

TOP of MIND

IS CHINA INVESTABLE?



As the Chinese government continues to carry out unprecedented regulatory tightening, what the new regulatory environment means for China’s growth, investment outlook and beyond is Top of Mind. We get perspectives from Primavera Capital’s Fred Hu, Oxford University’s George Magnus, Tsinghua University’s David Li and CSIS’s Jude Blanchette, and our own economists and strategists. Hu, Li and our analysts view these shifts as largely consistent with the goal of achieving sustainable and socially responsible growth, suggesting limited damage to China’s longer-term growth and investment prospects, despite the likelihood of continued market volatility and a growth drag over the shorter term. But Magnus and Blanchette

see strong political motivations at work, especially in the run-up to next year’s important 20th Party Congress, and are more concerned about the longer-term growth and investing implications. That said, we find little evidence of spillover effects beyond China from these shifts so far, with EM assets remaining resilient, and expect this to largely continue.



Without any doubt, China still offers tremendous opportunities for global investors.

- Fred Hu

[Chinese markets] are much riskier than what we thought six months ago. So caution should be the key watch word, and investors should fully understand what they are buying, and that prices are discounted to reflect this risk.

- George Magnus

The party is not looking to move away from markets wholesale; it wants and needs markets. Xi Jinping is instead trying to ensure that markets are leveraged to drive the strategic outcomes that serve the Communist Party and China’s national goals.

- Jude Blanchette



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Investors should consider this report as only a single factor in making their investment decision. For Reg AC certification and other important disclosures, see the Disclosure Appendix, or go to www.gs.com/research/hedge.html.

Macro news and views

We provide a brief snapshot on the most important economies for the global markets

US

Latest GS proprietary datapoints/major changes in views

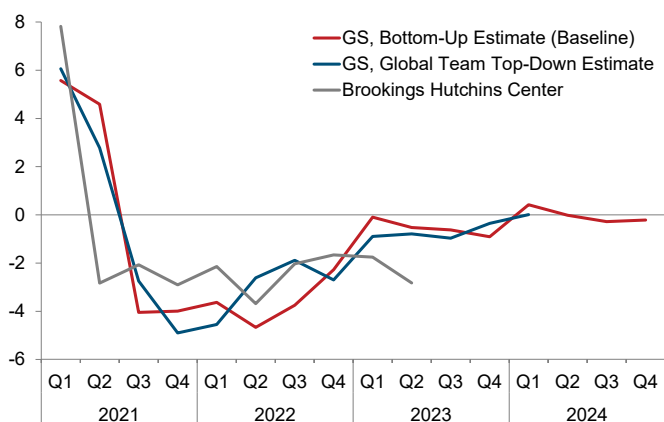
- We lowered our 3Q21 growth forecast to reflect the continued drag from the Delta variant on consumer spending and production and our 4Q21 growth forecast based on our expectations of a fading fiscal impulse and a significantly slower recovery in services.
- We pulled forward our expectations for the announcement of Fed tapering to Nov following release of July FOMC minutes.
- We now expect core PCE inflation to end the year at 3.8%.
- We now expect a year-end unemployment rate of 4.2%.

Datapoints/trends we're focused on

- Fiscal policy; we expect \$2.5tn in spending/\$1.5tn in tax hikes.

A sharply fading fiscal impulse

Effect of fiscal policy on real GDP growth, % change, annual rate



Source: Brookings Institution, Goldman Sachs GIR.

Europe

Latest GS proprietary datapoints/major changes in views

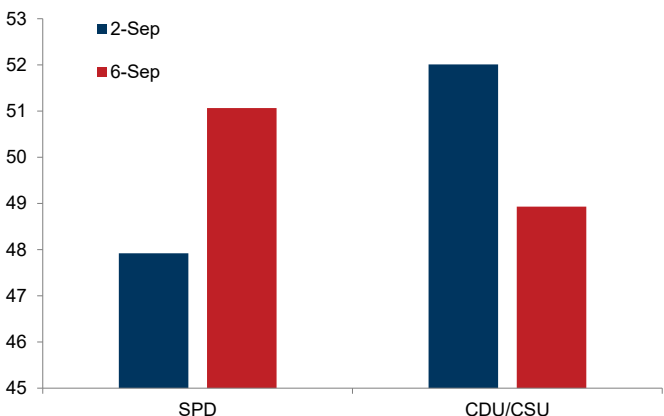
- We significantly lowered our 3Q21 UK GDP forecast to 1.4% (non ann.) following softer-than-expected July growth data.

Datapoints/trends we're focused on

- Euro area growth, which has likely peaked but should moderate only gradually from here and remain firm in 2H21.
- EA core inflation; we expect it to slow sharply in early 2022.
- German elections; we see a >50% prob of an SPD-led govt, which would imply meaningful fiscal easing in coming years.
- ECB QE; we expect the PEPP purchase pace to fall to EUR 70bn/month in 4Q21 and even further in 1H22.

Better than even chances of an SPD-led government

Simulated probability of majority by political leadership



Source: Goldman Sachs GIR.

Japan

Latest GS proprietary datapoints/major changes in views

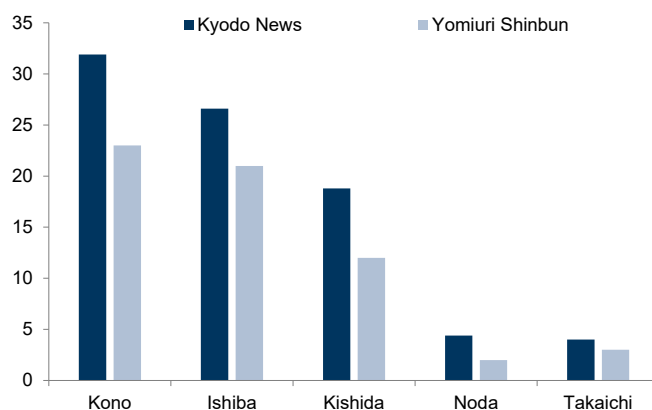
- We lowered our 3Q21 growth forecast to 1% to reflect the latest economic data, mobility trends and the impact of the repeatedly extended state of emergency.

Datapoints/trends we're focused on

- Political outlook; polls indicate a change in ruling party is unlikely, and we think the withdrawal of PM Suga from the upcoming LDP presidential race could result in the LDP gaining more seats in the Lower House election.
- Virus spread; new cases are up sharply compared with the first four waves, but the mortality rate has significantly declined as vaccinations have picked up.

Taro Kono currently leading in the polls

Polls conducted on Sept 4-5th, after PM Suga's announcement



Source: Kyodo News, Yomiuri Shinbun, Goldman Sachs GIR.

Emerging Markets (EM)

Latest GS proprietary datapoints/major changes in views

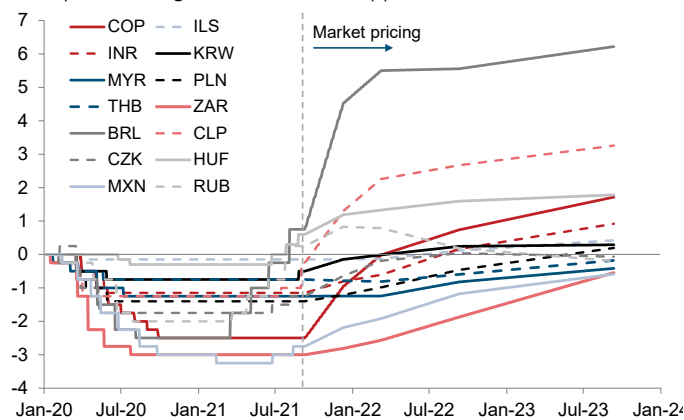
- We lowered our 2021 China growth forecast to 8.2% and growth forecasts across the wider Asia-Pacific region on the back of renewed restrictions to contain Delta virus spread.

Datapoints/trends we're focused on

- Regulatory tightening in China; monetary and fiscal policy will need to ease to counterbalance a regulatory drag on growth.
- Inflationary pressures, which are starting to peak across EM.
- EM monetary tightening cycle, which is likely to broaden but somewhat slow as inflationary pressures peak.

A broader but slower EM hiking cycle ahead

Policy rate change since end-2019, pp



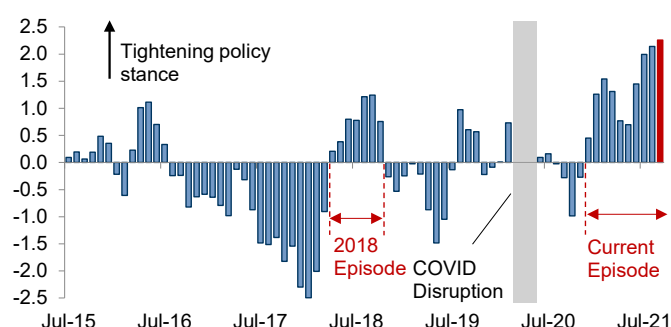
Source: Bloomberg, Haver Analytics, Goldman Sachs GIR.

Is China investable?

In recent months, the Chinese government has embarked upon a regulatory tightening cycle unprecedented in terms of its duration, intensity, and scope. Regulations targeting specific sectors, including internet platforms, education and property markets, have wiped out more than \$1tn of market cap from Chinese equities since their recent peak in mid-February. At the same time, President Xi Jinping has announced a new "common prosperity" agenda to promote more sustainable and equitable growth. As investors and observers try to wrap their heads around these regulatory and policy shifts, what they—and potential future actions—mean for the Chinese economy, its markets and beyond is Top of Mind.

An unprecedented regulatory tightening cycle

POE (privately owned enterprise) regulation proxy, z-score



Note: POE regulation proxy reflects the text-mining results of news among POE-heavy sectors. Data points during Mar-Jun 2020 have been removed due to COVID disruptions.

Source: Factiva, MSCI, FactSet, Goldman Sachs GIR (Asia Strategy team).

To start answering these questions, we first turn to a number of China watchers, including GS's Chief China Economist Hui Shan, Primavera Capital's Fred Hu, Oxford University's George Magnus, Tsinghua University's David Li and CSIS's Jude Blanchette, to better understand the government's motivations, the forward-looking regulatory outlook and whether these developments mark a meaningful shift in the relationship between the government and the private sector/markets in China.

Shan, Hu and Li generally don't view these shifts as an attack on the private sector. Rather, Shan and Li argue that the government is targeting certain behaviors and industry practices that work against its goal of achieving sustainable and socially responsible growth by taking actions to safeguard consumer data and national security, protect gig economy workers and level the playing field for lower-income households. According to Li, that suggests that sectors that touch on social areas, media and culture could become regulatory targets in the future, while most others will likely remain unscathed. And Hu sees the motivations behind the recent tech regulations as strikingly similar to concerns in other countries over possible abuses of market power, data security and consumer privacy in the digital era.

But Magnus and Blanchette argue that these regulatory actions are mostly motivated by the government's desire for power and control, and represent an extension of a pattern of the Chinese state reasserting its dominance over the private sector in recent years. And they also see strong political motivations behind these shifts in the run-up to the 20th National Party Congress of the Chinese Communist Party (CCP) in the fall of 2022, where President Xi is widely expected to break with decades of tradition and stay in power for a third term. Indeed, Magnus suspects that this is just the beginning of a broad campaign to further bring the private sector to heel and implement the

"common prosperity" agenda, suggesting that sectors like real estate, social care and healthcare could soon be targeted. That said, Blanchette notes that the government needs markets, and so isn't looking to move away from them entirely, but rather aims to ensure that they serve the CCP and China's national goals.

Given their differing POVs, it's no surprise that our contributors also disagree on the potential economic impacts of these shifts. While Shan and Li both believe that the abrupt and heavy-handed implementation of the new rules will likely be a drag on growth in the short term, they are still relatively positive about China's longer-term outlook, as they and Hu don't believe new regulations will hinder innovation. In particular, Li points to China's sizable domestic market, plentiful capital and large and talented engineering workforce as reasons to remain optimistic about the continued prospects for innovation and growth. But Magnus is more concerned, arguing that the net result of government intervention into business operations will be to add to the structural economic headwinds China already faces, and complicate the path towards improving productivity.

But the key question amid all of these shifts is: "Is China investable?" Magnus and Blanchette believe that investors looking at China today should tread cautiously. But GS Asia Pacific Strategists Tim Moe and Kinger Lau argue the answer is still broadly "yes", because regulations aren't likely to structurally impair companies' earnings. That said, until policy communications improve and/or companies adapt, they prefer exposure to mainland-listed China A shares, which are more insulated from further regulatory tightening risk and more favorably exposed to potential macro policy easing ahead. And in terms of sectors, they favor those aligned with China's national development objectives, including foundational/"hard" technology, green/renewable energy and "New Infrastructure".

And with tech in particular in the crosshairs, we dive deeper into what these regulatory shifts mean for tech investing. Hu contends that while the "hard tech" space (e.g. semiconductors, robotics, etc.) is a safe haven given it has been spared from recent regulation, it would be a mistake for investors to ignore China consumer tech. He advises investors to look for companies with strong technologies, solid business models and leaderships that promote a "governance and compliance culture". And Piyush Mubayi, GS Lead Analyst for China Internet, believes that the shifts will ultimately create an environment more favorable to the internet sector's sustainable growth and global competitiveness.

As for other Chinese assets, Kenneth Ho expects limited spillovers into China corporate credit beyond the hard-hit property sector. Maggie Wei sees the RMB rangebound in the short-term but stronger in the medium- to long-term as investors' allocations to Chinese assets rise. And Kamakshya Trivedi and Danny Suwanapruti believe recent events have reaffirmed the diversification benefits of Chinese Government Bonds (CGBs) in global portfolios. Lastly, EM strategist Caesar Maasry assesses spillover risks to EM assets ex-China, noting their exceptional resilience to the China rout so far, which we expect to continue.

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Interview with Fred Hu

Fred Hu is Founder, Chairman and CEO of Primavera Capital Group, a China-based investment firm focused on innovative industries. Previously, he was Partner and Chairman of Greater China at Goldman Sachs. Below, he argues that despite China's recent regulatory tightening, the country still offers tremendous opportunities for global investors.

The views stated herein are those of the interviewee and do not necessarily reflect those of Goldman Sachs.



Allison Nathan: As a long-term investor in China, how do you interpret the recent regulatory shifts, and what do you think the government is trying to achieve?

Fred Hu: The motivations behind China's recent efforts to regulate the tech sector are understandable and shouldn't come as a surprise to the market. China's tech sector is one of the world's largest and most successful, and is comparable to that of the US in terms of its size, scale and reach, especially in the consumer internet space. Unquestionably, the stunning growth of the tech sector has had a tremendous impact on the Chinese economy, society and the daily lives of ordinary citizens. That impact has mostly been positive, bolstering business efficiency, productivity, and offering consumers connectivity, convenience, choice, value and unprecedented access to information, products and services.

But the ubiquity of tech has also led to growing concerns over possible abuses of market power, data security and consumer privacy in China, as is the case elsewhere. The EU has been the most proactive in scrutinizing tech companies and taking action against market power and privacy violations. By contrast, China, much like the US, has historically been relatively hands off when it comes to the tech sector. So Chinese policymakers are trying to catch up in addressing these concerns by imposing sweeping regulations, and it's worth noting that the Biden administration is also stepping up in this area. All told, viewed through a global lens, China's regulatory intentions and goals are strikingly similar to those of other countries. The one glaring difference is that China has taken a far stronger, and, arguably, more heavy-handed approach to regulation and enforcement, which has clearly had a devastating impact on investor sentiment and markets in the short term.

Allison Nathan: Why has the government taken such an abrupt and heavy-handed approach to implementation?

Fred Hu: It mostly has to do with China's unique system of governance and the distinct relationship between state regulatory authorities and the private sector/markets. China has come a long way in establishing a market economy, but it has a history of more proactive government interventions in the economy than the US. While government intervention in China is often motivated by public interest or the legitimate goals of the state, policymakers are still learning how to delineate the boundary between the state and the private sector and to communicate their intentions and goals more clearly and consistently without spooking markets. So the perceived heavy-handedness is due both to tradition and the fact that China is still trying to figure out how to properly regulate an increasingly large, complex, dynamic and innovative economy. That's still a work in progress.

Allison Nathan: Do you think the latest crackdown is an extension of China's state capitalist model, or are we seeing a shift toward an even larger role for the state?

Fred Hu: The government has always prized social stability, order, and harmony, which it sees as the bedrock of China's continued progress. Some Chinese leaders might say that without social stability, all bets are off. So the government won't allow any kind of disruption, including those caused by tech innovation, to jeopardize the overarching goal of maintaining social stability and order. But even with this mindset, the Chinese government has also been largely pragmatic over the last four decades in giving the private sector some degree of freedom to innovate and grow. So it will continue to be a balancing act, like in any modern market economy.

Allison Nathan: With the government regulating consumer tech more heavily while simultaneously promoting investment in hard technologies, does the hard tech sector offer a better opportunity for investors than consumer tech?

Fred Hu: As far as regulatory risks are concerned, the hard tech space is almost like a safe haven for investors. Recent regulations have significantly impacted the consumer internet sector—including fintech, e-commerce, social media, gaming, delivery, ride hailing and education tech—while the hard tech space, notably semiconductors, industrials, AI, robotics, medical tech and clean tech, has been completely spared from the recent tech crackdown. Some sectors like renewable energy and clean tech have actually benefitted from increased government support given the national priority of transitioning to a carbon-free economy. That said, it would be a mistake for investors to ignore opportunities in China consumer tech. Tighter regulations on anti-monopoly power, data protection and consumer privacy will be implemented in China and elsewhere, but that doesn't mean that growth opportunities will disappear for many consumer tech companies. Far from it. China and the US are the two largest and most dynamic consumer tech economies in the world. So, despite some significant regulatory uncertainties in the short term, many consumer tech companies will be able to adjust, adapt and grow in the tighter regulatory environment by pivoting how they run their businesses or interface with their users.

