An Oxford Analytica Briefing Book

Looking forward

Selected articles from the Oxford Analytica Daily Brief curated for the annual Horasis India Meeting

Malaga, Spain – June 24-25, 2018

Oxford Analytica

Horasis
The Global Visions Community

Oxford Analytica

Contents

Foreword

Michael Stopford
Managing Director
Oxford Analytica

Oxford Analytica is delighted to present this Briefing Book for the Horasis India Meeting 2018 in Malaga, Spain, reflecting our strong partnership with Horasis. From India's intense engagement with new technologies to insights on internal issues and the country's evolving geopolitical role, these briefs showcase our analysis of key trends, as you will find every day in the Oxford Analytica Daily Brief.

Oxford Analytica is an international analysis and advisory firm founded in 1975. It draws on a global expert network to serve executives in over 150 major corporations and professional services firms around the world, as well as leaders in more than 50 governments and international institutions.

Our Daily Brief service, which monitors worldwide risks, and our Advisory Practice enable the world's leading organizations to navigate complex global environments that impact strategy, investments, operations and policy.

In a landscape of fake news, data manipulation and fragmented authority, we provide trusted and objective geopolitical analysis. We help make tomorrow's world clearer today.

If you have any questions arising from the articles included here, or would like to know more about our services at Oxford Analytica, please do not hesitate to contact me.

Michael Stopford
Managing Director
Oxford Analytica

India backs blockchain but adoption will be cautious

Thursday, May 24, 2018

ICICI Bank headquarters in Mumbai (Reuters/Shailesh Andrade)

The central bank is bearish on cryptocurrencies, but banking, finance and state governments are bullish on blockchain

On April 22 the Reserve Bank of India (RBI) issued a directive ordering all cryptocurrency accounts on Indian exchanges to close by July. Despite this, on May 16 Indian information technology giant Infosys, in collaboration with seven major banks, launched a blockchain-driven trade finance initiative. In his budget speech, Finance Minister Arun Jaitley said that the government will “explore …blockchain technology …for ushering in digital economy”.

What next

Emerging markets including India will be at the forefront of blockchain technology adoption as they face high verification costs, their populations are underserved financially and existing providers are less entrenched, meaning entrants face less competition.

Subsidiary Impacts

- The ban on trading cryptocurrencies on Indian exchanges will drive investors to foreign exchanges rather than away from the asset class.
- The RBI ban on entities under its influence engaging in services relating to cryptocurrencies will slow blockchain adoption.
- Tests of blockchain in trade finance, 'know your customer' data and non-performing asset management will extend to other applications.
- Indian cities including Vizag in Andhra Pradesh are leading in adopting blockchain, supporting regional development.

Analysis

Usage of blockchain technology has risen gradually in the ten years since Satoshi Nakamoto -- a pseudonym of the paper's author (or authors) -- published the white paper outlining the vision for the distributed ledger system.

An advantage of blockchain technology is its immutability (unalterableness): the distributed ledger system records transactions permanently that is only accessible by the parties associated with the transactions, and the parties do not need to know or trust each other.

The technology also offers the potential to increase transparency and improve efficiency, lowering costs and speeding up projects, boosting GDP growth and cutting firms costs (see INTERNATIONAL:The future is regulated decentralisation - May 23, 2018).

The technology mitigates some of the unique challenges India faces. The UN expects India to have the largest population in the world within six years, but for corruption the country is ranked 81st by Transparency International. A distributed ledger system could bring opportunities to the whole population. Its immutability can help to reduce corruption.

In India, the launch of the Blockchain Foundation of India in December 2017 aims to raise awareness and to bring together start-ups, policymakers and enthusiasts. Research agency 6W Research expects the Indian blockchain market to grow at a compound 58% annually from 2018 to 2024.

Cryptocurrencies driving blockchain growth

The authorities are clamping down on cryptocurrencies. In April the RBI released a notification banning all entities under its influence from providing services relating to cryptocurrencies and ordering all Indian cryptocurrency exchanges to close by July. Further plans have not been announced.

Cryptocurrencies use a blockchain ledger to log each transaction without identifying the buyer or the seller, appealing to criminals. Authorities are uneasy about the lack of regulation. China and South Korea, two of the largest markets, are also among the strictest (see INTERNATIONAL: Cryptocurrency regulations will vary - May 10, 2018).

