Indeed, a recent IMF Staff Paper notes that the rise of market power since the 1980s justifies competition authorities responding faster, including the use of interim judgements that could be imposed before final decisions are made. De la Mano and Padilla (2018) also conclude that slow actions may leave in place anti-competitive practices for too long to reverse adverse effects on competitors. In this spirit, the EU's competition chief Margrethe Vestager was reported in December 2021 as saying "it is best to get 80 per cent now than 100 per cent never".

"The Trump administration was adamant that installing Huawei's 5G hardware would create a national security vulnerability, both in the US and amongst its allies."

Antitrust actions in China have cleared stepped up. The business practice of "choose one of two" has come under particular scrutiny, with the SAMR dishing out record fines to Alibaba and Meituan, worth between 3-4% of their annual revenues. Ending exclusivity of contracts with brands and distributors should bring greater competition as will the weakening of Tencent and Alibaba's "walled gardens" – their apps must now allow some interoperability between their platforms. Overall, these moves should boost competition by somewhat weakening network effects, thereby helping to underpin innovation and long-run growth. Of course, it remains to be seen whether network effects will be fundamentally changed by these regulations, but – at a minimum – they are steps in the right direction.

That said, a shift to ex ante assessments and enforcement may create more uncertainty, potentially reducing some of the benefits. As noted earlier, regulatory interventions in an emerging market context may carry a less favourable cost-benefit trade-off if legal frameworks are weak and offer few recourse opportunities. Moreover, when competition authorities operate transparently it is easier to assess the evidence base for regulatory actions and evaluate whether their impacts are likely to match the rhetoric – ex ante assessments are tough even in open systems.





3. Data, the new economy and national security

The importance of data in the new economy has motivated some of the actions within technology, but they also overlap with geopolitical tensions and, relatedly, national security (Figure 1).

US concerns about Chinese technology span both hardware and software. The Trump administration was adamant that installing Huawei's 5G hardware would create a national security vulnerability, both in the US and amongst its allies. While both the US and China fret about data access: Chinese firms have been under pressure to de-list from US stock exchanges following US requirements to improve accounting transparency. Moreover, the actions taken against Didi Chuxing following its New York IPO explicitly cited concerns that its data could be accessed by foreign governments.

A new legal framework has since been rushed through, motivated by both national security and competition. The latest laws comprise two main parts:

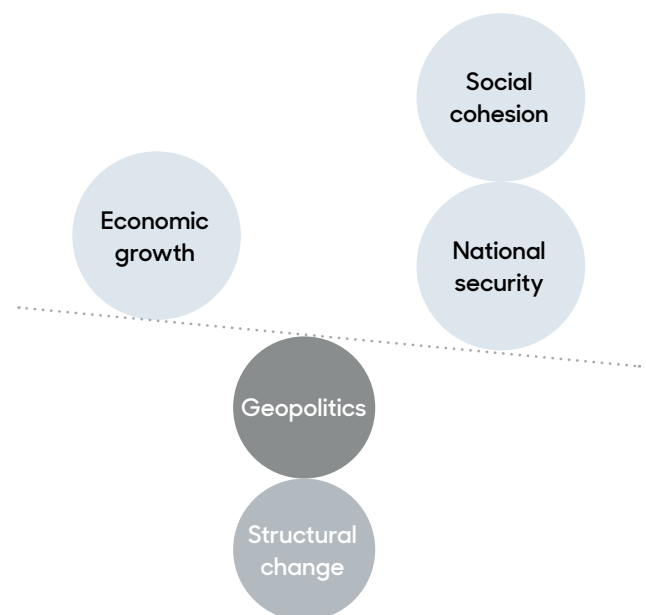
- 1 Data Security Law (DSL) governs how data is stored and transferred and in this regard has similarities to the EU's GDPR, but it also introduces security-related classifications of "important data" and "national core data" which include tough conditions on the ability of firms to transfer data abroad. Firms deemed to be Critical Information Infrastructure Operators (CIIOs)³ are required to store data within China and must undergo a security assessment by the Cyberspace Administration of China (CAC) for data transfers out of China.
- 2 Personal Information Protection Law (PIPL) which requires consent for users' data to be shared and aims to improve the portability of data, potentially lessening network effects.