Allison Nathan: How can investors differentiate between companies that are still great investments and those that aren't going to adapt as easily to the new regulations?

Fred Hu: At the risk of oversimplification, I would recommend paying close attention to three things. The first is the underlying technology—the better the technology, the better the company is as an investment target. Second is the business model—even with the same technology, some companies have developed more successful business models that will allow them to capture a greater share of the total addressable revenue opportunities. And three is the company's leadership and talent, including their

governance and compliance culture. As companies grow and become more successful, forward-looking and broad-minded leadership will recognize that their companies will come under increased scrutiny and that it's their responsibility to reassure the skeptical public that their tech remains a force for good. In particular, they need to avoid the "swashbuckling" culture that the media has attributed to Silicon Valley and the Chinese tech sector, in which there's a sense that rules and regulations don't apply to them. The best leaders will try to minimize the potential downside risks of increased public scrutiny by becoming more compliant with regulations while continuing to innovate.

Allison Nathan: Investors fear that compliance with new regulations will ultimately hinder companies' profitability and ability to innovate. Are those fears overblown?

Fred Hu: Judging by the recent market volatility and panicky selloff, it seems like investors are overly concerned. The communication of the recent regulatory actions was no doubt inadequate. But, again, whether it's in Silicon Valley, Hangzhou, or Shenzhen, as tech firms grow more powerful, governments will have a legitimate role in regulating their behavior. So investors need to accept that fact, but also hope that governments will strike a balance between regulating and giving companies enough space to remain profitable and innovative. I strongly believe that it's not the intention of Chinese policymakers to stifle innovation in the tech sector, or in the private sector more broadly; they're just aiming to promote sustainable and socially responsible growth. And I'm optimistic that regulators and tech companies can work together to develop a reasonable regulatory framework that both safeguards the public interest and enables the tech sector to grow and innovate.

Allison Nathan: Are you concerned about the recent scrutiny around variable interest entities (VIEs), which have served as an important mechanism for investment in the tech sector?

Fred Hu: I'm not too worried about it. VIEs have allowed foreign investors to invest in Chinese tech firms through a contractual arrangement between an offshore legal entity and an onshore operating entity, and hence have been a pragmatic solution to the lack of a proper legal framework for foreign investment in China's tech sector. While they've worked well for a long time, I would prefer to see a framework that allows foreign investors to invest in Chinese tech companies directly through onshore-domiciled entities. Chinese authorities could use the recent scrutiny around VIEs as an opportunity to revamp and update the domestic legal framework so that foreign investors can legitimately and directly invest in tech companies. A clearer, more predictable legal framework would arguably benefit both the tech industry and tech investors, and is therefore in China's best interest.

Allison Nathan: China plans to propose new rules that would ban data-heavy consumer tech firms from listing in the US. How significant of a shift would this mark?

Fred Hu: Despite the government's displeasure with Didi in the aftermath of its US IPO, the plain fact is that US listings have benefitted Chinese tech companies, enabling them to access sophisticated investors and capital in the world's largest and deepest capital market. And it's not just capital—China has plenty of capital available domestically. It's also that listing Chinese companies in the US exposes them to blue-chip institutional

investors and the scrutiny of US regulators, the media, shareholders, etc., all of which is conducive to improving business performance and corporate governance. So there are numerous benefits to listing in the US, and Chinese leaders have generally encouraged this. That said, data protection and governance concerns have led to mounting pressure both from the Chinese side and political hawks on the US side who have repeatedly threatened to ban or even delist Chinese firms from US exchanges. None of that is productive. There are other ways to address such concerns, and any form of financial or tech decoupling would inevitably harm the interests of both the US and China, and cause collateral damage for the world economy.

Allison Nathan: Given all that, what should Chinese policymakers do to make investors feel more comfortable?

Fred Hu: As I mentioned, the intentions and goals of the Chinese government are mostly legitimate, and the set of issues China is attempting to address aren't unique to China. What Chinese policymakers should focus on is improving the communication of its policies and clarifying its intentions. Before any future regulatory policies are enacted, consultations should be set up in advance between regulators and the potentially affected sectors and investors to avoid any misunderstanding. There is room for improvement when it comes to communication and implementation, and I believe Chinese officials are very much aware of that and will seek to rectify some of the unintended consequences of the recent regulatory actions.

Allison Nathan: So do you think recent market volatility was mostly driven by poor communication, similar to what happened during the 2015/16 episode of volatility?

Fred Hu: Yes. The market selloff during the 2015/16 episode was triggered by the People's Bank of China's (PBOC) attempt to adjust its exchange rate mechanism in an effort to better reflect underlying market forces. The intention was good, but the policy was implemented in a way that spooked markets. So the combination of a policy miscommunication and execution error led to a sharp drop in Chinese markets. The recent market selloff was triggered by the regulatory crackdown on tech, but again reflected a combination of inadequate communication and heavy-handed enforcement methods. While the underlying causes differ, the transmission mechanism from policy intent to policy execution and the market reaction is quite similar. And just like they did in 2015/16, markets will ultimately be able to forgive and forget this, because the wonderful thing about markets is that they are dynamic and adaptable, with an amazing capacity to process information and restore equilibrium. Sophisticated investors will eventually see through the shorter-term noise and focus on the big picture. And the big picture is that, despite the global tech sector becoming more regulated, it's reasonable to expect that the government in China—as well as in the US and EU—will ultimately strike the right balance between the necessary regulations to safeguard the public interest and the necessary freedoms to foster innovation, entrepreneurship, and value creation. Tech innovation holds the key to solving many global challenges, such as climate change and access to healthcare. China has already emerged as a major tech powerhouse. Without any doubt, China still offers tremendous opportunities for global investors.

Interview with George Magnus

George Magnus is an Associate at the China Center, Oxford University, and author of *“Red flags: Why Xi’s China is in jeopardy.”* Below, he argues that China's regulatory tightening is really about asserting the supremacy of the Communist Party, and that investors should tread cautiously.

The views stated herein are those of the interviewee and do not necessarily reflect those of Goldman Sachs.



Allison Nathan: Does the recent regulatory crackdown represent a new era for the Chinese economy?

George Magnus: This isn't business as usual. Before Xi Jinping became General Secretary in 2012, the Chinese Communist Party (CCP) had broken with its previous proclivity to govern by dictate and decree, instead using law

and regulation to create far more certainty in the business environment in China. But, in recent years and certainly today, law and regulation are being used for another purpose: to buttress the power of the CCP and fortify the nation and the economy. That's Xi Jinping's principal priority, along with enlarging the borders of the state, even if it comes at the expense of China's private sector. Xi's personal agenda is to revamp the party-centered China model to put "socialism" back into "socialism with Chinese characteristics"—the phrase previous leaders like Deng Xiaoping used to describe the adaptability of the Chinese system to the necessities of capitalism and economic development. Some observers see this as simply rhetoric, and believe China basically still has a state capitalist system. But, to me, the recent initiatives reflect a discrete break from the last 20 to 30 years, and—if anything—suggest that China is turning back the clock to a more Marxist-Leninist system of governance with conservative morals that we thought it had left behind a long time ago.

Allison Nathan: The Chinese government says its actions are about promoting more equitable and sustainable growth. What makes you think this is really about power?

George Magnus: It's a question of connecting the dots. After the introduction of a large program of economic and bureaucratic reforms at the Third Plenum of the 18th National Party Congress in 2013, Xi was heralded by many as a closet reformer. But, since then, real and market-oriented reform in most areas has ground to a halt. Looking at the latest crackdown, even if in isolation the cancellation of the Ant Financial IPO, or the investigation of Didi after its IPO in New York, or the new emphasis on "common prosperity" by President Xi seem to fit a pattern of addressing excesses in certain sectors or parts of society, the bigger picture suggests that this is all part of a broader drive by Xi Jinping to revitalize the Leninist idea of the purity of the party and its centrality in China. As he said himself, "north, south, east, and west, the party leads everything." In other words, in all realms of economic, social and political life, the party is in the vanguard of leadership and people and firms need to align their interests with it. To that end, Xi Jinping Thought is included in school curriculums, corporate governance, and media coverage, and the CCP has exhorted private sector executives to study government policy and priorities, and is pushing them to toe the party line. So the big

picture here is really about the supremacy and controlling influence of the party, with the president himself at the pinnacle.

Allison Nathan: US and EU governments are also scrutinizing Big Tech and implementing new regulations for the digital era. Why are China's actions any different?

George Magnus: The West is going through its own "tech lash" against all-powerful tech companies, and shares the same goals as Chinese authorities in many respects, including protecting workers in the gig economy, safeguarding consumer data and national security, and levelling the playing field for lower-income households. But what's different about China is that regulation is highly politicized, and is ultimately all about serving the interests of the party. The fact that the corporate crackdown is on private firms rather than on state-owned enterprises (SOEs) and local governments and that the "common prosperity" focus is seen as targeting people with high and/or "unreasonable" incomes suggests that this is a campaign to tame capital in China and bring it closer under the party's control, and to clamp down on alternative authority figures to the government. While the Chinese government appears to be taking a strong lead in some areas, in other respects, it seems to be acting from a position of weakness; it doesn't like the idea of opposition in any case, and certainly not as presented by billionaires and celebrities. Of course, politicians in the US, UK etc. also have vested interests in pursuing various regulatory initiatives. But they do so knowing that they're subject to a legal system with neutral contract enforcement, and the government can get its nose bloodied if it steps out of line. That doesn't happen in China—what the government says goes, and everyone follows suit.

Allison Nathan: How far do you think things could go in terms of further regulatory tightening?

George Magnus: If this is the beginning of a broad campaign to bring the private sector to heel and implement the common prosperity agenda, as I suspect, then other sectors could face further regulatory tightening. Real estate, where "cowboy capitalism" has been allowed to prevail, would be a likely target. Pensions, social care, social welfare and healthcare could also come under scrutiny. Despite the perception that healthcare in China is free, out-of-pocket healthcare expenses for many Chinese citizens are actually very high. And the government will target those sectors that help demonstrate it's acting to achieve a more equitable society. I would also expect more restrictions on foreign listings of Chinese companies. The intervention after Didi's IPO seemed like the prelude to a broader ban on US listings, and perhaps even retraction of the Variable Interest Entity (VIE) business structure. The Chinese government now looks set to implement a blanket prohibition on any company with large amounts of consumer data from listing in the US, and more restrictions are likely to follow. The interests of Beijing and Washington are actually aligned on this issue; the US doesn't

want to list Chinese companies that don't conform to generally accepted accounting principles, and China doesn't like US listings because they don't want the US government prying into their business. So these aren't flash-in-the-pan developments. Both tighter regulation of domestic sectors and instances of financial decoupling will rise over time.

Allison Nathan: What might be the economic implications of these government actions?

George Magnus: The recent government actions raise serious questions about China's ability to continue to innovate and sustain high growth rates. They're problematic because—whether by threat, diktat, the punishment of executives, or very recently, for example, the government's taking of a board seat at ByteDance—they amount to government intervention into the operational management of business. Fast-growing but not necessarily profitable companies, like the e-commerce platform Pinduoduo, have succumbed to the new 'Tertiary Distribution' slogan and pledged to "donate" billions in future earnings to social programs. Nobody told them they had to, but there's now pressure on private companies to show they're supporting national social and economic goals. Party members are increasingly being asked to take on roles in staffing and monitoring at large private companies. All of this adds up to a different sort of *modus operandi* for the private sector than in recent years, and is leading companies down a path they wouldn't have otherwise chosen to go.

The question is what does this do to innovation? We often conflate inventions in science and technology with innovation. But innovation more often involves business decisions about organization, management, marketing, branding, commercialization and profitability. And if you introduce more and more government restrictions on what companies are allowed to do, it's less likely that they'll be in the same pole position going forward that they have been in recent decades. The net result will be to add to the structural economic headwinds that China already faces and potentially reduce trend growth. These actions will also complicate or delay the realization of the Holy Grail that policymakers are looking for to propel future growth: higher productivity. China's long-term economic problem, apart from debt and demographics, is that it has reached a productivity hiatus. It needs a reset, which requires reform, but that reform isn't on the agenda. And this regulatory intervention is going to set that back significantly.

Allison Nathan: But won't sectors aligned with the state's agenda continue to boom, boosting growth?

George Magnus: It will be horses for courses, with the government singling out some sectors for restrictions and others for support. For example, finance is clearly a sector the government seems keen to support; the People's Bank of China (PBOC) and other regulators, at least, are acutely aware of the dynamic role that the finance sector plays in the economy. In the tech space, I've seen the argument that the CCP is only taking action against "frivolous technologies" like gaming, video streaming and ride sharing in the consumer tech space, and is sparing harder hitting tech sectors, such as AI, quantum computing, and others that are driving the future of innovation. Well-supported SOEs have already been placed at the pinnacle of these preferred tech sectors. But I'm not sure that regulating

consumer technology won't be harmful. Things like Apple watches and Xiaomi telephones fulfill a very important role not just as products, but through the processes companies use to produce them, which creates spillovers for technological adoption in areas like retail, wholesaling and transportation. Jettisoning these technologies understates their significance and risks stifling innovation. So, the regulatory rollout won't be uniform. But the drift toward more intervention and political control will win out in the end because that's the government's *raison d'être*.

Allison Nathan: Given all of this, should investors be rethinking their approach to China?

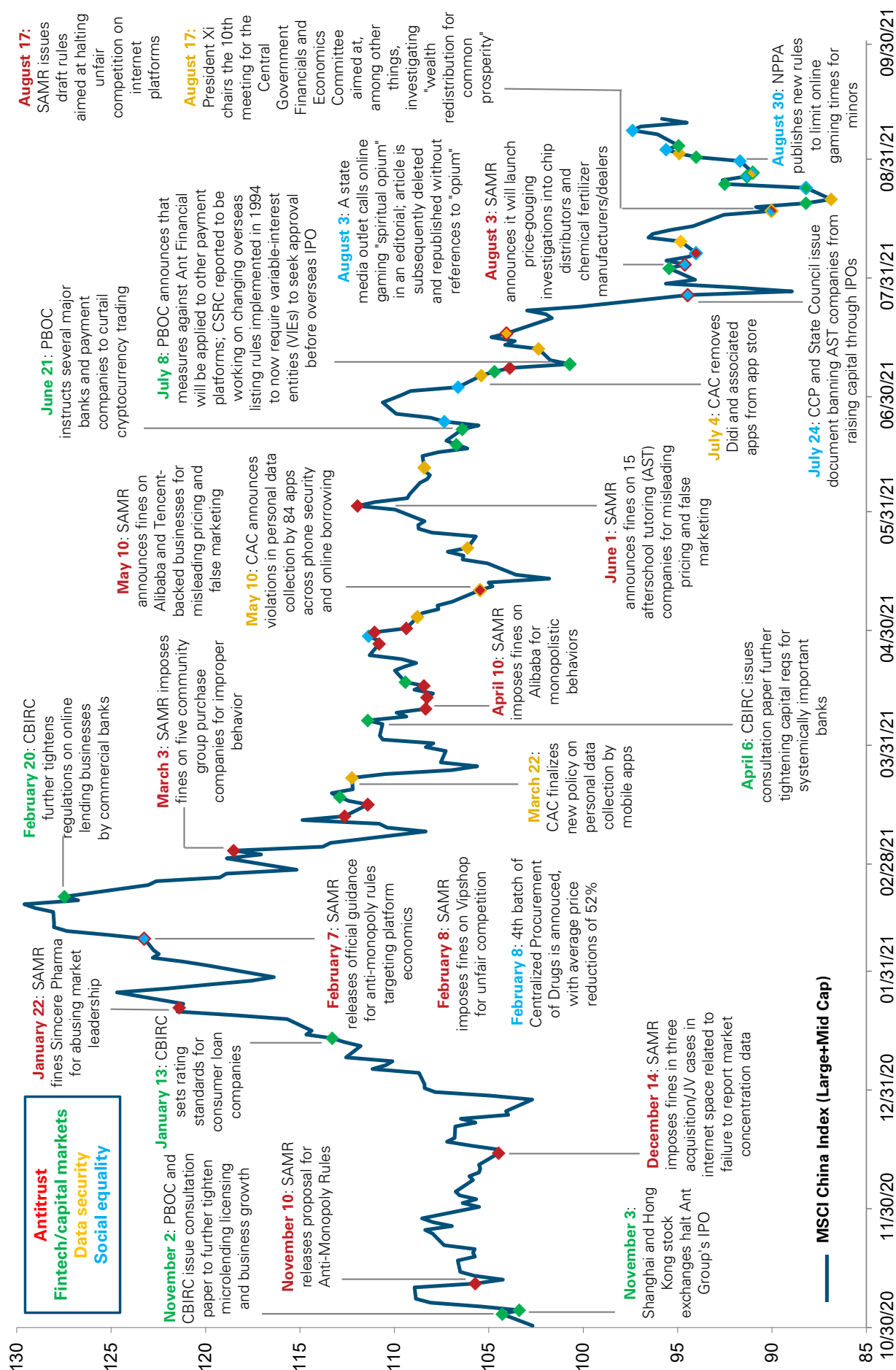
George Magnus: For any investor looking at an index that's dropped 40-50% in six months, a bell inevitably goes off that says: value! But in this case investors should be careful, because China is not your run-of-the-mill investment universe given the political intervention and extremely limited company transparency. Today, the balance of opportunity and risk in Chinese markets is shifting towards risk based on what investors know versus what they don't. As we've seen, the intervention of rules at random moments is difficult for most investors to navigate. And this isn't a momentary event in which the government will simply reverse course in six months' time akin to what we saw in 2015/16. In that episode, hubris related to the government's fervent cheerleading of its stock market, combined with a PBOC communication error regarding the renminbi, gave rise to a year of financial volatility, the loss of \$1tn in reserves and the imposition of capital controls. But the government eventually put things right, and actually learned from the experience.