Data from the exchanges suggests India's cryptocurrency market has 5 million traders and is worth almost 2 billion dollars, but the upcoming domestic ban is making it difficult to convert fiat money into cryptocurrencies. Cryptocurrencies will still be traded on international platforms, peer-to-peer and using cash.

The ban could slow the pace of blockchain ecosystem development in India as bitcoin is the first and largest proof of concept.

Banking and financial services

Some banking and financial services sectors could rapidly adopt blockchain (see INTERNATIONAL: Multilateral crypto oversight will rise - February 19, 2018). ICICI Bank, India's largest private retail bank, has 250 corporations in its blockchain platform for trade finance transactions.

The technology could facilitate paperless and faster transactions including cross-border remittances and cross-city vendor payments. Rating agency Moody's warns that banks' fee income will decline as blockchain eliminates intermediaries.

250

Firms on ICICI bank's trade finance blockchain platform

Banks remain positive though. 'BankChain' brings 37 banks together to explore, build and implement blockchain solutions, the majority in India including the State Bank of India, the country's largest lender, but also Deutsche Bank and Middle Eastern banks. Piloted applications include know your customer (KYC) details and employee verification.

The first product operating is Clear-Chain, which enables the sharing of KYC and anti-money laundering data among the banks. The latest is a blockchain last month on which 'stressed assets' can be traded.

Government services

The government's policy planning unit NITI Aayog is also adopting blockchain by developing the IndiaChain programme, serving two purposes:

- IndiaStack, the identification database, will use a blockchain network, connecting individuals identities to systemic records in IndiaChain including health and property ownership.
- Maintaining transparent records will be easier, helping to reduce corruption and money laundering.

NITI Aayog is also trialling a proof of concept giving each medicine a unique identification to make it harder to trade fake drugs.

The Aadhaar biometric database uses twelve-digit digital identifiers authenticated by finger prints and retina scans to give the population proof of identity. India Stack allows people to store and share data through secured and connected systems in the Aadhaar framework, managed by the central UIDAI authority.

This is a single point to attack and thousands of Aadhaar cards have been hacked. A distributed ledger could increase security as the individual's data could be encrypted using unique identifiers and temporary identifiers could be used for information to be accessed without identities being revealed.

Regions

Andhra Pradesh is leading among states using blockchains for government services. The majority of civil cases in India involve property disputes and using a distributed ledger to maintain unchangeable land records promises systemic efficiencies.

The technology promises to unburden the judicial system, to reduce fraud and time spent by parties in court. Productivity and GDP growth could benefit over time. The state is also conducting pilots using blockchain to record vehicles and civil supplies. Telangana, Gujarat, Karnataka and Maharashtra are also running pilot projects.

Andhra Pradesh is developing the city of Hyderabad as a technology-driven economy and building the city of Vizag as 'Fintech Valley', aiming to generate 500,000 jobs and investment of 2 billion dollars by 2020. This is ambitious though -- Vizag received 900 million dollars of investment and created 5,500 jobs by the end of 2017.

Challenges

Basic challenges may slow the plans for blockchain to bring opportunities to all. The Internet and Mobile Association of India estimates that while internet penetration was 65% in urban areas by end-2017, rurally it was 20%. The World Bank estimate that less than 80% of rural households have electricity access while 98% of urban households do. Energy cost is another concern. India is a net fuel importer and raw materials account for 45% of private non-financial firms' total costs.

Companies are focusing on developing knowledge and skills to tackle the lack of awareness of blockchain. However, in many cases the costs outweigh the benefits. Indeed, research by the Economic Times estimates that only 5,000 of India's 2 million software developers have blockchain skills. IT companies are upskilling developers, but talent shortages are expected.

0.25%

Indian software developers with blockchain technology skills

Engaging with the ecosystem of vendors, partners and platforms also requires more information about the benefits to each party. After adoption, security and integration will come to the fore. Cryptocurrency exchanges have been hacked but the bitcoin blockchain has never been hacked as more than 50% of the computer power driving the ledger would need to be controlled. This would be extremely difficult as it is so decentralised.