The latest legislation – particularly the DSL – is still being rounded out, but it reinforces the trend of opening data,

making large firms standardise it and share it with competitors and the government. In theory, this could help to underpin competition: if data is increasingly an input for production, a more open approach could lead to efficiency gains, although quite how this interacts with firms' incentives to collect and manage data is an open question. Nor is it clear how an open data approach interacts with China's political system.

Moves to restrict the international flow of data are most likely a drag on economic efficiency. China may be a large and growing market, but the 'great firewall' potentially limits the ability of Chinese firms to scale up internationally as the economy becomes increasingly digital. After all, firm software is infinitely scalable, but that is no use if the global digital ecosystem fragments.

Figure 1 – Regulations have become a difficult balancing act



Source: abrdn, November 2021.

³ CIIOs appear to primarily refer to firms in: communications, information technology, finance, transportation, and energy sectors.

3. Education: less is more?

While there had been murmurs of discontent from the authorities about the private education sector⁴, the effective shutdown of a RMB 450 bn (\$70bn) industry was much more than anyone expected. New academic tutoring firms will no longer be approved, while existing companies are forced to convert into non-profit entities. Tutoring firms cannot raise funds from the stock market, or accept any foreign investment. Major listed companies, such as New Oriental Education, TAL Education and Gaotu TechEdu, are expected to need root & branch surgery, and only have a slim chance of remaining listed.

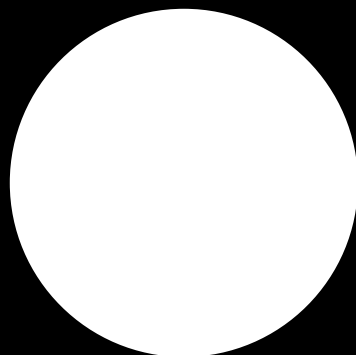
Unlike the motivations for regulatory change in property and technology, it is harder to appeal quite so directly to a market failure. The provision of educational services clearly filled a demand, and there is little to say that the sector was uncompetitive or was a source of financial stability risks.

That said, when viewed through the prism of "Common Prosperity", these steps could be seen as an attempt to resolve a social failure. A heavy-handed approach could be needed to break a socially sub-optimal equilibrium, as households have found themselves in the educational equivalence of a 'prisoner's dilemma': knowledge that other parents are motivated to pay for tutoring to give their children an edge, leads everyone to demand it. This could be inefficient if exams operate primarily as a screening tool to allocate university places to the brightest students – in this interpretation, everyone gains by not sending their kids to after school classes.

The key question is therefore whether the reforms solve a coordination failure while maintaining or improving the equality of educational opportunities.

There are reasons to doubt whether these actions can introduce a stable equilibrium. For those who can afford it, private tutoring – which reportedly costs around 10 times as much – could take the place of provision by firms, exacerbating inequality of opportunity. The competitive pressures to excel at academia risks putting more of the burden on parents, a potentially less efficient source of teaching (and one that could perpetuate inequality of educational opportunity across generations). These steps may be more durable if coinciding with more fundamental change to the educational system, but there are no signs yet of changes to the tough gaokao university entrance exams, for example.

International examples are not encouraging either: Korea's attempts to ban tutoring in 1980 was also billed as an attempt to ease pressures on students in its similarly competitive educational environment; however, 'underground' tutoring eventually led the government to roll back its restrictions.



⁴ The Ministry of Education criticized the flood of money into the sector for leading to aggressive expansion and massive advertising campaigns that increased the social pressure to use tutoring services. In March 2021, President Xi publicly criticized the 'mess' in the sector, calling it 'a chronic disease that is very difficult to cure.'

Does 'Common Prosperity' imply a more interventionist, less market friendly backdrop?

The sudden education intervention - and also the unexpected crack down on online gaming (a "spiritual opium"⁵) - raises questions about the authorities' willingness to intervene in other industries for social purposes.