This time around is more pernicious. This regulatory crackdown has the hallmark of a crafted plan to reinforce the primacy of the party and the state machine and subjugate private firms and entrepreneurs in the run-up to the 20th National Party Congress of the CCP in October 2022, where Xi is widely expected to break with tradition and stay in power for a third term, at least as president—something that hasn't happened since Mao. That in itself is a problem for China, because a lack of clearly understood and transparent rules for change of government can make for not only very powerful leaders, but also chaos in the event that people don't think the leader should remain in the role. So this is pretty serious stuff, driven by political dynamics that will persist. I am not saying that investors cannot make money in Chinese markets. But they're much riskier than what we thought six months ago. So caution should be the key watch word, and investors should fully understand what they are buying, and that prices are discounted to reflect this risk.

Allison Nathan: What would make you less bearish?

George Magnus: If I saw evidence that the government was again serious about "reform and opening up" and genuinely committed to allowing market mechanisms determine the allocation of capital and credit, then I'd turn more optimistic. But there are no signs that the CCP has any serious intentions to undertake the large-scale redistribution and privatization efforts needed to facilitate the transition to a more consumer-oriented economy or wean the economy of its reliance on infrastructure and credit expansion, because all of this involves a political agenda that's anathema to the party. So I'm not holding my breath.

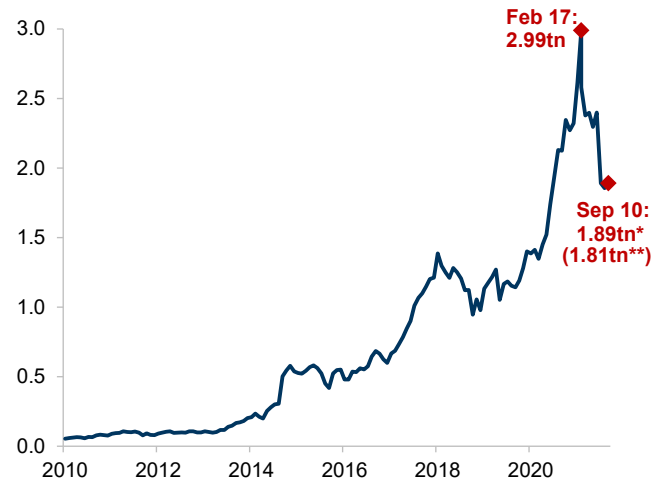
A (short) history of China regulation



Special thanks to the GS Asia Strategy team for their help with this exhibit. Source: MSCI, Goldman Sachs GIR (data as of September 10, 2021).

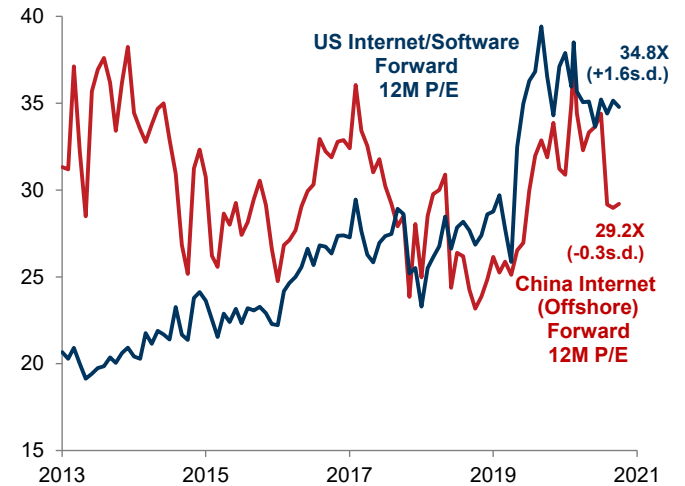
Chinese market volatility in pics

China tech has lost ~\$1tn in market cap since February
Total listed market cap of Chinese internet/tech stocks, \$tn



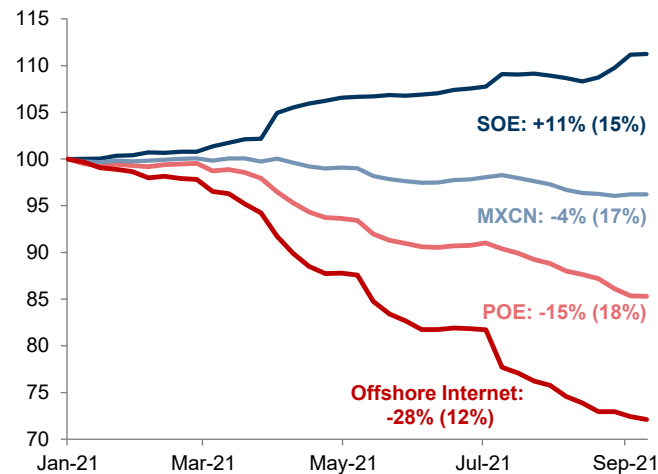
Note: *Includes all stocks; **excluding stocks listed after Feb 17.
Source: FactSet, MSCI, Bloomberg, Goldman Sachs GIR.

China Internet now trades at a sizable discount to US peers
Forward P/E, multiple



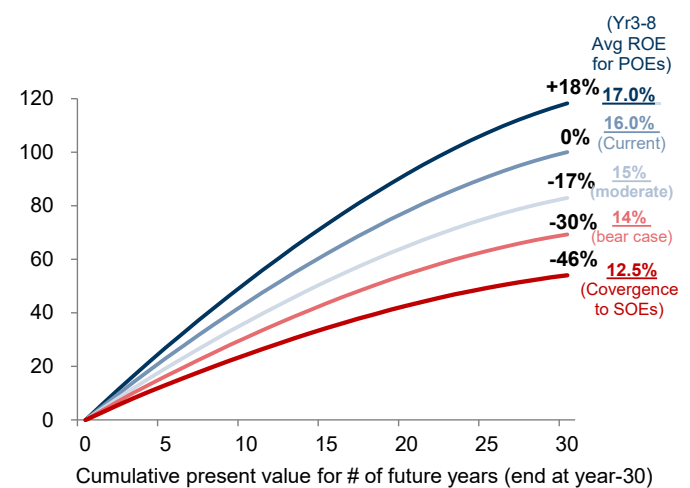
Source: FactSet, MSCI, Goldman Sachs GIR.

Consensus EPS for offshore Internet revised down 28% ytd
MXCN EPS Revision (Average of 2021/22 EPS, CNY), %



Note: POEs are privately-owned enterprises and SOEs are state-owned enterprises; bracketed numbers represent 2020-22E EPS CAGR on consensus estimates.
Source: FactSet, Goldman Sachs GIR.

Determining fair value of China POEs depends on profit profile
MSCI China Fair Value (Current = 100) based on ROE assumption



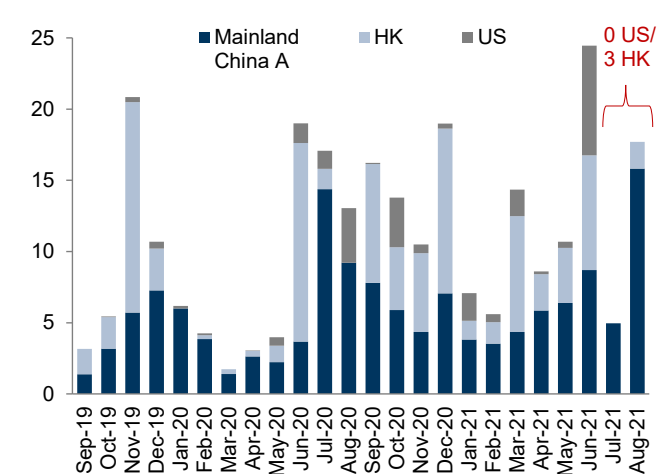
Note: Under a DCF model, with fixed ERP (= current market implied), near-term growth (consensus) and other model assumptions.
Source: FactSet, Goldman Sachs GIR.

Hedge funds have been reducing China risk
Hedge fund positioning/flows; pp (lhs), % of net MV (rhs)



Source: GS Prime Services data as of Sep. 13 2021, Goldman Sachs GIR.

Offshore Chinese IPO volumes have fallen since June
Number of IPOs of mainland Chinese companies by venue



Source: Wind, Bloomberg, Goldman Sachs GIR.

Special thanks to the GS Asia Pacific Portfolio Strategy and Prime Services teams for these charts.

Q&A on China's regulatory agenda

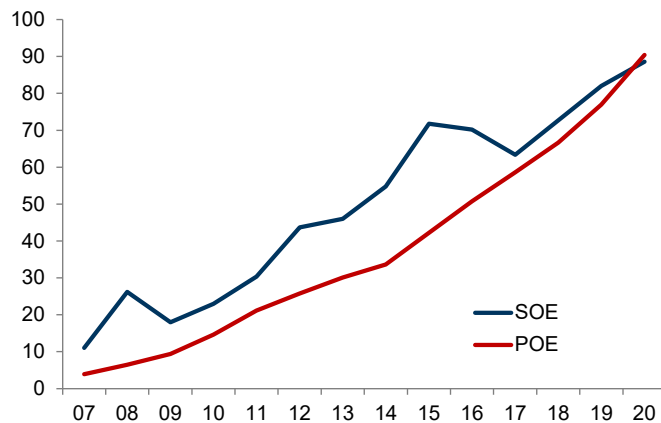
Hui Shan answers questions about China's regulatory and "common prosperity" agendas and their implications for the economy

Q: Are the latest regulations an attempt to crack down on the private sector?

A: Although many private companies have seen significant equity price declines, we don't think the ongoing regulatory tightening is aimed at specific ownership types, but rather is focused on ensuring that the business sector's investments and development—whether involving state-owned or private-owned enterprises (SOEs or POEs)—are broadly aligned with top policymakers' economic goals. The result has been that certain sectors have been targeted for regulatory scrutiny or government support independent of their ownership structure. Indeed, in recent years, subsidies to POEs have grown faster than those to SOEs as a result of the government's promotion of the "hard tech" sector, where POEs are more concentrated.

Subsidies to POEs have caught up to those to SOEs

Government subsidies reported by listed companies, RMB bn



Source: Wind, Goldman Sachs GIR.

And, in the latest round of regulatory tightening, the government targeted the education and internet industries that happened to be dominated by private companies, based on a broad desire to regulate these sectors. So we don't think that the latest wave of regulations should be interpreted as a deliberate crackdown on POEs, despite the government's

desire to "make SOEs bigger and better" in its latest strategic plan, and Vice Premier Liu He emphasized the importance of private businesses to the Chinese economy in his latest speech.

Q: If they're not targeting the private sector, then what are the regulations targeting?

A: We think the government's focus is on specific actions (e.g., anti-competitive behavior, data collection, use, storage and transmission that are deemed as infringing on consumer privacy or national security) and specific industries (e.g., after-school tutoring, online gaming). The ultimate goal is to restructure the economy to be more equitable and productive. We scanned through the text of the 14th Five-Year Plan released in March to identify the sectors to be promoted by the government as well as those to be regulated. For example, while the platform economy, after-school tutoring, private-public partnerships (PPP), and charity organizations are slated for additional regulation under the plan, green manufacturing in the chemical and papermaking industries, sports and building management services, internet security systems, and domestic consumer brands are set to be promoted. Consistent with this policy direction, energy and industrials equity prices have risen by about 20% whereas financials and real estate equity prices have fallen by more than 10% since the plan's release.

Q: What does the government's focus on "common prosperity" really mean?

A: The emphasis on "common prosperity" doesn't imply that the policy priority is solely redistribution from the rich to the poor. Importantly, the phrase "common prosperity" includes both "common" and "prosperity". This suggests policymakers are placing equal weight on reducing inequality and increasing output, as opposed to mainly prioritizing growth as they've done in previous decades. To understand the government's thinking when it comes to common prosperity, it is instructive to look at Zhejiang province's action plan for 2021-2025 given that Zhejiang is the common prosperity pilot zone. The plan includes redistributive targets such as increasing the wage share of GDP to at least 50% and ensuring 80% of households are middle-class with annual disposable income between RMB 100K (~\$15.5K) and RMB 500K (~\$77.5K). But it also intends to double household income within 10 years. In other words,

The 14th Five-Year Plan specifies both sectors to be promoted and those to be regulated

Sectors to be promoted in 14th FYP	Sectors to be regulated in 14th FYP
加快 (accelerate)	遏制 (contain), 打击 (crack down), 规范 (standardize)
Modernize governance system and capability	Control speculative demand for property
Build national labs in key strategic tech areas	Control high energy-intensity and high-emission projects
Master bottleneck technologies in software, material, parts and components.	Crack down on illegal income and income derived from monopoly and anti-competitive actions
Develop green manufacturing in chemical and papermaking industries	Crack down on illegal financial activity
Develop bio-related technologies in medicine, seed, material and energy areas	Standardize port and highway transportation costs and fees
Develop health, elderly care, childcare, travel, sports and building management services	Regulate PPP and infrastructure REITs
Build centralized big data system and supercomputing centers; digitalize traditional infrastructure	Regulate shared economy, platform economy and new individual economy
Develop non-fossil energy; increase wind and solar power generation	Standardize central and local government responsibilities, fiscal transfers, and tax incentives
Develop cold chain logistics and cross-border e-commerce	Regulate after-school tutoring
Focus on high-end semiconductors, AI, cloud computing, quantum computing, and other frontier technologies	Regulate labor dispatch practice and ensure fair labor compensation
Develop AI security and internet security systems	Regulate online charity platform
Consumption upgrading by cultivating domestic brands	Regulate industry associations and charity organizations

Source: 14th Five-Year Plan, Goldman Sachs GIR.

common prosperity is as much about "prosperity" (which is pro-growth) as it is about "common" (which is redistributive).

The latest regulations and structural reforms should be viewed as steps toward achieving this long-term goal of common prosperity. On "prosperity" and increasing output, production factors such as labor, capital and productivity need to be boosted. Policies to address this include the "third child" policy and reducing the cost of housing, education and healthcare to lift the birth rate (labor), directing investment away from property and finance toward the real economy (capital), and upgrading manufacturing (productivity). On "common" and reducing inequality, the government may employ pecuniary policies including increasing labor's share of GDP, and redistribution through taxes, transfers and donations. The government may also employ non-pecuniary policies to provide equal opportunities and improve social mobility, including by promoting education equality (e.g., banning after-school tutoring and restricting online gaming) and access to public services such as healthcare and housing (e.g., Hukou or other reforms that allow migrant workers to access services in cities).

Q: Does this new focus mean the government no longer cares about innovation?

A: No. In our view, the government is now placing more emphasis on innovation than before, not less. This is evident in its own statements. In the 14th Five-Year Plan, the word "innovation" (创新) appeared 165 times, the word "technology" (科技) 89 times, and the word "digital" (数字) 81 times, more than the 54 times that the word "party" (党) was mentioned. Technology, innovation and the digital economy are clearly high on the government's priority list in designing the economic policies of the future.

But the type of innovation that the government is focused on has shifted. The US-China trade war has made the Chinese government keenly aware of its vulnerability to US export controls when it comes to cutting-edge technologies such as semiconductors, aerospace equipment and special materials. As a result, mastering these "bottleneck" technologies and increasing self-reliance have become a top focus in China. On the other hand, the internet sector comprises only a fraction of China's economy and some innovations in this sector potentially pose financial risks (e.g., under-capitalized fintech companies), infringe on user privacy (e.g., use of personal data without consent), or provide limited protections for middle-income workers (e.g., the lack of labor protection for flexible employment). The government believes these behaviors need to be restricted by regulation. Bottom line: we believe the government cares more about innovation now than ever before, but the focus is shifting toward "hard tech" (e.g., semiconductors and materials) as opposed to "soft tech" (e.g., internet companies).

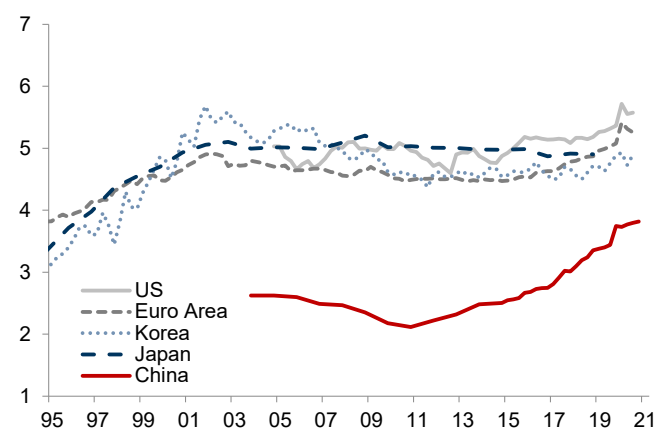
Q: What are the economic implications of these shifts?

A: The spate of regulatory actions by the government is likely to be a drag on near-term activity, even if they're well-intentioned and well-implemented. That said, they could lead to more sustainable growth in the long-term. Sector-level tightening

impacts economic growth through three channels. The first channel is through lower levels of employment and activity in restricted areas such as tutoring and gaming. This is significant for specific industries but manageable at the macro level according to our estimates, although policy coordination is important to facilitate workers' transitions to other industries. The second channel is through financial conditions. In July, our China Financial Conditions Index (FCI) tightened by 15bp on the back of slower credit growth, wider credit spreads, and lower equity prices. Although not entirely attributable to regulations, the 15bp tightening in the FCI could reduce growth by 20bp with a two to three quarter lag. And the third channel is through heightened uncertainty that could hold back private investment. The precise size of this impact is difficult to gauge, but judging from the questions that we receive from companies and investors, the lack of understanding of and visibility on policymakers' next moves on the regulatory front is indeed weighing on sentiment and investment decisions.

IT services are only a small part of China's digital economy and technological innovation

Share of IT services in GDP, % of GDP



Source: Haver Analytics, Goldman Sachs GIR.

Q: What are the policy implications of these shifts?