Policy will be key to supporting cashless consumption

Friday, May 4, 2018

‘Cashless’ payments are growing fast, but policy will be key to ensure inclusion, security, privacy and competition


A Big Issue vendor demonstrates using a Chip and Pin device, London, UK (Reuters/Stefan Wermuth)

Transacting electronically is quicker and cheaper than using cash, provided the infrastructure is in place to support the transactions. Across the world, the number of electronic transactions and the supporting infrastructure has surged over the last two decades. Card payments averaged 25.3% of GDP in 2016 in the 24 countries the Committee for Payments and Markets Infrastructure covers, up from 12.8% in 2000. Despite this, cash retains a key role, paradoxically even more since the global financial crisis, as ultra-low interest rates in the ten post-crisis years reduced the opportunity cost of holding cash.

What next

China and other low and middle-income countries will lead the growth of cashless payments but will monitor the policies advanced countries adopt to ensure as much of the population as possible can participate and benefit from a cashless society. More regulation is likely, especially to address privacy and security, while schemes to assist vulnerable members of society directly will proliferate. Cash will decline as a means of payment but will retain its role as a store of value.

Subsidiary Impacts

- All cashless transactions are automatically tracked, forcing consumers to sacrifice more privacy without the ability to ‘opt-out’.
- An individual’s credit standing will gain importance and may become as key to gaining employment as it is to accessing financial services.
- There will be a digital divide not only in access to and exclusion from financial services but also the ability to pay.
- Payments for services could become the fastest-growing category of cashless transactions.

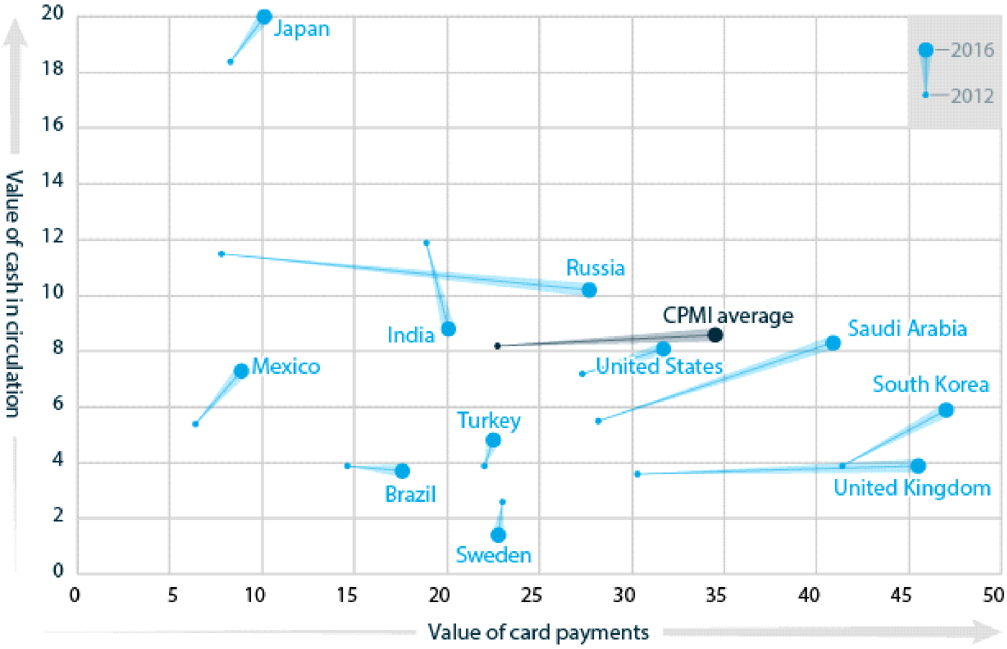
Analysis

Non-cash transactions grew by 11.2% to reach 433.1 billion dollars in 2015, the highest growth in a decade, and the latest World Payment Report estimates that volumes of non-cash transactions will grow by more than 10% between 2015 and 2020. Non-cash transactions in emerging markets are expected to grow by closer to 20% over this period, and by around 5% in advanced markets.

For the individual, the ubiquity and seamlessness of cashless payments depends on the robustness of the digital infrastructure and the network of merchants equipped to accept cashless payments. Point of sale (PoS) terminals have fallen in price over the last fifteen years, enabling more businesses to acquire them and they have proliferated across advanced and emerging markets (see PROSPECTS 2017-22: Fintech - December 5, 2016).