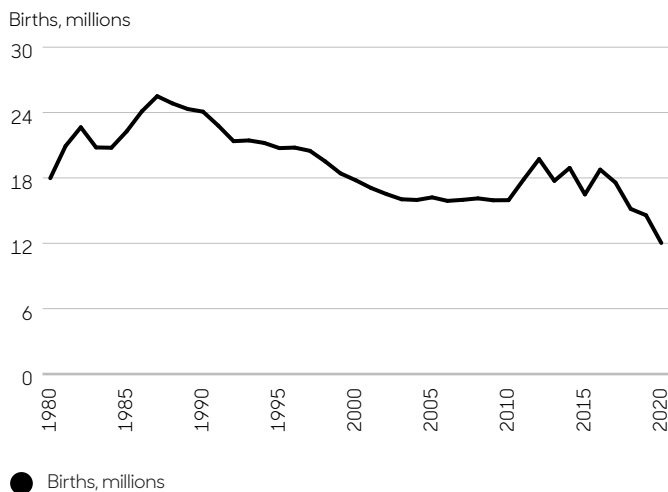
It is difficult to draw a firm conclusion, and as we noted in the first paper in this series "Common Prosperity" is more of an evolution, rather than a revolution in policy making, but it could imply that socially motivated interventions become more common.

Chinese Communist Party (CCP) concern about the pressures which households face from the likes of high housing costs, long work hours and juggling childcare intersect with growing CCP disquiet about declining fertility rates⁶ and the rapid aging of the population.

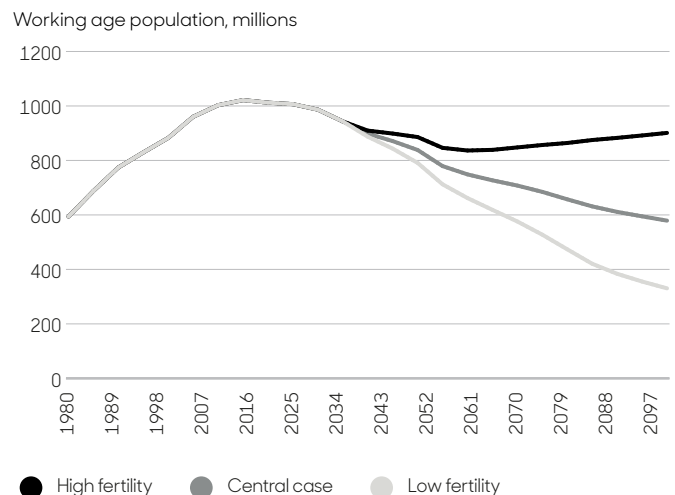
The implications of lower fertility for China's overall population, the size of its economy and the challenges this would add to policy making are stark (see Chart 2).

As we discuss in the next paper in this series, some sectors, such as healthcare and media are potentially at greater risk from future interventions. China's stage of development and aging population imply a rapid rise in healthcare expenditure hence, there is risk that rising profits in the healthcare sector create tensions with the government's social and political priorities. The media's role in disseminating information and shaping public opinion, leaves it vulnerable to shifting political sands.

Chart 2: China's population could be markedly lower should it find itself in a 'low fertility' scenario



Source: Haver, NBS, UN, abrdn. November 2021.

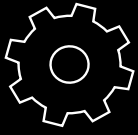


Source: Haver, NBS, UN, abrdn. November 2021.

⁵ The editorial, first published in the Economic Information Daily newspaper, called online video games "spiritual opium," and questioned the value of an industry that generated RMB 279bn in sales at the cost of "ruining a generation." The editorial was removed, then reposted with softer language and the opium reference deleted.

⁶ China's births fell notably in 2020, likely due to the Covid-crisis; however, births also fell in the previous 3 years. The fertility rate fell to just 1.3 children per woman in 2020, on par with ageing societies like Japan.

Conclusion



Regardless of whether social priorities move higher up the agenda due to “Common Prosperity” and spur further regulatory intervention, the long-run impacts are likely to go beyond the shocks to the property, technology and education sectors.

These actions are a reminder that the opacity of the decision making process in China and unique motivations – shaped by both domestic and global considerations – can result in sudden shifts in the regulatory perimeter.

If a belief that policy uncertainty will remain elevated embeds it could raise market risk premia and firms’ hurdle

rates for investment. Moreover, a move towards acting quickly and ex ante regulatory actions – even if motivated by closing the gap to best practice, or dealing with Big Tech – could turn into a Rorschach test: the balance of opinions as to the authorities aims and outcomes may be more volatile when institutional processes are opaque.

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