A: We believe that we are in a "micro takes and macro gives" environment in which monetary and fiscal policies should loosen on the margin to offset the drags from regulatory tightening. Recent news on monetary and fiscal policy has been encouraging. To be sure, policymakers have shifted from the "counter-cyclical adjustment" framework of previous years to a "cross-cycle adjustment" framework today, which appears to mean a more controlled and gradual pace of easing in the face of economic slowdown to avoid stimulus in this cycle becoming financial risks in the next cycle. We expect Q3 growth is likely to be weak based on the recent Delta variant outbreak and local lockdowns to control the spread of the virus. But Q4 growth should be strong on a sequential (not year-over-year) basis with the easing of virus-related restrictions and macro policy support. If our forecast of a weak Q3 is correct, then 8.5% qoq ann. growth in Q4 will be needed for year-over-year growth not to fall below 4%, implying a moderate step up in both monetary and fiscal support in Q4.

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Goldman Sachs (Asia) LLC

Interview with David Daokui Li

David Daokui Li is the Mansfield Freeman Chair Professor and Director of the Academic Center for Chinese Economic Practice and Thinking (ACCEPT) at Tsinghua University. He is a former member of the Monetary Policy Committee of the People's Bank of China and the Chinese People's Political Consultative Committee. Below, he discusses how Western observers and investors can better understand the recent regulatory developments in China.

The views stated herein are those of the interviewee and do not necessarily reflect those of Goldman Sachs.



Allison Nathan: The recent regulatory developments in China caught the market by surprise. But to what extent do they really represent a shift in the government's policy approach?

David Li: These shifts are not a surprise if you put them into a broader context. Since coming to power in 2012, President Xi Jinping has said that China

will pursue quality growth rather than rapid growth. By quality growth, he means three things: growth that is based on innovation rather than resource consumption or intensifying investment, is inclusive or equitable for society as a whole, and is environmentally sustainable. Xi has consistently pursued these three long-term policy goals, and the recent regulatory changes, including the regulation of internet platforms and the education services sector, are reflections of this trend.

Allison Nathan: Even if these regulatory shifts are consistent with long-established policy goals, their implementation has arguably been abrupt, blunt and sweeping. Why has the government pursued this type of implementation?

David Li: The recent reforms have undoubtedly been very abrupt and disruptive. While the ideas behind them are quite reasonable, they've been implemented in a way that violates a basic principle of the reforms of the past four decades: grandfathering. Historically, new rules have been grandfathered in, meaning old rules continue to apply to existing activity while new rules only apply to future ones. There's no grandfathering now; all reforms affect not only future economic activities, but also existing ones. I recently asked someone who works in very close physical proximity to the office of the president why that is, and he said something very revealing: Xi Jinping realized that reforms are more and more difficult to implement nowadays because grandfathering gives everyone license to argue for exemptions, and, in the end, the reforms aren't implemented. So Xi has instead embraced reforms that target a few areas he perceives as very urgent and has implemented them in a sweeping fashion, giving no one a chance to evade them.

Allison Nathan: The fact that some reforms, like restrictions on the for-profit education sector, have targeted private entities has given rise to the view that this is more about government control than achieving a more equitable society. Couldn't a different policy approach have avoided this narrative by more squarely targeting the core issue that students' outcomes rest too much on competitive exams?

David Li: Let me first just clarify that not all of the private educational sector is subject to increased regulation. The recent regulations restricted for-profit activities in compulsory

education—grades one through nine—but for-profit services in non-compulsory education, including everything from tutoring older students to singing and swimming lessons, are still allowed. So investors are arguably overly panicked about providers of private education services in China that still have a bright future in providing services that haven't been restricted, such as English tutoring to senior high school students and adults.

That being said, policymakers chose such an approach because there are no easy alternatives to the country's overreliance on exams in selecting the students that are most likely to be successful and most deserving of spots at top colleges. A different model, such as the US college admissions system that uses many indicators to judge students' potential success including grades and recommendations in addition to standardized tests, would likely lead to a tremendous amount of corruption, as parents and students would have too many channels to attempt to game the system. So policymakers have pursued the second best or even third best option to help level the playing field for lower-income households by eliminating excessive tutoring and teaching outside classrooms. This may not be the optimal solution, but in the minds of reformers and policymakers, it's better than doing nothing at all.

Allison Nathan: Beyond education, many observers have argued that some of the recent regulations on the platform economy, as in the case of Didi, are fueled by the Chinese Communist Party's (CCP) concern that these companies are becoming too powerful and need to be reeled in. Is there any truth to that narrative?

David Li: That narrative isn't true because it's overgeneralized. I see two motivations behind the government's actions in cases like Didi's. The first motivation is a substantial, and, in my view, excessive, concern over digital or data security among Chinese policymakers. The national security implications of listing companies with vast amounts of personal data outside of mainland China are unclear, and something that policymakers haven't completely thought through. So, in my personal opinion, they are trying to play it safe by restricting or banning such listings, as well as implementing other restrictive measures. This may result in unnecessary regulations, but US congressmen and other policymakers around the world are arguably also erring on the side of caution when it comes to potential national security concerns that are not well understood. And the second motivation is concern among policymakers that some of these companies are becoming so aggressive in their expansion plans that they are pushing ahead without taking the appropriate steps vis-à-vis regulators. That is, in all of these individual cases, CEOs and founders may not have gotten full clearance from all regulators in China. And authorities have viewed this as

companies' attempts to elude the government, triggering somewhat of an overreaction from Chinese authorities in thwarting the companies' plans.

Allison Nathan: But doesn't that give some credence to the narrative that policymakers believe these companies need to be more deferential to the state, and will suffer consequences if they aren't?

David Li: To a certain degree, but it's not so simple. In past decades, the government had generally stood back, allowing unfettered innovation in flourishing industries no matter how successful individual businesses or entrepreneurs became. But over the past decade, the Chinese government and CCP under Xi Jinping have been pushing an idea that I call "professionalism": leave politics to the political professionals and business to the business professionals. The state wants Jack Ma, for example, to stick to his own area of expertise—e-commerce—and to not interfere with areas it considers to be the purview of the state, including the country's social, media, education, and cultural systems. Over the past few years, Ma has been venturing into media, and now owns nearly 30 provincial-level media companies, as well as the *South China Morning Post*. Those kinds of investments capture the attention of the government. And the state also believes that political officials shouldn't get involved in business. Many officials are currently under investigation for corruption for doing so. This represents a new era for China: business is business; politics is politics—don't mix them.

Allison Nathan: Given the broadly negative reaction of foreign investors to these shifts, are you concerned that they could stifle innovation in the Chinese economy, potentially denting its longer-term growth prospects?

David Li: In the short run, I am concerned that negative investor sentiment will lead to a shortage of investment in many sectors of the Chinese economy. However, over the longer run, say, one or two years, I am not concerned because the Chinese economy has three things working for it in terms of innovation. First, China has a huge domestic market, and President Trump's policy of restricting high-tech exports to China, which is still ongoing to some extent, actually increased Chinese demand for domestically-produced high technology goods. Second, China has a significant amount of savings and funds that can be invested in this area. China's liquidity, as measured by cash plus bank deposits, is twice as large as China's GDP, versus in the US, where it's about equal to GDP. Given that China's economy is about two-thirds the size of the US economy, that's quite a lot of potential funding. And third, and probably most importantly, China has a very large engineering workforce: 40% of China's eight million annual college graduates major in engineering, more than the engineering graduates of the US, Europe, India, and Japan combined. And these graduates can add value to companies immediately after college given the practical nature of the Chinese engineering education system. So these three factors leave me optimistic about the future of innovation in the Chinese economy, although China has work to do to realize this future.

Allison Nathan: Where would investments be most productive?

David Li: The area where China has significant work to do to catch up with other countries is mainly in "hard technologies", for example, high-quality electronic components. China is great at building and assembling systems—rapid rail systems, bridges, and ocean tankers, etc. But inside these systems are many key components that China still relies on foreign countries to provide. Many small companies in Japan, Germany and the US—which I refer to as "invisible champions"—have the niche technologies, patents, or know-how for high-quality electrical and mechanical components that are largely unknown to consumers but are critically important for making Boeing airplanes or Tesla cars. This is what I call the Swiss cheese theory of the Chinese economy—it looks beautiful as a whole but is missing many parts. While China can't and shouldn't try to make everything in today's globalized world, it needs more investment in these types of technologies, which the government is encouraging.

Allison Nathan: How can investors better understand the areas in which the Chinese government is likely to encourage investment versus restrict it going forward?

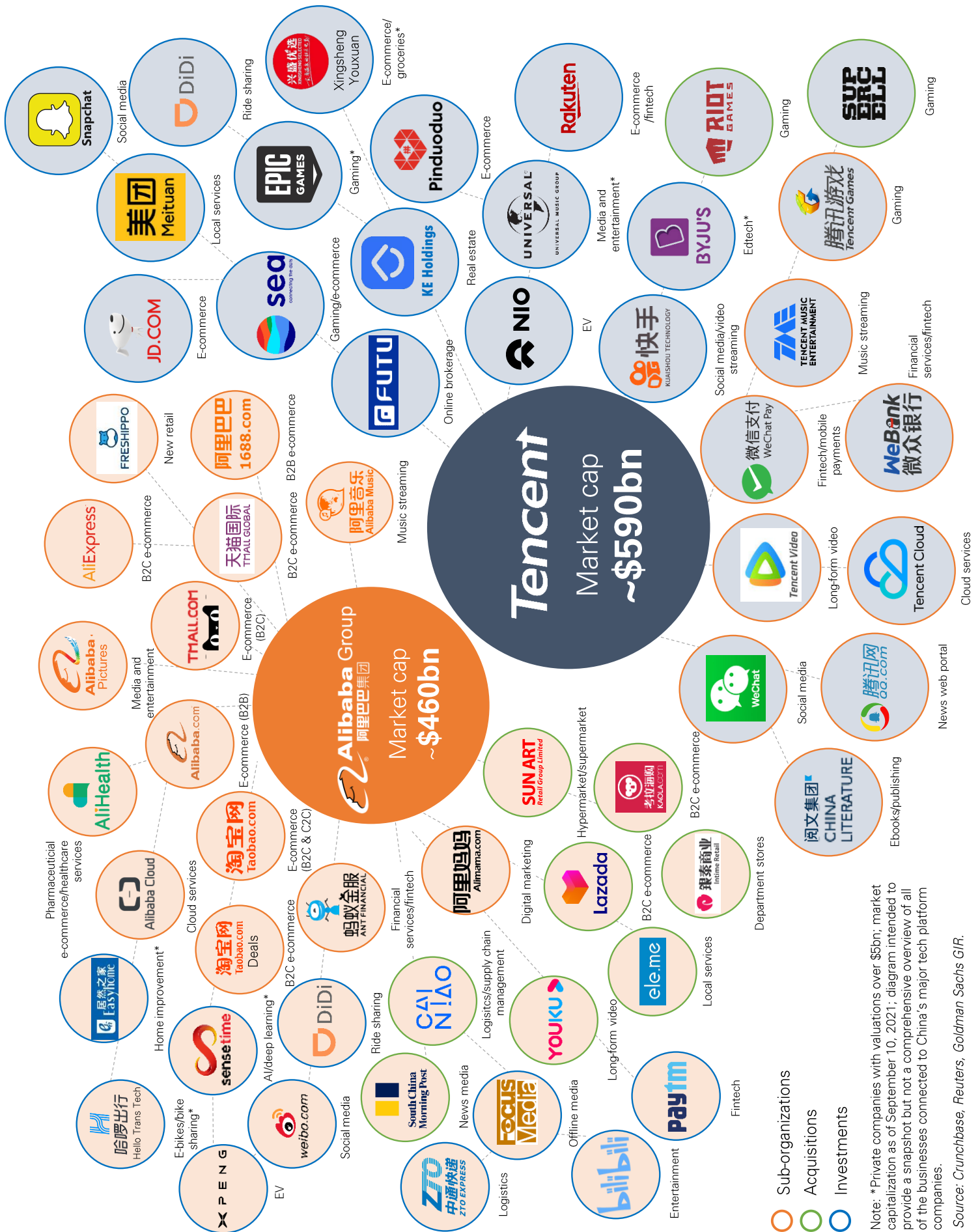
David Li: Investors have to understand the underlying rationale behind the ongoing campaigns in order to be able to predict what may be restricted in the future. The logic is clear: the government under Xi is guarding areas such as social, media and cultural ones, where it has clear goals—like promoting a more equitable society—and also worries that its authority, control, or influence could be compromised by external investment. So regulations will likely remain targeted at areas like compulsory education, gaming, where concerns that internet games are like opium for children have been long circulating in China, the media, which is believed to be susceptible to interfering in politics, and perhaps cultural businesses like movie production.

However, investments will likely be welcome outside of these areas, especially in the hard tech sectors that we discussed and in the financial sector, as well as in manufacturing, beauty and health services, etc. And the government is endeavoring to reassure investors on this front. Just recently, the China Securities Regulatory Commission (CSRC) announced that China will try to cooperate with the US regulation on audits of Chinese companies listed on the US financial markets. A timetable has already been announced for reforms to open up China's financial services sector. And further commitments to push through necessary reforms in other areas of the economy are likely ahead.

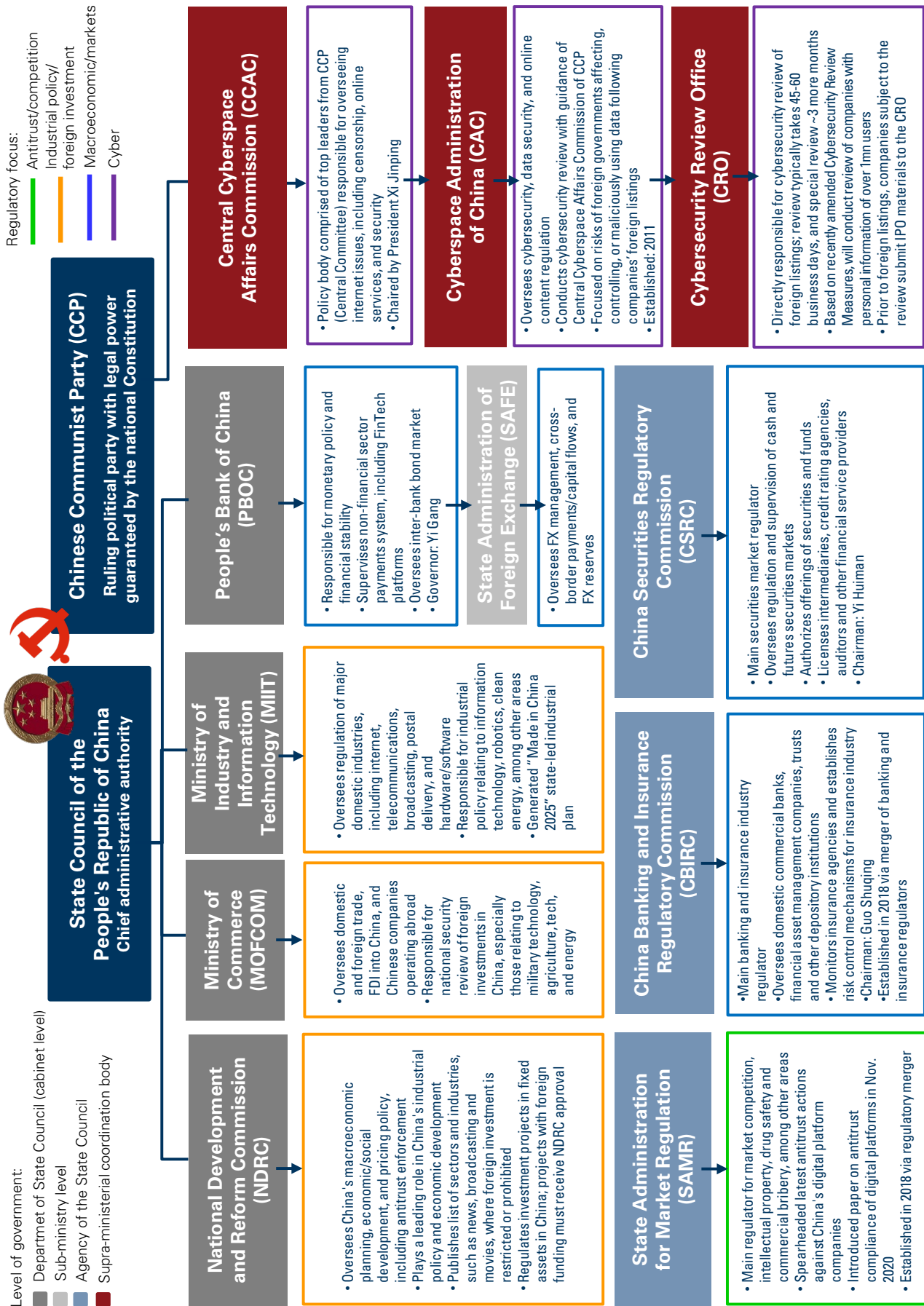
Allison Nathan: Given all that, what's your key message to investors right now?

David Li: My key message for investors in China is be discretionarily optimistic. Invest in companies that still have a bright future but have suffered collateral damage from the recent regulatory shifts. And, regardless of what's happened on the regulatory front, investors shouldn't lose sight of one simple fact: technology is changing the Chinese economy, the US economy, and the world. So I urge all investors not to lose their confidence and interest in investing in technology, because the big picture is still favorable for technology.

Digital dominance: China's tech platforms



How China regulates



Note: After-school tutoring (AST) restrictions were initiated by the Ministry of Education (not shown here); State Council manages the day-to-day work of the CCAC; other ministries and government agencies not shown here but that are involved in various regulations include the Ministry of Public Security and the Ministry of State Security.

Source: IMF, US-China Business Council, Reuters, China Briefing, iStockPhoto, Goldman Sachs GIR.

Investing under a new regulatory regime

Tim Moe and Kinger Lau answer questions about China’s recent regulatory developments and the implications for Chinese equities

The ongoing regulatory changes in China have inflicted more than \$1tn of market cap damage to Chinese equities since their recent peak in mid-February, with the losses mostly concentrated in the offshore Tech sector, which represents 40% of MSCI China market cap. Here, we address frequently asked questions about the recent regulatory developments and the implications for equities.