In the United Kingdom, United States, Japan, Australia, euro-area and Sweden, card payments as a share of GDP doubled or more between 2000 and 2016. In China, India, Brazil and Russia, card payments trebled or more as a share of GDP over the same period.

Cash in circulation and card payments, 2012-16 (as a % of GDP)



Source: The Committee on Payments and Market Infrastructures (CPMI), December 2017 report 'Statistics on payment, clearing and settlement systems in the CPMI countries'. There are 24 CPMI juristictions.

The most advanced cashless adoption markets share common traits:

- Non-financial domestic actors, often technology or internet firms are driving cashless growth.
- The government is overtly supportive, or not interfering.
- Cultural and consumer behaviours are amenable to cashless payments.

China and India are leading cashless adoption among emerging markets, accounting for 32.1% of non-cash transactions in 2014-15, and growing by more than 20%, treble the 6.8% mature markets growth.

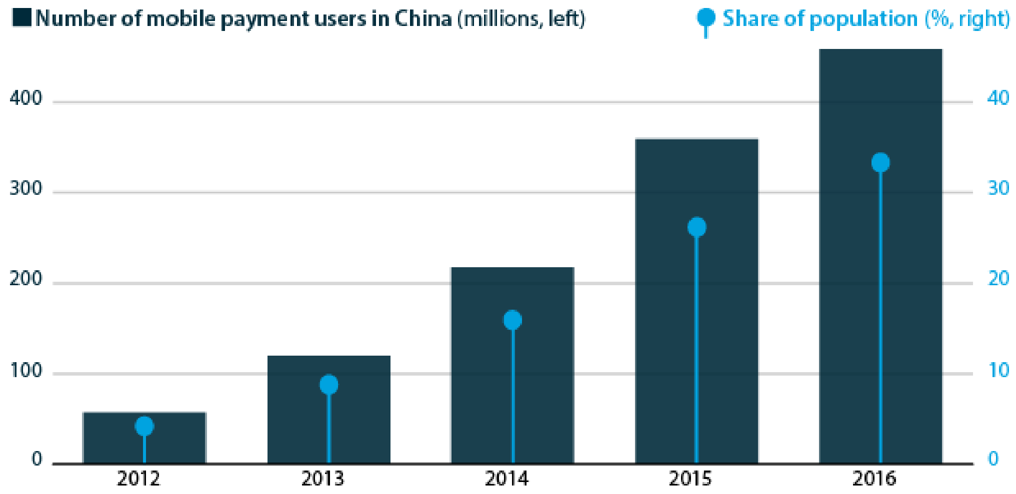
1/3

- Share of China's population that made mobile payments in 2016

China

In China the technology and internet companies Alibaba and Tencent have driven the growth. Alibaba's Alipay and Tencent's WeChat process over 90% of the country's mobile payments. The Global and China Mobile Payment Industry Report for 2017-21 estimates that mobile payment transactions reached 294.97 trillion renminbi (46.4 trillion dollars) in 2017, a 41.4% increase from 2016, and expects transactions to reach 793 trillion in 2021.

China: Mobile payment users



Source: China Internet Network Information Centre

For Alibaba and Tencent Mobile, while the fee revenue is substantial, typically 0.6% of transactions, the consumer data they can gather is transforming their relationships along the supply chain from buyers to clients, enabling them to customise their product and service offerings. However, regulation will increasingly address the security and privacy risks this raises.

India

Aadhaar is a biometric database that uses a twelve-digit digital identifier authenticated by finger prints and retina scans. Before its launch in 2009, half of Indians had no form of identification. By 2016, 1.1 billion, or 95% of the population, had proof of identity, giving them access to public and financial services and helping to reduce fraud and corruption. Since Aadhaar's launch, 270 million bank accounts have been opened.

The 2016 rollout of India Stack enhanced the digitalisation infrastructure, allowing people to store and share personal data through a series of secured and connected systems in the Aadhaar framework.

In November 2016, Prime Minister Narendra Modi's government removed India's two most common banknotes, the 500 (7.5 US dollar) and 1,000 rupee notes from legal tender (see INDIA: Demonetisation will dampen 2017 GDP growth - November 23, 2016). Demonetisation disproportionately affected the poor, choking off working capital for cash-reliant businesses and the rural economy, which largely lacked the infrastructure for processing cashless payments.

However, the policy enjoyed some success. In August 2017, Modi estimated that 5.7 million more people paid tax after the demonetisation.

Private sector efforts are also gaining traction. Digital transactions and mobile wallet subscriptions are seeing significant growth. The Alibaba-backed Paytm platform has 250 million subscribers, double from 2016.

Global developments

In mature markets, the debate is focusing on privacy, fairness and inclusion.

Inclusion risk

The difficulty of achieving 'cashless inclusion' is disproportionately higher for the poor, near-poor or undocumented. Cashless inclusion largely requires financial inclusion, creating difficulties for the unbanked and undocumented. M-PESA in Kenya does not require users of its mobile payment platform to have a bank account but for most platforms, mobile payments are tied to bank accounts.

In Sweden, cash in circulation accounts for less than 2% of GDP, compared to more than 8% in the United States, Japan, the euro-area, China and India. The law allows shops to refuse to take cash.

Sweden is leading the way not only towards a completely cashless society but also towards everyone being included

The magazine Situation Stockholm has equipped its homeless sellers with credit card readers, highlighting the role that direct assistance will play in ensuring vulnerable populations are included in cashless societies. Indeed, Sweden's central bank governor urges that the cashless transition occurs "at a rate that does not create problems for certain ...groups or exclude anyone".

Oligopoly risk

The Bank also highlighted that in Sweden a small number of banks and non-bank institutions are responsible for all payments, and that widening this would make the economy more resilient to a crisis. However, in many sections of the supply chain, there is scope for start-up firms to build market share. Improving the regulation and infrastructure around cashless payments will support and encourage competition and innovation.

Debt risk

The advent of payment platforms morphing into consumer financial services platforms runs the risk of making it easier to acquire debt, potentially changing attitudes in countries that have traditionally avoided accumulating consumer debt.

In China, short-term loans to households rose by 13% year-on-year in the first quarter of 2018, the most since 2016. However, the government has put in place measures to curb this, tightening access to payment licenses and reducing the number of non-bank payment institutions to 247.

Starting this year, all electronic payments will go through a central bank payment clearing platform, Wanglian. Last month the central bank also implemented rules on mobile payments made by QR code (machine-readable code containing price and product information). Daily transaction limits will be set at three levels for users based on their demand and risk profile; at 500 renminbi, 1,000 renminbi and 5,000 renminbi.

India will struggle to create enough jobs

Tuesday, March 13, 2018

Rising unemployment is a risk to Prime Minister Narendra Modi's government as it seeks re-election next year


A workshop in an industrial area in Mumbai, India. (Reuters/Francis Mascarenhas)

India's ruling Bharatiya Janata Party is facing criticism over the country's 'jobless' growth. Modi in 2014 promised to create 10 million jobs per year, but estimates provided by India's Labour Bureau suggest his government is falling far short of this target.

What next

The Modi government will unveil more employment schemes and emphasise skill development ahead of the 2019 polls. It may claim a significant uptick in job creation to appeal to voters, but most data sets will likely show that India is struggling to skill its population and absorb its growing labour pool.

Subsidiary Impacts

- India's main opposition Congress party will emphasise the lack of job creation in its election campaigning.
- Further spending on infrastructure to help create jobs would put pressure on India's fiscal deficit target.
- The government's policy of disinvestment in public sector undertakings will raise concerns over job losses.

Analysis

According to the 2011 census, 422 million of 1.2 billion Indians were in the age group 15-29. Around 13 million people enter the job market every year. Ensuring employment for India's young population is a massive challenge for Modi as he seeks a second term in office (see INDIA: Survey identifies risks to Modi's popularity - November 28, 2017).

422mn
Indians aged 15-29

It is difficult to obtain reliable data on employment in India, given the disparities between the formal and informal sectors. The last detailed analysis -- the National Sample Survey -- had 2011-12 (July-June) as its reference year.

However, quarterly and annual employment surveys conducted by the Ministry of Labour and Employment's Labour Bureau in recent years, indicate shrinking job creation.

Surveys

Going by the Labour Bureau's annual household surveys, total employment (on a principal status basis) among those aged 15 and above fell by 3.7 million between fiscal year 2013/14 (April-March) and 2015/16.