How long is the regulatory tightening cycle expected to last?

The prevailing regulatory tightening cycle is unprecedented in terms of its duration, intensity, scope and the velocity of new policy announcements, as reflected by our Privately-Owned Enterprises (POE) Regulation Proxy, which quantifies changes in regulatory conditions using keyword searches of more than 1.5 million online news articles.

The paradigm shift is also confirmed by the [detailed guidelines](#) jointly published by the Central Committee of the Chinese Communist Party (CCCCP) and the State Council on August 11, suggesting that regulation will likely be a continuing and prominent feature of the equity market for the foreseeable future. Most investors we have spoken to believe more regulations will be unveiled this quarter and next, although the intensity/severity of regulation could moderate somewhat from recent peaks (i.e. turning a profit-seeking segment into non-profit as in the case of after-school tutoring may not be applicable to the broader market). There are also a few events

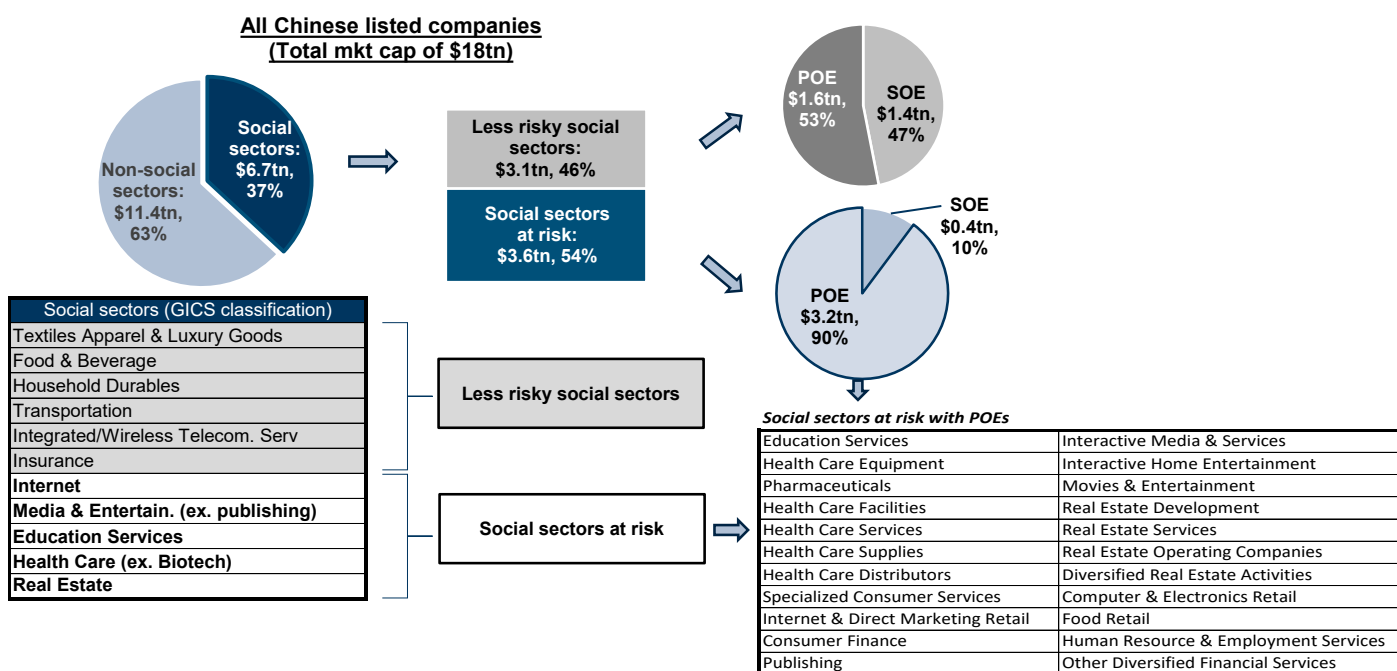
over the next six months that could potentially shed more light on the duration of the regulatory tightening cycle (see pg. 25).

Why have certain sectors been targeted, and which ones might be next?

Systematically organizing the new regulations should help investors better comprehend the underlying policy goals behind the recent measures, and why certain sectors have been targeted. To that end, we have identified four categories—Antitrust, Financial Markets, Data Security and Society—that cut across the nearly 100 key regulations that have been announced/implemented since late 2020 (see pg. 8). This leads us to believe that the new regulations are targeted in nature and aim to address and rectify specific issues in certain industries, such as education, internet platforms and the property market. But, at a higher level, the measures also seem to underpin the overarching objectives of containing systemic risk, strengthening social stability/harmony and ensuring the primacy of the Chinese Communist Party.

While the scope of tightening is clearly broad-based, the fact pattern so far suggests to us that social welfare is high up on the policy agenda, and that policymakers may prioritize social fairness/stability over capital markets in areas that may be considered social necessities. As such, we believe that \$3.2tn of market cap in what we deem “Risky Social Sectors” (representing nearly 20% of the total market cap of listed Chinese companies), mostly residing in industries such as Internet, Education, Media & Entertainment, Real Estate and Healthcare, could be disproportionately exposed to further regulatory attention.

Our framework suggests \$3.2tn of market cap could be exposed to further regulatory uncertainty



Note: Internet contains companies in other sectors that start with “online/internet” in their business description.

Source: Wind, FactSet, Goldman Sachs GIR.

What's priced into equities?

We think the new regulations will impact equities via two main transmission mechanisms: a flatter earnings growth trajectory and an upward repricing of the policy/regulation risk premium. Our conversations with investors suggest that there is a wide distribution of views on regulations and their potential medium-term impact on corporate fundamentals and fair valuations, ranging from a scenario where the latest drawdown could present a strategically attractive opportunity to accumulate structural winners in China, to an extreme case in which private enterprises could be nationalized or subject to regulated profitability. Our baseline view is somewhere in between: we believe regulations should impact companies' future earnings trajectory and deflate their valuation premium in socially important sectors, but not to the extent that the profitability profile for POEs/New Economy equities would be structurally impaired, given the strong underlying demand in the digital economy, the adaptability of the POE sector and the government's commitment to support the development of foundational technologies. Our scenario-based sensitivity analysis, leveraging our social vs. non-social disaggregation, indicates that a combination of medium-term ROE degradation and/or permanent risk premium uplift has already been discounted in prevailing share prices, largely consistent with our "Moderate Case" scenario where "Social" POEs will generate SOE-like profitability and the ERP for POEs will be sustained at above-mid-cycle levels.

How should investors be positioned?

Overall, given the significant near-term earnings cut (avg 2021 and 2022 consensus EPS has declined 28% ytd), valuation de-

rating (27% from mid-February), meaningful positioning and risk reduction across key investor cohorts (mutual funds, hedge funds and Southbound investors) in the offshore Tech sector, we see value in Chinese offshore equities on a 12-month basis (8% implied return to our index target). However, we believe forceful commitments/clear communications from senior policymakers, transparency about the nature and implementation of new regulations and/or significant corporate actions and adaptive responses (e.g. restructuring, divestment, buybacks) will be necessary to stabilize the market and crystalize this upside. As such, we prefer to invest in Chinese stocks through the mainland-listed A shares market, which appear to be more insulated from further regulatory tightening risk and are more favorably exposed to potential macro policy easing towards year-end than offshore China equities.

At a sector level, we favor industries that are less subject to regulatory scrutiny and are aligned with national development objectives (e.g. the 14th Five-Year Plan), notably foundational/"hard" technology (semiconductors and B2B software), green/renewable energy (solar, wind and gas) and "New Infrastructure" (electric vehicles and 5G networks), which collectively define our alpha-generating universe until the market reaches a new regulatory equilibrium.

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Offshore China equities have priced in a "moderate" regulatory tightening scenario of lower Social POE profitability and an elevated risk premium

Potential change in fair-value valuations for MSCI China under different ERP & ROE assumptions for POE in a DCF model

		Medium-term (Yr-3-8 average) ROE assumptions for POEs under a DCF Model					
		17.0%	Latest GS Model Assumptions: 16% medium-term ROE for POEs	Moderate Scenario 15% (Social POE's ROE will mostly normalize to SOE's levels)	Bearish Scenario 14% (ROE of private POEs will also decline to a mid-point between POE/SOE's levels)	Extreme Scenario 12.5% (Full Convergence to SOEs)	
Equity Risk Premium Scenario for MSCI China POE	Potential change in fair-value valuations under a DCF model	9.0%	-2%	-14%	-24%	-33%	-43%
	Current Comparable SOE IERP Level (POE sector neutral)	8.3%	14%	0%	-13%	-24%	-35%
	Current IERP Level (1.2 std above 5yr mean)	7.9%	25%	9%	-5%	-17%	-31%
	Mid-Point b/w Current vs. 5yr Avg IERP Levels	7.5%	38%	20%	3%	-10%	-25%
	GS Assumptions for POEs = Past 5yr avg IERP	7.1%	55%	34%	15%	-1%	-18%
2021 Trough (Mid-Feb)							

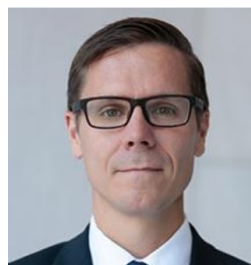
Optimistic Case Moderate Case Bear Case Extreme Case

Source: FactSet, Goldman Sachs GIR.

Interview with Jude Blanchette

Jude Blanchette holds the Freeman Chair in China Studies at the Center for Strategic and International Studies. Below, he argues that China's recent regulatory crackdown is a prelude to a period of greater political centralization and volatility ahead of next year's 20th National Party Congress.

The views stated herein are those of the interviewee and do not necessarily reflect those of Goldman Sachs.



Allison Nathan: Why have Chinese policymakers chosen to implement regulatory tightening now and with such urgency?

Jude Blanchette: The proximate reason is the political calendar. We've now officially entered 20th National Party Congress season in China. Late next fall, top delegates from the

Chinese Communist Party (CCP) will gather as they do every five years for the most important event of the Chinese political calendar—the meeting of the National Party Congress—where, among other things, the party makes changes to the upper echelons of its leadership. While these are always high-stakes events, next year's party congress is shaping up to be particularly momentous because President Xi Jinping will likely break with recent precedent and stay on for a third term as General Secretary of the CCP. The formal planning and preparation for any party congress usually starts about 12 to 14 months before the actual event, which is precisely where we are today, and will likely kick into high gear around the Sixth Plenum of the Central Committee in November. So, as President Xi looks to solidify his position at the apex of China's political system next year, he's trying to create momentum behind a publicly-oriented agenda—hence the flurry of regulatory actions.

Beyond political expedience, the core reason for the crackdown now was the sense that technological development had gotten too far ahead of the regulatory apparatus. The time lag between technological advancement and regulatory catch-up has always been structural in nature, so almost every country experiences a point at which various technologies outpace regulators' understanding of them. But the lack of regulation of the tech sector in China and the platform economy in particular, which had been perceived as somewhat of a "Wild West", ultimately posed an almost existential threat to the CCP. The massive amount of consumer data that Chinese platform companies have hoovered up during the pandemic convinced the government that these companies had too much data, and motivated them to finally fill the regulatory gap. That suggests a much more proactive regulatory approach going forward.

Allison Nathan: Do these actions mark a shift in how China's government is viewing the private sector?

Jude Blanchette: No, this is not a new trend by any stretch of the imagination. The CCP has long been reasserting its dominance over the private sector, especially since the start of Xi's second term in 2017. That's been reflected by the growth of party cells in private companies, the party's increased role in corporate governance, and the passage of the National Intelligence Law in 2017, which mandated that private sector companies participate in national security investigations. The recent regulatory measures may be an amplification of the existing trend, but this isn't a sudden lurch toward nationalization

or party control. Anyone who thinks that the party just suddenly discovered that the private sector has levels of autonomy that it's uncomfortable with hasn't been paying attention. That said, it would be wrong to say that the CCP is becoming more socialist and is fundamentally moving to squeeze out capitalism in China. As we saw with the recent announcement of a new stock exchange in Beijing, the party is trying to strike a balance between asserting oversight and control over market mechanisms while also ensuring that China is able to maintain sufficiently robust, albeit constrained, capital, technology, and talent markets. The CCP is not looking to move away from markets wholesale; it wants and needs markets. It is instead trying to ensure that markets are leveraged to drive the strategic outcomes that serve the CCP and China's national goals.

Allison Nathan: How does this all fit into Xi's longer-term political and strategic vision?

Jude Blanchette: As laid out in a series of high-level planning documents like the 14th Five-Year Plan and the 2035 goals for basically achieving socialist modernization, Xi's primary objectives over the next 10 to 15 years are to achieve self-sufficiency and market dominance in the industries and technologies critical to China's national security and sovereignty, and to ensure that there's enough capital directed to these industries to power China's continued rise and overcome secular economic challenges like the middle-income trap, demographic headwinds, and slowing productivity growth. My colleague and mentor Barry Naughton [calls this](#) new framework "grand steerage", by which he means a focus on steering capital, technology and talent toward sectors that are critically important to Xi Jinping. This approach is distinct from the command and control methods of the Soviet Union in the 1950s and 60s, but it's also a break from the looser regulatory approach that China has taken in recent decades. In effect, it represents a third way.

In practice, this means that some sectors, such as financial services, will continue to see liberalization, as the current strategy is focused on ensuring positive net inflows of capital and utilizing domestic capital markets to steer this capital toward high-priority sectors like semiconductors, AI, integrated circuits and robotics via mechanisms such as government guidance funds. Unlike these "hard tech" sectors, Xi Jinping sees consumer technology companies like Meituan and Didi as being of only marginal national strategic importance. Xi doesn't care whether people can have their meals delivered 14% faster or if it's 7% easier to hail a car. So, he's more than happy to see capital steered away from those sectors and towards areas that he views as providing the foundation for China's future.

Allison Nathan: Given that this strategy is laid out in government documents, should investors have seen the recent regulatory shifts coming?

Jude Blanchette: No. There now seems to be a belief that the CCP was clearly telegraphing everything it was going to do and

investors just had to read Xi's speeches to see it. But I find that fairly unpersuasive. While it's true that the CCP communicates forthcoming policies in many ways, past speeches would not have provided crucial pieces of information like the timing, magnitude and specific types of actions the government was going to take. It's clear that even China's regulatory bodies were a bit surprised by some of the orders that came down. And if it were so easy to predict Xi's next move, someone would be making a boatload of money shorting individual stocks, which doesn't seem to be the case. So, rather than looking for a crystal ball to predict Xi's next steps, investors should simply get comfortable with the idea that investing in China means investing amid greater volatility.

Allison Nathan: Investors seem to be particularly concerned about the sweeping nature of the Chinese government's actions. Why has it taken such a heavy-handed approach to implementing these regulations?

Jude Blanchette: That's the way the CCP rectifies problems. The campaign surge mentality has long been a structural feature of the CCP's typical regulatory response. Time and time again, we've seen a problem proliferate and build like a pressure cooker as vested interests block proactive regulation until the problem can no longer be ignored because it either generates sufficient public frustration to merit the government's attention or poses a threat to the entire system. At that point, the regulatory apparatus kicks into high gear with a massively disruptive campaign that shocks the system into engagement. This isn't anything new. It's just the size and velocity of the recent regulatory actions, as well as the targeting of sectors with significant levels of external investor involvement, that has caught everyone's attention this time around. But the form and function of these campaigns are pretty common in China's political system.

Allison Nathan: Some observers have argued that the government's biggest misstep has been in the communication of its policies, as was the case with the market volatility in 2015/16. Do you see similarities?

Jude Blanchette: The two episodes of market turbulence—in 2015/16 and today—rhyme, but the scale of uncertainty this time around is far more significant. 2016 was also a year before a major party congress—the 19th Party Congress—and Xi took the title of "core leader" at the Sixth Plenum that year, which was an important milestone in his consolidation of power. Leading up to those events, we saw a similar flurry of government action that rattled markets. But, we didn't have the same level of collective head-scratching as we do today. In contrast to 2015/16, there are two important new risk factors today. One, the Xi administration's tolerance for risk in terms of regulatory rectification has greatly increased. And, two, the possible knock-on effects of its decisions aren't being sufficiently recognized, either because the CCP believes these effects are manageable or because they have a limited understanding of them. I'm not sure which is the right interpretation. But the current environment makes for a much trickier backdrop.

The context of the 20th Party Congress next year is also hugely consequential. Xi is either going to stay on for a third term as

General Secretary, breaking from four decades of thinking within the CCP about the need to eschew centralized power to avoid the catastrophes of the Mao era, or he won't stay on for a third term, which would be equally as momentous because, one year out, we have no idea who his successor could be. Whatever happens suggests more volatility for the Chinese political system ahead. In the event that Xi stays on, he will be the virtually uncontested leader of the world's second largest economy with an increasingly unpredictable economic and regulatory apparatus and a highly autocratic political system, which is something we've never seen in China, or anywhere, for that matter, before, and that's a recipe for significant and prolonged uncertainty.

Allison Nathan: Will the regulatory crackdown strengthen Xi and the CCP, or could the further centralization of power backfire?

Jude Blanchette: There's a danger of too much centralization. Xi Jinping is increasingly calling the shots in China in relative isolation, especially compared to the level of collective decision-making in China a decade or so ago. That's not good for China's development because it increases the likelihood of political instability and erratic policymaking, as evidenced by the latest crackdown. Despite China's undeniable bureaucratic talent, regulatory decisions have become far more political in nature. Regulators are responding to political imperatives rather than engaging in robust group decision-making. In this environment, it's likely that further surge campaigns involving uncoordinated, sudden, and shock decision-making are going to be a regular feature of the Chinese system, especially after the 20th Party Congress. The fact that Chinese growth and capital inflows remain strong signals to the Xi administration that it can take these actions without paying a significant price. But that's not necessarily always going to be the case. Politically-driven policymaking will force investors that have sidelined politics in the past to stay more attuned to flash political decisions by Xi Jinping in coming years, which will only worsen as his control over the political apparatus strengthens.