Oxford Analytica

3.7mn

Fall in employment, 2013/14-2015/16

If the annual surveys are accurate, the fall in employment is occurring in the agricultural sector (especially for women) as well as manufacturing and construction in urban areas (especially for men). The sector that is recording a rise in employment is retail and wholesale trade, which appears to be absorbing the unemployed in a country with limited social security and social protection.

The Labour Bureau's quarterly enterprise surveys (which have varying samples across time) do not suggest such a drastic fall in employment, but they too suggest that job creation has been slowing down.

A study published in January by Bangalore-based researchers said that data from the Employees' Provident Fund Organisation showed 5.5 million jobs being created in the formal sector in 2017/18, up from 4.5 million in 2016/17.

However, any increases are unlikely to be so dramatic. The Labour Bureau says that 64,000 jobs were created in eight key sectors (manufacturing; construction; trade; transport; accommodation and restaurants; information technology and business process outsourcing; education; health) in April-June 2017 (with 87,000 manufacturing jobs lost).

This was the lowest rate of increase in three quarters, coming after 185,000 jobs were created in January-March 2017 and 122,000 in October-December 2016.

In the recent past, the software services and information-technology-enabled services sector have been the largest providers of new employment. However, they are experiencing a slowdown in employment growth and are likely to see skill shifts that necessitate retrenchment of the already employed.

Competition in the area is expected to accelerate automation of routine tasks to reduce costs, leading to some loss of dynamism in new job growth (see INDIA: Role in data trade may be stymied - October 16, 2017).

Schemes

The government has announced several schemes to create jobs. At a World Food India event last November, Modi said that a plan to create "world-class" food processing infrastructure would generate 500,000 jobs over three years. As part of a fiscal stimulus package unveiled last October, Finance Minister Arun Jaitley earmarked 6.9 trillion rupees (106.2 billion dollars) for investment in roads and highways that he said would create 142 million days of labour (see INDIA: Fiscal deficit will widen - November 7, 2017).

Modi's administration will likely advance more schemes as the 2019 elections draw closer, but indications are that they are not working.

On the demand side, Modi is trying to expand employment through the 'Make in India' strategy that seeks to make India a leading global manufacturing hub. However, industry's share in GDP has not changed much and manufacturing employment growth has fallen short of output growth.

On the supply side, young people are being encouraged to become employers rather than job seekers. The 'Startup India' initiative launched in 2016 offers special concessions to start-ups.

The Micro Units Development and Refinance Agency (MUDRA) Bank founded in 2015 provides loans to financial institutions, under a programme known as the Pradhan Mantri MUDRA Yojana (PMMY), for them, in turn, to extend credit to small and medium-sized enterprises. In 2016/17, loans under the PMMY amounted to 1.8 trillion rupees. The target for 2017/18 is 2.4 trillion rupees.

While interest on PMMY loans is 9-12%, the real benefits are the six-month moratorium on interest and amortisation payments, and the absence of collateral demands. This means borrowers can avoid moneylenders.

According to the Small Industries Development Bank of India, refinance availed by public sector banks (PSBs) under the PMMY fell to 18.9 billion rupees in 2016/17 from 24.3 billion rupees in 2015/16. PSBs have been struggling under the burden of bad debt (see INDIA: Remedy for bad debt may not bring relief - September 22, 2017).

Skills

The other major supply-side initiative is skill development, designed to match workers' capabilities with market demands. Modi launched the Skill India campaign on World Youth Skills Day (July 15) in 2015, hoping to improve the skills of 402 million people (104 million fresh entrants into the labour force and 298 million in the existing workforce) by 2022. The programme includes the skill development programme known as the Pradhan Mantri Kaushal Vikas Yojana (PMKVY).

In his cabinet reshuffle early last September, Modi appointed Dharmendra Pradhan, already minister of petroleum and natural gas, as minister of skill development and entrepreneurship in place of Rajiv Pratap Rudy.

> Pradhan is entrusted with skilling India's population

Pradhan's appointment underscored Modi's prioritisation of job creation. However, the Ministry of Skill Development and Entrepreneurship in 2016/17 scaled down the Skill India target to just under 127 million people.