So I'm much more cautious about China after these regulatory developments, which have given us a good sense of what regulation with Xi Jinping characteristics looks like: sudden, unpredictable and tending towards wild swings. China's political evolution under Xi Jinping is creating worrisome dynamics in other areas as well, like national security, that will have longer-term strategic and economic implications. There's a reason almost all of China's previous leaders after Mao Zedong warned about the challenges and pathologies of centralized decision-making and its impact on governance. And we're seeing that now. We can hope for some sort of benign, enlightened despotism under Xi Jinping, but that would be a very ahistorical reading of the trend lines. This is something that should worry investors, especially as Xi Jinping looks to take on a third term that will represent a fundamental break from the broadly positive political trajectory China had been on for quite some time in terms of normalizing its political system and its succession process. The recent developments are just a small taste of what China is going to look like moving forward.

CGBs in a global portfolio context

Kamakshya Trivedi and Danny Suwanapruti argue that recent events in China reaffirm the increasingly important diversification role of Chinese Government Bonds in global portfolios

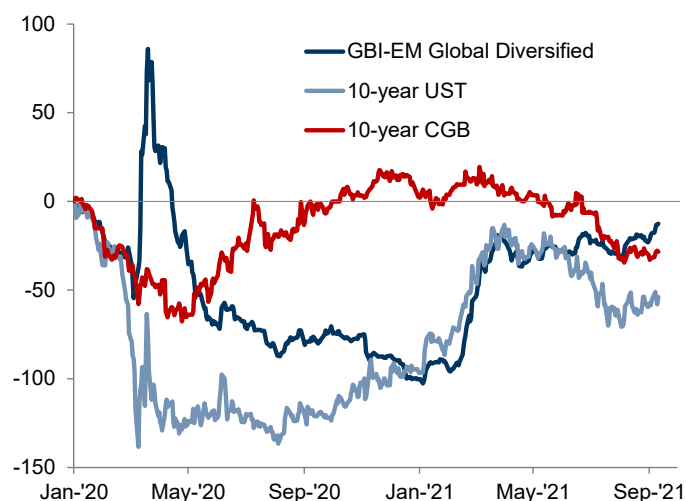
Recent regulatory actions and growth concerns in China have dulled some of the luster of Chinese assets as of late. But these events have also reaffirmed the important role that one Chinese asset—Chinese Government Bonds (CGBs)—are increasingly playing in global bond portfolios, given their lack of correlation with other fixed income instruments.

Global portfolio diversifiers, responsive to local pressures

Global bond portfolios have been increasing their allocation to CGBs for several years, given both their comparatively high yield and their inclusion in global fixed income benchmarks. But another important characteristic that makes CGBs attractive is the diversification that they provide. We have found that CGBs are among the assets least correlated with the common factors that drive interest rates in G10 and other EM markets, and their behavior over the past year has borne that out. CGBs did not participate in the sharp bond market sell-off and increase in yields that occurred in 1Q21, and their movement was also significantly more muted during the violent gyrations in core rates (lower) and EM local rates (higher) at the worst point in the pandemic in spring 2020.

CGB yields have been mostly insulated from the sharp gyrations in EM and core yields

Yield change since end-2019, bp



Source: Bloomberg, Haver Analytics, Goldman Sachs GIR.

But even as they remained insulated from the correlated moves in global and EM bond yields, CGB yields have reliably responded to shifts in domestic macroeconomic conditions. Yields moved up sharply and consistently throughout the middle of last year as the Chinese economy recovered and GDP rose above pre-pandemic levels, and over the past few months have moved lower in lockstep with the growth downgrade captured by our China growth factor. With our economists expecting sequential growth to recover in 4Q21 as concerns around the Delta variant in China fade, the current level of yields may not provide a compelling entry point for a short-term trade. But for a medium-term investment, the recent experience reaffirms that CGBs

offer not only attractive yield but also attractive diversification—shielded from global rate volatility but responsive to domestic macro impulses.

CGB yields have moved lower in lockstep with our China growth factor

Index (lhs), % (rhs)



Source: Haver Analytics, Goldman Sachs GIR.

Structural inflows to support CGBs

Strong fixed income inflows into China in July is a testament to the long-term diversification case for increasing allocation to CGBs in global portfolios and of the resilience of foreign demand even amid an uncertain global macro outlook.

We also see two major sources of structural inflows that will help support CGBs over the next several years. The first is China's inclusion into the major global bond indices (an estimated increase of USD 250bn in flows), with FTSE WGBI to phase in China's inclusion over three years beginning in October. And the second is an expected significant structural shift in global central bank reserve allocations towards CNY assets over the next decade. Historically, we find that the key traditional drivers of reserve compositions include: 1) currency of intervention, 2) currency of trade settlement, 3) currency of external debt, 4) capital market depth and 5) size of international trade. However, over the past decade, returns have become an important factor driving reserve allocation. A survey from the [World Bank](#) shows that 80% of the central banks surveyed pay dividends/royalties to their governments, underlining the importance of returns. And we've found that investors who invested in a portfolio of CNY governments bonds over the past five years would have outperformed the returns on all four traditional reserve currencies (USD, Euro, Yen, Pound Sterling). We estimate that global central banks can increase their CNY holdings from 2.4% currently to roughly 5-6% (an estimated increase of USD 400bn in flows), meaning that CNY could become the third largest reserve currency in the world by 2030.

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China regulations: broader asset impact

How has China's recent regulatory crackdown impacted your asset class?

Chinese corporate credit

Kenneth Ho & Team

- In corporate credit, the effects of recent regulation have been largely contained within the property sector. The implementation of the government's "Three Red Lines" regulation, which requires large property developers' financial ratios to be assessed before they can take on more debt, has been an important benchmark for China property HY issuers. The ICE-BAML Asia Dollar China HY index has generated a total return of -8.6% so far this year, with the majority of the underperformance coming from lower-rated property developers. Indeed, the China Property B index has generated a year-to-date total return of -16.6%.
- However, the impact on broader mainland China credit markets has been relatively limited. The ICE BAML Asia Dollar China IG index has actually seen spreads tighten by 26bps since the start of the year.
- In our view, the market pricing of recent regulatory tightening mostly reflects a reassessment of tail risk, with China HY prices reflecting heightened risk of default for lower-rated developers, and suggests limited risk of spillover across sectors and issuers.
- We maintain preference for Asia HY over Asia IG. Within Asia HY, we prefer a diversified approach with broad exposure across segments. And, in China Property HY, we recommend adding some higher yielding B-rated names while maintaining BB names as core holdings.

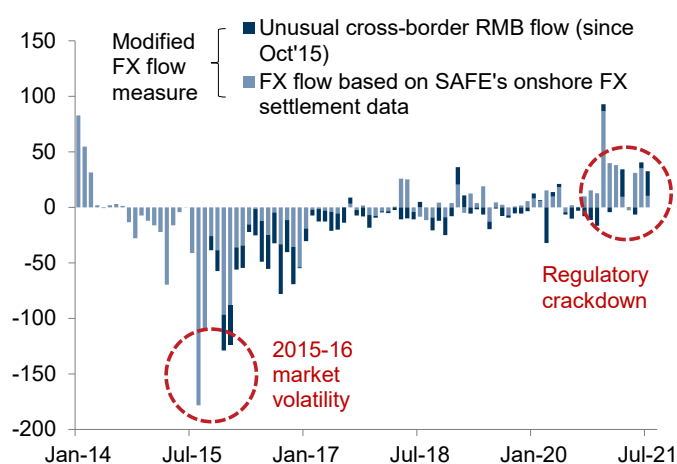
Chinese RMB

Hui Shan, Maggie Wei & Team

- In the near term, policy uncertainty and investors' concerns about the outlook for the Chinese economy might prompt capital outflows, potentially dampening market sentiment towards the RMB and generating depreciation pressures. While net inflows continued in July, FX inflows related to the goods trade surplus declined substantially from June, reflecting a greater reluctance of importers/exporters to convert foreign currency into RMB.
- At the same time, while less optimistic sentiment has led foreign investors to trim their holdings of mainland China equities, a reduction in investment from mainland China investors could actually imply near-term RMB inflows because many mainland Chinese education and technology companies are listed offshore in Hong Kong or overseas in the US. And, indeed, the portfolio investment channel showed higher net inflows in July, driven by net southbound equity selling (i.e. sales of HK equities by mainland Chinese investors).
- On net, China has probably accumulated more than sufficient buffers against potential capital outflows since the COVID-19 outbreak in 1H2020 to limit pressure on the RMB. In fact, in contrast to the sharp depreciation during the 2015/16 turbulence in Chinese markets, the RMB has experienced a sizable appreciation against the USD since mid-2020, reflecting China's early production recovery from the COVID-19 shock, which has contributed to a large goods trade surplus, an early normalization of monetary policy, and a favorable interest rate spread between China and the rest of the world.
- That said, Chinese policymakers have leaned against the rapid currency appreciation this year (by raising the reserve requirement for FX deposits, liberalizing outflows and employing verbal guidance) to avoid a further headwind to exports that are already weakening as global goods demand softens and production rises elsewhere. We expect the RMB to remain somewhat rangebound in the near term in response to these various pressures.
- Over the medium to long run, despite near-term regulatory uncertainty and growth concerns, we expect a stronger RMB against the USD, and forecast USD/CNY at 6.15 on a 12m horizon. China still remains underweight in foreign investor portfolios, which we think should help drive further investment in RMB/Chinese assets over time. Specifically, we see more momentum behind foreign investors allocating to RMB bonds given China's ongoing inclusion in the major global bond indices.

FX inflows into China have remained resilient...

Modified FX flow measure, \$bn



Source: SAFE, Goldman Sachs GIR.

...and the CNY has appreciated strongly since mid-2020

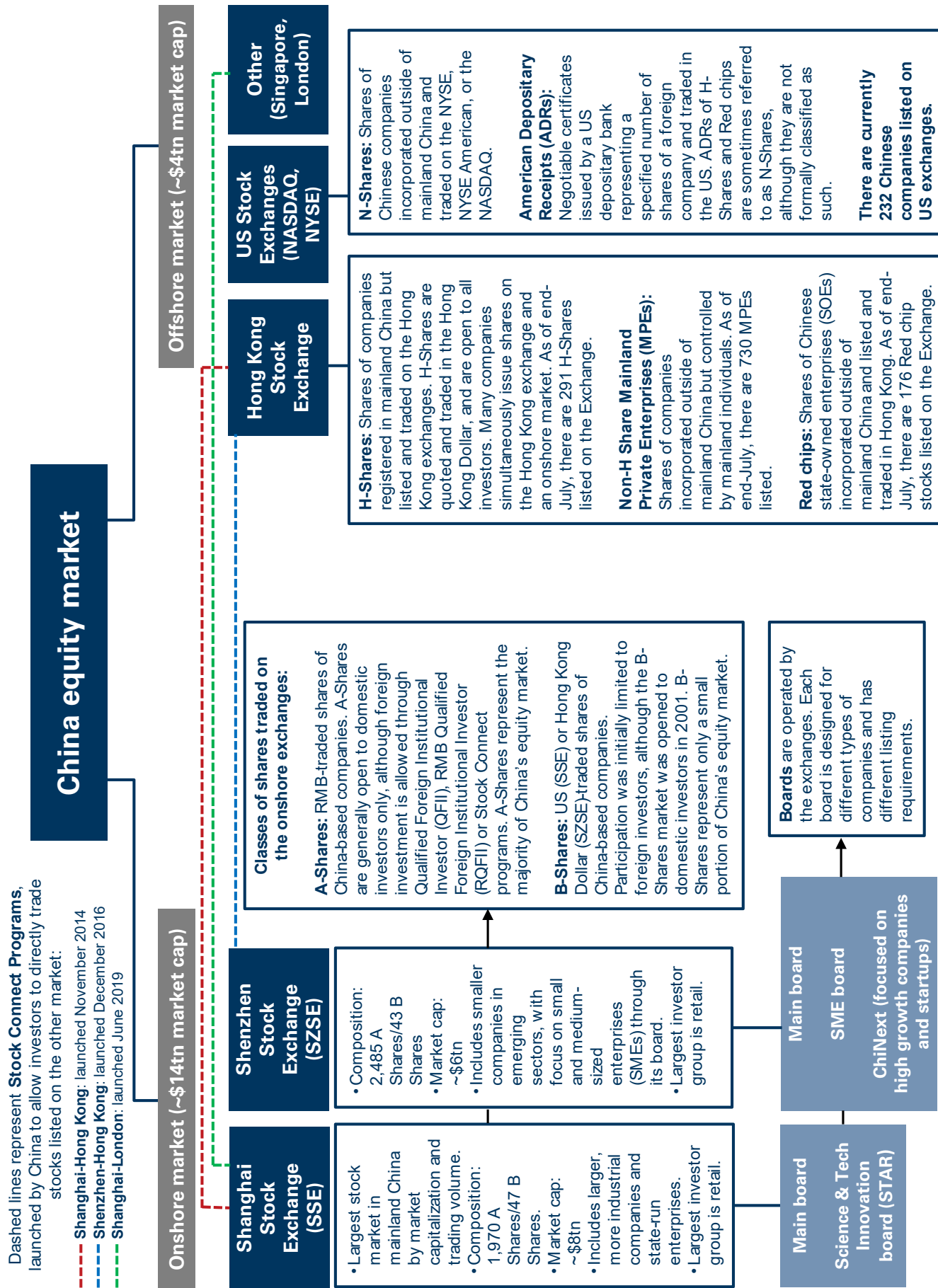
CNY vs CFETS basket*, Index; CNY/USD (rhs, reverse scale)



*Using expanded CFETS basket starting from 2017

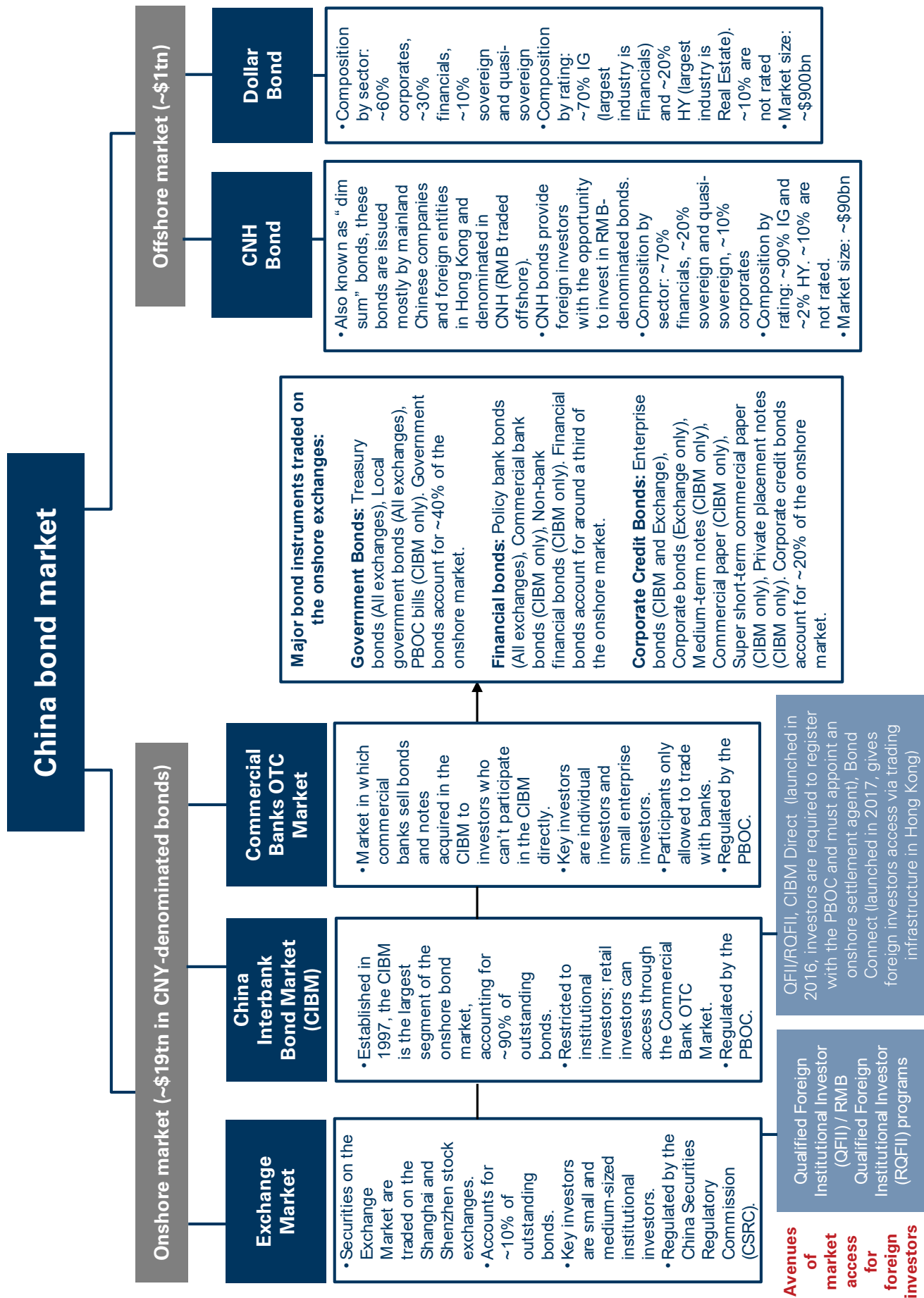
Source: Bloomberg, CFETS, Goldman Sachs GIR.

A look at China's equity market...



Note: Not intended to provide an exhaustive overview of all structures within the Chinese equity market; figures are as of August 31, 2021 unless otherwise noted. Source: SEC, USCC, FTSE Russell, Nasdaq, Bloomberg, Hong Kong Stock Exchange, various news sources and academic papers

...and China's bond market



Note: Not intended to provide an exhaustive overview of all structures within the Chinese bond market; figures are as of August 2021. Source: Asian Development Bank, Bloomberg, S&P, various news sources and academic papers, Goldman Sachs GIR.

EM ex-China: marching to its own beat

Caesar Maasry argues that EMs should remain relatively insulated from the recent volatility in Chinese equity markets

The substantial volatility in Chinese equities (~24pp realized annual volatility year-to-date compared with 15pp for EM ex-China) has raised a number of questions regarding the EM outlook for the remainder of the year. However, in contrast to past periods of volatility in Chinese markets, EM assets have remained remarkably resilient during the recent Chinese equity bear market: the HSCEI index remains 24% below its February peak, but other major EMs such as Brazil, Mexico, India, Russia, and South Africa have risen 8% on average in USD terms over the same period. We believe that strong EM earnings growth and a continued rebound in EM economies should keep EM assets relatively insulated from volatility in Chinese markets this time around.

Atypical EM resilience

This episode marks the first time in recent history that EM equities have rallied during a significant Chinese equity correction. EM currencies have also been resilient, appreciating 0.3% on average against the USD, compared with an historical 9% average decline during past China equity selloffs. This is not to say that EM will be completely spared from China growth concerns, but rather that the recent volatility has largely been concentrated in Chinese domestic-oriented sectors, as exemplified by the fact that Chinese asset underperformance has largely remained isolated in the equity market with FX keeping pace with EM peers. This divergence is highly unusual within the context of the post-Global Financial Crisis period.

Chinese equities have diverged from FX significantly

Relative Performance (100 = Dec 2013)



Source: FactSet, Bloomberg, Goldman Sachs GIR.

EM corporate profits have also remained exceptionally resilient, continuing their V-shaped recovery despite the turbulence in Chinese equities. Over the past six months, EM ex-North Asia EPS has risen 28% (in USD terms), whereas MSCI China EPS has been flat (+1.4%). This 26pp EPS outperformance over a six-month period is the largest on record for EM ex-North Asia, underscoring the fact that China's regulatory shifts are primarily impacting domestic sectors and do not carry direct growth implications for the broader EM recovery.

We note that EPS growth in Korea and Taiwan has also been solid over the past six months (both up >25% in USD terms),

largely driven by a DM and semiconductor recovery, and overall index EPS is already 58% above pre-COVID levels on average. Across EM ex-North Asia, EPS is 12% above pre-COVID levels, but this has largely been driven by commodity exposure: domestic demand sectors have further room to reflate (EPS is 7% below pre-COVID levels for these sectors on average).

Recent headlines and data that suggest fiscal support in China may be eased going forward, even if in a somewhat back-end loaded manner, also bode well for the EM ex-North Asia outlook. We remain confident that a domestic demand recovery across EM will be the primary driver of further EPS and market outperformance. But incremental support from policymakers in mainland China would allay persistent China growth concerns, and help prevent potential further volatility in Chinese markets from spilling over into the rest of EM.

Ex-North Asia EMs' EPS continues a "V-shaped" recovery

Forward EPS indexed to 100 (Jan 2010), \$/share



Source: FactSet, I/B/E/S, Goldman Sachs GIR.

EM ex-China "independence"

Separately, while some investors contend that volatility in Chinese equities can push money flow into other EMs, this isn't the primary driver of our constructive view on EM ex-North Asia. Our previous research argues against this idea given flows into EM risk assets are typically quite correlated, reflecting common fundamentals (e.g., global growth shocks). 2015 offers one historical exception, when significant outflows from aggregate EM mandates (-\$23bn), which offer a broad proxy for mainland China demand, diverged from strong inflows into EM ex-North Asia (+\$16bn). Although the current environment in which most EMs are largely insulated from China's regulatory shifts could plausibly lead to another break in the historical relationship, the short-term correlation structure between China and EM ex-North Asia flows appears intact so far. For example, during the period of significant Chinese equity volatility between June and mid-August, foreigners also sold \$5.7bn of EM ex-North Asia equity holdings. As Chinese equities have recovered over the past four weeks, foreigners have purchased EM ex-North Asia equities to the tune of \$2.2bn. In short, our positive view on EM ex-China is predicated on domestic growth improvement across EM economies rather than developments in China. This is a key reason we favor EM equity implementation "beneath the surface" of MSCI EM, of which China represents 35%, particularly domestic-facing equities in Mexico, Russia, India, South Africa, and Brazil.

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Key events to watch

Category	Government Authority	Catalyst	Fact and Reference	Expected timeline
Data Security	CAC	Cybersecurity review for Didi, Yunmanman, Huochebang and BOSS hiring	CAC initiated the cybersecurity inspection on July 2 for Didi and July 4 for Yunmanman, Huochebang and BOSS Hiring; Standard Review to take up 45-60 business days and Special Review to take an additional three months according to the <i>Measures for Cybersecurity Review</i> .	Standard: Sept 2021 Special: Dec 2021
Antitrust	SAMR	Meituan antitrust investigation	SAMR announced an anti-monopoly investigation for Meituan on April 26; Alibaba's "choose 1 from 2" probe completed within 107 days (Dec 24, 2020 - Apr 10, 2021); based on major anti-monopoly cases since 2009 compiled by GS, it took 11 months on average to complete the investigation.	Late 3Q/early 4Q21
Financial Market	MoF	PPP legislation (SOE reform)	Ministry of Finance made a comment on August 23 in response to suggestions from 2021 NPC that it will cooperate with Ministry of Justice to roll out legislation on Public-Private Partnerships (PPP) shortly as part of the SOE reform.	-
Financial Market/ Data Security	CSRC/CAC	Resumption of offshore IPOs for Chinese companies in Internet sector	Number of completed Chinese IPO transactions in US/HK dropped 90% in July/Aug vs monthly average in 1H21; dropped 85% in terms of total capital raised; offshore China tech IPOs remain subdued as CAC's proposal that cybersecurity review shall be conducted for companies holding personal information of >1mn users prior to foreign listing pends case application.	-
Financial Market	CSRC/SEC	CSRC clarification and US-CN cooperation of overseas listing process for Chinese VIE companies	CSRC is reportedly (Bloomberg, July 4) working to change the overseas listing rules implemented in 1994 that now require VIE structures to seek approval before overseas IPOs; collaboration between US-CN regulators needed as SEC announced in an official statement to seek for certain risk disclosures from Chinese issuers (July 30) and effectively stopped processing Chinese IPOs through offshore shell companies (August 16).	-
Financial Market	CSRC/SEC	US-CN cooperation on audit inspections for Chinese companies listed in the US	The US SEC formally kicked off the rule implementation process of the HFCAA (March 24); The Senate shortened the delisting timeline to two years (June 22); CSRC remarked that US and Chinese regulators should enhance communication over supervision of Chinese ADRs (August 1) and vowed to create conditions for audit cooperation with the US (August 20).	-
Society	Party Council/State Council	Key macro policy meetings	Politburo Meeting (October): policymakers to review economic performance and discuss policy outlook; The Sixth Plenum of the 19th Party Congress (November): topics are likely to include improving supervision of the CCP and culture building; Politburo Meeting (December) and Central Economic Work Conference (December): to set policy targets for 2022 similar to how the previous Conference outlined eight Key Missions for 2021 including "strengthening antitrust measures and preventing the disorderly expansion of capital".	4Q21
Society	Party Council	Forceful and transparent communications from senior policy makers ahead of the CCP's 20th National Party Congress in fall 2022	In the 2018 episode, it's widely believed that the meeting hosted by President Xi Jinping with select entrepreneurs in November 2018 removed the regulation overhangs; President Xi chaired the 10th meeting for the Central Government Financials and Economics Committee emphasizing the importance of "wealth re-distribution for common prosperity" (Aug 17).	-

Special thanks to the GS Asia-Pacific Strategy team for this table.

China tech in the new regulatory normal

Piyush Mubayi discusses the current regulatory landscape in China and the implications for Chinese internet companies

Increased regulations targeting the internet sector has been a global trend over the past few years, and we see China's recent regulatory actions as catching up with Europe and the US in this regard. Indeed, after a series of actions beginning late last year signaled increased scrutiny of the sector, in recent months the regulatory framework has expanded to **1) align the internet sector/companies with China's long-term development strategy; 2) promote orderly competition; and 3) protect consumer interests, and the interests of minors.** We expect regulations to remain a key market focus at least through year end. But we believe that regulations will ultimately create a more favorable environment for the industry's long-term sustainable growth and increase its global competitiveness.

Alignment with China's longer-term development strategy

The government has taken a series of actions to further align the tech sector with its longer-term development strategy that focuses on growth, "common prosperity" and national security:

- **Growth:** Accelerating the development of "digital economy, digital society and digital government" is among the key pillars of China's FYP. Reflecting this focus, the digital economy's share of GDP, [currently estimated at ~36%](#) (vs ~60% for the US), has been added to the FYP as a new indicator in the innovation category. China aims to foster key industries in the digital economy, including cloud computing, big data, IoT, industrial internet, blockchain, AI, VR/AR, and promote the use of digital technologies in manufacturing, transportation, etc.
- **Common prosperity** related regulations are not meant to target private-owned enterprises (POEs) in general or stifle innovation; common prosperity is as much about "prosperity" (pro-growth) as it is about "common" (re-distribution).
- **National security:** In the midst of the continuous digitalization efforts, a series of laws and regulations have been published to protect national security, including the [Data Security Law](#), [Critical Information Infrastructure \(CII\) Security Protection Regulations](#) (both went into effect September 1) and [Measures for Cybersecurity Review](#) (currently a draft for public consultation).

We see several implications of these shifts related to sector growth, taxes, labor costs, donations and foreign listings:

1. **Growth:** We continue to believe that China's internet sector provides attractive growth opportunities for investors, with aggregate 26%/20% 2020-22E revenue/NP CAGRs (22%/39% 2021-23E revenue/NP CAGRs).
2. **Tax:** Many internet variable interest entities (VIEs)/subsidiaries enjoy a 15% corporate tax rate under the High and New Technology Enterprise (HNTE) program, while certain entities that qualify as key software enterprises (KSEs) are entitled to a five-year corporate tax exemption beginning in their first profit-making year, and a 10% corporate tax rate for the following year. As KSE qualification is subject to an annual assessment and a number of our covered companies have disclosed the disqualification of certain VIEs/subsidiaries, we have reflected

a higher effective tax rate in our forecasts (e.g. 17.7% in FY22E for BABA vs. 13.6% in FY21).

3. **Labor costs:** We expect some companies could incur higher labor costs as they assume increased responsibilities in primary income distribution in terms of increasing labor benefits and improving labor rights protection (e.g. social insurance for flexible workers, more favorable commission split to workers in the [ride hailing industry](#), the cancellation of "996" working hour policy or compulsory overtime, and government-led platform algorithms such as the Zhejiang Food Delivery Online system).
4. **Investments/donations:** Over the past few months, a number of companies have announced their plans to support "common prosperity" and sustainable development, including Xiaomi's Chairman's 616mn share donation (equivalent to ~Rmb14.4bn), Tencent's Rmb100bn investments, Pinduoduo's Rmb10bn agriculture initiative, and most recently, Alibaba's Rmb100bn investments by 2025.
5. **Enhanced regulatory framework for foreign listings:** Companies that possess the personal information of >1mn users shall report to the Cyberspace Administration (CAC) for a cybersecurity review and submit IPO materials during the foreign listing process and foreign listing behavior that is considered to affect or potentially affect national security shall be reviewed by the Cybersecurity Review Committee. Companies in the process of a foreign listing (including in the US) may be subject to additional data security requirements.

Promoting orderly competition

The government has also taken actions to promote orderly competition, e.g. antitrust and anti-unfair competition actions:

- **Antitrust:** The State Administration for Market Regulation (SAMR) has included internet companies listed overseas under the VIE structure in the regulatory oversight as part of the draft [Guidelines for Anti-Monopoly Rules in the Platform Economy Field](#) (November 2020), and the final [Guidelines](#) (February 2021). In our view, this set of laws and regulations (including the draft amended [Anti-Monopoly Law](#) in January 2020) has similar objectives to the [US anti-trust laws](#) dating back to the Sherman Act passed in 1890 that, according to the US Federal Trade Commission, were established "to protect the process of competition for the benefit of consumers, making sure there are strong incentives for businesses to operate efficiently, keep prices down and keep quality up."
- **Anti-unfair competition:** The SAMR issued a draft of the [Provisions on Prohibited Acts of Unfair Online Competition](#) in August 2021, which follow similar requirements to those of the [Anti-Unfair Competition Law](#), with more specific requirements on the internet sector in that they i) ban technology-enabled disruption of competitors' business, including traffic hijacking, operational interference, malicious incompatibility, etc.; and ii) ban other internet-specific behaviors, e.g. intercepting/blocking information, "2 choose 1", the use of data crawlers to replace competitors, price discrimination enabled by big data, etc. This followed the July draft of the [Provisions on the Administrative Punishment of Price-related Violation](#), which ban below-cost pricing done to squeeze out competitors, price discrimination against other operators, price coalitions, etc.

We see several implications of these shifts for the sector, e.g. better connectivity and cooperation, higher scrutiny on acquisitions and investments and penalties for misbehavior:

1. Potential for better connectivity and industry cooperation:

We believe the anti-unfair competition regulation is increasing the incentives for China internet companies to remove certain incompatibilities with each other, which should be positive for key platform stakeholders as a whole.

2. Higher regulatory scrutiny on acquisitions/investments:

The SAMR has been examining investment deals from the perspective of “concentration of undertakings”—meaning that companies with a higher propensity to acquire domestic assets may be more likely to fall under antitrust review—and market competition (e.g. SAMR has approved Tencent’s acquisition of Sogou but blocked the Huya-Douyu merger).

3. Severe penalties for market misbehavior: While the SAMR is not requiring past acquisitions/investments to be unwound, recent regulations impose severe penalties for market misbehavior e.g. up to 10% of sales in the prior year on companies that make and exercise monopoly agreements and 1-10% of sales on those with certain price-related violations.

Protecting the interests of consumers, especially minors

Lastly, the government has acted to protect consumers, especially minors, via personal data protections, restrictions on the use of algorithms and entertainment industry regulations.

• **Personal information (PI) protection:** China’s [Personal Information Protection Law](#) (PIPL) was passed on August 20 and will come into effect on November 1, and follows the passage of the General Data Protection Regulation (GDPR) in Europe in 2016, the California Consumer Privacy Act (CCPA) in 2018 and the California Privacy Rights Act (CPRA) in 2020. The PIPL requires i) PI processors to obtain separate consent from users when providing PI to other PI processors; ii) PI processors to provide PI transfer channels for users who request PI transfer (“right to data portability”); iii) important PI processors to assume obligations including setting up a compliance system to protect PI, regularly publishing PI protection social responsibility reports, etc. (“gatekeeping obligations”). Over the past few months, the Ministry of Industry and Information Technology (MIIT) has reported a number of apps with features that infringe on user privacy or harass users, including splash screens and pop-up ads.

• **Algorithm regulations:** On August 27, the CAC released the draft [Regulations on Algorithm-based Recommendations for Internet Information Services](#). Key requirements from the draft regulations and PIPL include:

- **Right to opt-out of internet services enabled by algorithms:** algorithm-based recommendation service providers should provide users with options to turn off algorithm-based recommendations.
- **Ban on price discrimination enabled by algorithms** based on consumers’ preferences, transaction habits, etc.
- **Ban on algorithms that violate public order and morality,** e.g. those inducing addiction or high spending; algorithm-based recommendation service providers should enhance the mechanism of manual intervention and user independent selection, and proactively display information in line with mainstream value orientation.

- **Ban** on fake/illegal account registration, account manipulation, fake comments/reposts/traffic enabled by algorithms, or leveraging algorithms to manipulate information displays/recommendations/search rankings, or control hot searches/topics, in order to achieve unfair competition, affect public opinions or evade regulations.
- **Entertainment industry regulations,** which include i) [the draft regulation on live streaming platforms](#) (July 2021) including multi-channel network (MCN) qualifications and tipping behavior regulations; ii) [a crackdown on fandom](#) including a ban on celebrity rankings, reality talent shows, etc. (August/September 2021); iii) the launch of [comprehensive rectification in the entertainment field](#) by the Chinese Communist Party’s Central Propaganda Department (September 2021); iv) [regulatory talks last week](#) to online game and live streaming companies regarding game content, in-game purchase addiction, and high-ticket tipping.
- **Protection of minors,** which includes the above-mentioned entertainment industry regulations, as well as i) a [ban on after-school tutoring during weekends and public holidays](#) (July 2021), ii) [restrictions on online game playing to public holidays and 8-9pm on Fri-Sun](#) (August 2021).

We see several implications of these shifts pertaining to online advertising, social media/entertainment and gaming:

1. **Online advertisements:** Companies are still studying the regulations to ensure better compliance. In terms of **PI protection**, e-commerce/social commerce companies such as Alibaba, JD.com and Douyin have recently upgraded their systems to replace sensitive PI with encrypted/de-identified information when they provide user information to merchants and other third parties. This will likely lead to higher dependence on the platforms’ marketing tools for certain merchants that don’t have subscribed brand membership customer relationship management (CRM) services. Regarding the **regulations on splash screen/pop-up ads**, we expect the reduced click-through rates should lead certain performance advertisers to scale back their ad budgets, yet brand advertising should largely remain unaffected. And on **algorithm regulations**, while we believe it’s too early to determine the impact on ad efficiency, study by the [US National Bureau of Economics Research](#) has found that the opt-out capabilities mandated by GDPR reduced the total number of website cookies by ~13%, while the consumers who do not opt out are more persistently trackable.
2. **Social media and entertainment:** We expect potential near-term headwinds to user activity and revenue in the case of delayed content releases, restrictions on how much users can consume (e.g. limit on the number of digital album purchases per user), or what content users can engage with.
3. **Games:** We expect limited direct revenue impact from the game time restrictions on minors. Players under 18 accounted for only 6% of Tencent’s China gross game receipts in 4Q20 (we assume that Tencent forgoes the entire c.6% of gross game receipts from players under 18), and less than 1% for other listed online game companies (e.g. NetEase, Bilibili).