The training centres for skill development are often understaffed and ill-equipped. The Committee for Rationalisation and Optimisation of the Functioning of the Sector Skill Councils found that these councils set arbitrary targets that private sector partners are expected to realise with the help of concessional loans from the government. Targets are often shown to have been achieved, but the quality of training and assessment is poor.

While only 12.4% of the 1.8 million trained under the PMKVY in 2015/16 were placed in jobs, there are also charges of fund misuse.

Data from the National Skill Development Corporation indicates that 34 institutes, accounting for 0.2% of the total, trained almost 40% of beneficiaries under the first phase of the PMKVY. In many cases, the infrastructure available was far from adequate to support the numbers supposedly trained. According to a reply to a parliamentary question in early 2016, five training partners and eleven skills training centres operating under the PMKVY were suspended for fake enrolments and breaching marketing guidelines.

Difficulties in skilling the population will only accentuate India's unemployment problem.

Oxford Analytica

Delhi will push to promote research and development

Friday, March 16, 2018

The government wants private firms to bolster the efforts of the public sector


Employees at an R&D wing of SS Gas Lab Asia in Delhi (Reuters/Adnan Abidi)

Last month’s Economic Survey, which the finance ministry presents to parliament as a prelude to the budget, highlighted the poor state of research and development (R&D) in India. However, the country is becoming a preferred destination for R&D conducted by foreign companies and an estimated 1 million Indian-trained scientists and technologists work in laboratories abroad.

What next

Delhi will look to promote R&D, especially by reforming patent registration and higher education. If such measures are successful, R&D activities in India’s public and private sectors should increase and the country may reduce its technological dependence.

Subsidiary Impacts

- Delhi will continue to court foreign direct investment (FDI) in R&D.
- India may benefit from a reverse ‘brain drain’ if its skilled professionals struggle to secure US H-1B visas.
- The Modi government will face more accusations of interference in universities and come under pressure to desist.
- Reports suggest that the US administration is poised to restrict technology transfer to China; R&D in the whole of Asia would be affected.

Analysis

This year's Economic Survey for the first time added a chapter on R&D. Though R&D expenditure tripled in cash terms between fiscal year 2004/05 (April-March) and 2014/15, it remains around 0.7% of GDP. This is less than R&D spending in leading developed economies (eg, 4.3% of GDP in South Korea) and even other BRICS countries (eg, 2.1% in China).

0.7%

India's R&D expenditure as a proportion of GDP

In 1990, Indian-based scientists were responsible for twice as many publications in leading science and technology journals as China-based colleagues. In 2011, they produced just one-quarter of the Chinese output. In 2015, China filed for 1,101,864 new patents and the United States for 589,410, while India filed for only 45,658.

Public sector bias

India's domestic R&D is sustained largely by public expenditure, and Delhi will aim to incentivise greater activity within private industry.

In 2014/15, the central government funded 45.1% of R&D, with state governments adding another 7.4%, public sector industries 5.5% and higher education institutions 3.9%. The private sector supported 38.1%. In the United States, Japan and South Korea, government funding represents less than 20% of R&D.

45%

Proportion of Indian R&D funded by the central government, 2014/15

The public sector bias is partly responsible for R&D expenditure being skewed towards fields which are not the most economically significant. In 2014/15, 37.8% of the central government's R&D spending was devoted to defence and 16.6% to the space programme. Only 2.9% went to biotech and 2.4% to medicine.

India's (mainly public sector) universities also contribute little. While they did produce 27,327 new PhDs in 2014/15, only 15,246 were in science and technology subjects compared to 30,017 in China and 26,520 in the United States.

Within the private sector, the Tata Group (India's second-largest conglomerate) is unusual in maintaining a relatively high ratio of R&D spending-to-revenue (2.8% in 2016/17). The Aditya Birla Group (India's third-largest conglomerate) spent barely 1.0% and Reliance Industries (India's largest conglomerate) less than 0.5% of revenues on R&D.

Many leading Indian companies have slashed their R&D expenditure in recent years. Between 2005 and 2013, India's two largest pharmaceutical companies, Ranbaxy Laboratories and Dr Reddy's Laboratories, halved spending as a proportion of sales.