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Q&A on VIE structures



Kenneth Ho, GS Chief Asia Credit Strategist, answers key questions on the structure of Variable Interest Entities (VIEs)

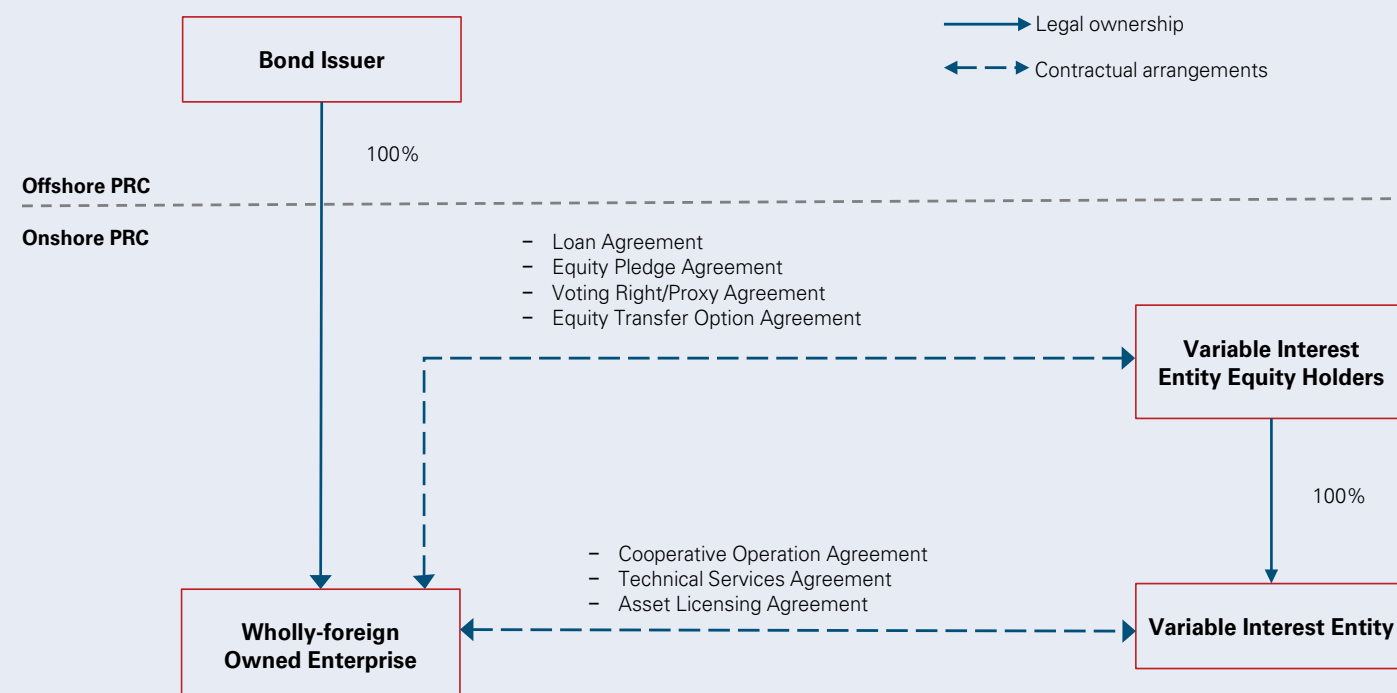
Q: How did VIE structures originate?

A: VIEs came into focus in the aftermath of the Enron collapse. Prior to Enron Corporation's bankruptcy filing in late 2001, the company utilized numerous special purpose entities (SPEs) as vehicles for off-balance sheet investing. Enron had a controlling financial interest in the SPEs with minimal equity ownership, and under the accounting rules at the time, the SPEs were not required to be consolidated. This meant that the off-balance sheet liabilities were not reflected in Enron's consolidated financial accounts. The accounting treatment of SPEs was changed following new [guidance](#) from the Financial Accounting and Standards Board in 2003. Under the new guidance, if an entity is deemed to be the primary beneficiary in a VIE, it is deemed to have a controlling financial interest in the VIE. This requires the VIE to be consolidated onto an entity's financial accounts, regardless of whether or not it holds a majority voting interest. Although the term "VIE Structure" began to be used in 2003, the use of contractual agreements to facilitate the offshore listing of Chinese companies actually pre-dates that. Chinese companies [were using](#) structures similar to the currently used VIE structures to list on foreign stock exchanges as early as 2000.

Q: How are VIEs structured regarding China offshore corporates?

A: Chinese companies in certain industries utilize VIE structures for offshore listings. In certain industries in China, foreign ownership and investments are restricted. The country maintains a Market Access Negative List for foreign investment; foreign investments in industries included on the negative list are restricted or prohibited as stipulated in the regulations, and industries not on the list are open to investments from all market participants. Industries on the negative list include information technology services, compulsory education institutions, and media organizations, amongst others. But the negative list has shortened in recent years. The number of items on the list was [reported](#) to be 151 in 2018, shortened to 131 in 2019 and [currently](#) stands at 123. And policymakers are aiming to further [shorten](#) the list this year. For sectors where foreign investments are still restricted or prohibited, VIE structures are utilized to provide foreign equity investors the economic benefits of the VIEs (i.e., the onshore operating entities) without owning any equity interests in the VIEs themselves. This is achieved via the use of an offshore entity and a series of contractual agreements that provides the offshore equity investors effective control of the VIEs, and receipt of substantially all of the VIEs' economic benefits. This allows the offshore entity to consolidate the financial results of the VIEs in their financial reports.

Typical structure for China USD bond issuers with VIEs



Source: Company bond prospectuses, compiled by Goldman Sachs GIR.

Q: What are the current regulations on VIEs in China?

A: Chinese policymakers have been more active in regulating VIEs in recent months. [Anti-monopoly guidelines for the platform economy](#) were published by the State Administration for Market Regulation (SAMR) in February 2021. They mentioned VIEs, meaning that VIEs are now covered by this new anti-monopoly regulation. On July 24, the Chinese government also introduced [new rules](#) that require mandatory conversion of firms that provide K-12 after-school tutoring of core school subjects into non-profit institutions. Furthermore, the new rules stipulated that foreign capital is no longer allowed to control or hold shares in after-school tutoring institutions, including via VIEs. We see the recent regulatory decisions as taken with longer term aims in mind. As noted by our China Technology team, China's expansion of its comprehensive regulatory approach to managing the country's internet platforms/digitized economy is intended to create a favorable environment for the industry's longer-term sustainable development. From a broader macro perspective, our China economics team views the underlying goals of the restrictions on after-school tutoring as appearing to be (1) slowing the country's decline in birth rates and (2) reducing social inequality. Cracking down on anti-competitive behavior, enforcing market order, and strengthening consumer protection are another set of motivations behind the recent regulations.

Q: What constitutes a triggering event under the bond indentures?

A: We looked into the offering circulars for a number of China USD bonds issued by companies using VIE structures, and they include a clause whereby the issuers are required to make an offer to repurchase the USD notes at 101% of the aggregate principal amount upon a triggering event. According to the offering circulars, a triggering event means:

- 1) Any changes to laws and regulations ("Change in Law") that result in the company being prohibited from operating, and deriving the economic benefits, from substantially all of the business operations conducted by the company as of the period described in its most recent financial statements, and
- 2) The company has not furnished to the Trustee, prior to the date that is 12 months after the date of the Change in Law, an opinion from an independent financial advisor or an independent legal counsel stating either that (a) the company is able to continue to derive substantially all of the economic benefits from the business operations conducted prior to the Change in Law, or (b) such Change in Law would not materially adversely affect the ability to make principal and interest payments on the notes when due.

However, we have not studied the offering circulars for all China USD bonds issued by companies under VIE structures, and there may be variability in the terms and conditions between different bond issues.

Q: What is the outstanding amount of China USD bonds of issuers that utilize VIE structures?

A: While we don't have a definitive list of China USD bonds from issuers that utilize VIE structures, we can approximate based on the amount of China USD bonds issues by companies in the TMT and education sectors, as these are the sectors that typically utilize VIE structures. We find that there are \$63.8bn of China offshore bonds in these two sectors, representing nearly 9% of all outstanding China offshore bonds.

Summary of our key forecasts

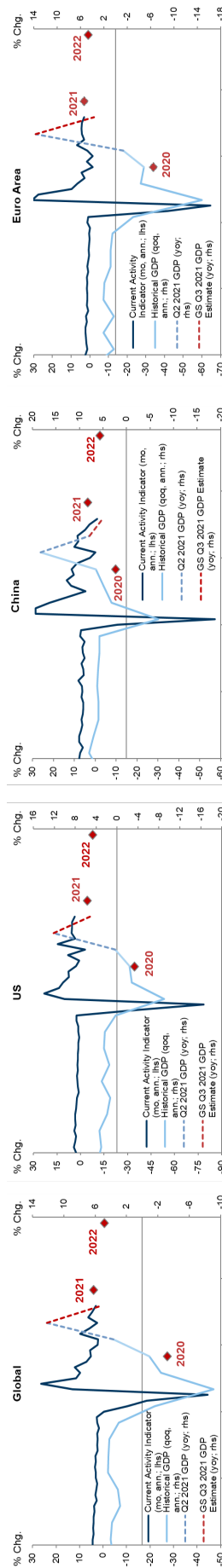
GS GIR: Macro at a glance

Watching

- **Globally**, we expect full-year growth of 6.2% in 2021 and remain selectively bullish in economies with significant continued room for reopening. But we expect growth to slow next year on the back of diminishing impulses from reopening and fiscal stimulus.
- **In the US**, we expect full-year growth of 5.7% in 2021 on the back of significant fiscal stimulus and widespread immunization, but see the Delta variant weighing on consumer spending and production through Q3. We expect the unemployment rate to fall to 4.2% by year-end, and we believe that core PCE will likely peak in Q4 and end the year at 3.8%, before falling back to 2% by year-end 2022.
- **The Fed** has adopted outcome-based forward guidance for asset purchases, and we expect tapering will be announced in November and begin in December. We expect that a November announcement coupled with a \$15bn per meeting pace would mean that the FOMC will make the final taper at its September 2022 meeting, though a faster \$15bn monthly pace is also possible. We continue to expect liftoff in 3Q2023. On the fiscal policy front, we expect the passage of additional spending focused on infrastructure, social benefits, and long-term investment totaling around \$2.5tn and tax hikes of around \$1.5tn over 10 years, though the debt limit poses some risk to this.
- **In the Euro area**, we expect above-consensus full-year growth of 5.3% in 2021 reflecting strong pent-up demand, sustained fiscal support, and manageable Delta risk. We expect core inflation to peak at 2.5% yoy in November, before slowing sharply in early 2022.
- **The ECB** recently strengthened their forward guidance on interest rates to align with their new strategy, which we view as consistent with the first rate hike in 2025. We expect the PEPP pace will fall in 4Q and anticipate two further reductions in the purchase pace in 1H22 before the program is exhausted, and think an APP step-up or a separate program are feasible following PEPP's conclusion.
- **In China**, we expect 2021 real GDP growth of 8.2%, reflecting a drag from restrictions to contain the spread of the Delta variant in Q3 and a sequential rebound in Q4 as restrictions continue to ease and government-led investment steps up. With the virus outbreak seemingly under control, the largest downside risk to growth is shifting to the effects of ongoing regulatory tightening.
- **WATCH CORONAVIRUS**. While the Delta variant implies a slower pace of global reopening, our base case assumes that rising immunity owing to a combination of prior infection, vaccination, and booster shots will drive a continued recovery in global economic activity this year. We expect 50% of the global population to be vaccinated with a first dose in November and that 60-90% of people in all of the major economies will have some degree of immunity to COVID-19 by end-2021.

Goldman Sachs G/R.

Growth



Source: Haver Analytics and Goldman Sachs Global Investment Research. Note: GS CAI is a measure of current growth. We have recently revised our methodology for calculating this measure. For more information on the methodology of the CAI please see "Lessons Learned: Re-engineering Our CAIs in Light of the Pandemic Recession," Global Economics Analyst, Sep. 29, 2020.

Forecasts

Economics	GDP growth (%)				Interest rates 10Yr (%)				Markets				Equities												
	2021		2022		2021		2022		Last	E2021	E2022	FX	Last	3m	12m	S&P 500	E2021	E2022	12m	YTD	E2021 P/E				
	GS	Mkt.	GS	Mkt.	GS	Cons.	GS	Cons.									GS	Cons.	GS	Cons.					
Global	6.2	5.9	4.8	4.5	US	1.35	1.60	1.80	EUR\$	1.18	1.25	Price	4,700	--	4,900	--	4,900	--	S&P500	8.0	19.0	22.8x			
US	5.7	6.0	4.6	4.2	Germany	-0.34	-0.15	0.05	GBP\$	1.38	1.41	EPS	\$207	\$202	\$212	\$220	MXAPJ	9.0	1.0	15.9x					
China	8.2	8.4	5.6	5.6	Japan	0.04	0.10	0.20	JPY	110	110	Growth	45%	42%	2%	8%	Topix	4.0	16.0	21.8x					
Euro area	5.3	4.9	4.6	4.3	UK	0.65	1.00	1.25	£/NY	6.4	6.4	6.15													
Policy rates (%)	2021				2022				Commodities				Credit				Wage Tracker 2021 (%)								
	GS	Mkt.	GS	Mkt.	GS	Mkt.	GS	Mkt.	Last	3m	12m	bp	Last	E2021	2022	Consumer	E2021	E2022	CPI	Unemp. Rate	Q1	Q2	Q3	Q4	
US	0.13	0.18	0.13	0.41	Crude Oil, Brent (\$/bbl)	73	80	75	USD	IG	91	97	US	5.0	4.2	2.2	3.5	4.4	2.1	--	--	--	--	--	
Euro area	-0.50	-0.49	-0.50	-0.46	Nat Gas (\$/mmBtu)	4.94	3.65	3.45	HY	279	281	296	Euro area	2.0	8.4	1.4	7.9	--	--	--	--	--	--	--	--
China	2.30	2.35	2.30	2.47	Copper (\$/mt)	9,685	10,500	11,500	EUR	IG	98	90	China	0.9	--	1.2	--	12.1	--	--	--	--	--	--	--
Japan	-0.10	-0.02	-0.10	-0.03	Gold (\$/troy oz)	1,795	2,000	2,000	HY	294	285	275													

Source: Bloomberg, Goldman Sachs Global Investment Research. For important disclosures, see the Disclosure Appendix or go to www.gs.com/research/hedge.html.

Market pricing as of September 10, 2021.

Glossary of GS proprietary indices

Current Activity Indicator (CAI)

GS CAIs measure the growth signal in a broad range of weekly and monthly indicators, offering an alternative to Gross Domestic Product (GDP). GDP is an imperfect guide to current activity: In most countries, it is only available quarterly and is released with a substantial delay, and its initial estimates are often heavily revised. GDP also ignores important measures of real activity, such as employment and the purchasing managers' indexes (PMIs). All of these problems reduce the effectiveness of GDP for investment and policy decisions. Our CAIs aim to address GDP's shortcomings and provide a timelier read on the pace of growth.

For more, see our [CAI page](#) and [Global Economics Analyst: Trackin' All Over the World – Our New Global CAI, 25 February 2017](#).

Dynamic Equilibrium Exchange Rates (DEER)

The GSDEER framework establishes an equilibrium (or "fair") value of the real exchange rate based on relative productivity and terms-of-trade differentials.

For more, see our [GSDEER page](#), [Global Economics Paper No. 227: Finding Fair Value in EM FX, 26 January 2016](#), and [Global Markets Analyst: A Look at Valuation Across G10 FX, 29 June 2017](#).

Financial Conditions Index (FCI)

GS FCIs gauge the "looseness" or "tightness" of financial conditions across the world's major economies, incorporating variables that directly affect spending on domestically produced goods and services. FCIs can provide valuable information about the economic growth outlook and the direct and indirect effects of monetary policy on real economic activity.

FCIs for the G10 economies are calculated as a weighted average of a policy rate, a long-term risk-free bond yield, a corporate credit spread, an equity price variable, and a trade-weighted exchange rate; the Euro area FCI also includes a sovereign credit spread. The weights mirror the effects of the financial variables on real GDP growth in our models over a one-year horizon. FCIs for emerging markets are calculated as a weighted average of a short-term interest rate, a long-term swap rate, a CDS spread, an equity price variable, a trade-weighted exchange rate, and—in economies with large foreign-currency-denominated debt stocks—a debt-weighted exchange rate index.

For more, see our [FCI page](#), [Global Economics Analyst: Our New G10 Financial Conditions Indices, 20 April 2017](#), and [Global Economics Analyst: Tracking EM Financial Conditions – Our New FCIs, 6 October 2017](#).

Goldman Sachs Analyst Index (GSAI)

The US GSAI is based on a monthly survey of GS equity analysts to obtain their assessments of business conditions in the industries they follow. The results provide timely "bottom-up" information about US economic activity to supplement and cross-check our analysis of "top-down" data. Based on analysts' responses, we create a diffusion index for economic activity comparable to the ISM's indexes for activity in the manufacturing and nonmanufacturing sectors.

Macro-Data Assessment Platform (MAP)

GS MAP scores facilitate rapid interpretation of new data releases for economic indicators worldwide. MAP summarizes the importance of a specific data release (i.e., its historical correlation with GDP) and the degree of surprise relative to the consensus forecast. The sign on the degree of surprise characterizes underperformance with a negative number and outperformance with a positive number. Each of these two components is ranked on a scale from 0 to 5, with the MAP score being the product of the two, i.e., from -25 to +25. For example, a MAP score of +20 (5;+4) would indicate that the data has a very high correlation to GDP (5) and that it came out well above consensus expectations (+4), for a total MAP value of +20.

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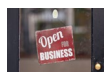
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Reg AC

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