In 2007, the government reduced R&D allowances while offering greater assistance -- the caveat being closer supervision by the Department of Science and Technology. Of India's 1.3 million registered companies, only 1,800 are currently on the Department's books and claiming allowances.

Research environment

Despite India's poor research environment, multinational corporations (MNCs) have made the country a prime destination for FDI in R&D.

- Between 2003 and 2009 (the last years for which full statistics are available), 706 MNCs invested 29.6 billion dollars in R&D facilities -- equivalent to 8.3% of total FDI.
- In 2012, India took 12.9% of the 11.3 billion dollars that US companies invested in offshore R&D -- more than twice that of any other country.
- In 2016, an estimated 373,000 staff were employed in 1,140 research centres related to, and mostly funded by, MNCs.

However, the flood of FDI into R&D in India has not greatly stimulated Indian-funded research. In part, this may reflect the very narrow areas into which it has been channelled. Between 2003 and 2009, 74.2% of new research jobs created were in the software and information technology sector alone (see INTERNATIONAL: Protectionism threatens Indian services - August 25, 2017).

The auto sector, in which 9.9% of new research jobs were created, has become an important growth area. Hyundai has built a global research facility at Hyderabad and Maruti Suzuki one at Rohtak, while Volkswagen recently announced plans for a new centre, probably in Pune.

Nonetheless, linkages to the wider economy are not strong. Few MNCs have brought R&D to projects in which they have Indian partners. Of the 706 MNCs investing in R&D between 2003 and 2009, only 117 had Indian partners.

Policy initiatives

Much of the government's effort at improving the R&D environment has been focused on better protection for intellectual property rights (IPR). In recent years, firms have been reluctant to transfer core research to India. A 2013 study found that, among the MNCs it surveyed, more than 50% used India only for peripheral and supplementary investigation.

Since 2005, Delhi has sought to coordinate IPR legislation with WTO-backed convention. In 2016, as part of his 'Make in India' initiative to encourage India-based manufacturing, Prime Minister Narendra Modi launched a programme to tighten rules regarding IPR.

> IPR protection may not be the key to successful R&D

However, it has never been clear that strong IPR protection is the key to successful R&D. China's strong R&D growth has come despite notoriously lax IPR regulation (see CHINA: Monopolies and abuses hold back tech sector - February 12, 2018). The sharp decline in R&D in Indian pharma, reflected in the declining expenditures of Ranbaxy and Dr Reddy's, coincides with the introduction of WTO-backed rules.

Tax policies and patent registration may be more important, and Delhi will need to initiate reforms. Indian procedures for registering patents are extremely bureaucratic and cumbersome. Whereas it takes on average three years to secure a patent in the United States or the United Kingdom, in India it takes six years.

University sector

The greatest obstacles to establishing a vibrant R&D culture in India are in the country's universities, and Delhi will also need to address these problems.

Research and teaching have been structurally separated in India. This prevents the private sector from approaching universities and establishing jointly funded (public-private) projects, as is common in the United States and the United Kingdom. It also may do little for the quality of teaching, with complaints frequently expressed about graduates lacking the skills for industry.

The bulk of academic research in India takes place in specialist institutes, mostly under government funding and direction.

However, Indian-educated researchers play leading roles in R&D in many other countries. In 2015, 91,000 Indian-born people with PhDs were working in the United States.

Redressing structural deficiencies in Indian universities may pave the way for domestically trained talent to contribute to R&D in India itself.

Indian opposition parties will disrupt parliament more

Tuesday, April 24, 2018

The world's largest democracy is seeing increasing obstruction to legislative processes


A statue of Mahatma Gandhi outside the Parliament building in Delhi (Reuters/Adnan Abidi)

Prime Minister Narendra Modi earlier this month led a public fast in protest at disruptions inside parliament, which cost the budget session nearly 250 hours in lost deliberations. While the Indian legislature's role in holding the executive to account is curtailed, popular riots provide a means to challenge government policies. India's general election is due in 2019, when Modi's Bharatiya Janata Party (BJP) will seek to retain power.

What next

While opposition-led disruptions of parliament are likely to intensify in the run-up to next year's poll, this may simply encourage the government to pass more ordinances when parliament is not sitting. Modi may be more concerned over public protest movements, which have a greater impact on potential voters.

Subsidiary Impacts

- Opposition parties' attempts to have the Supreme Court chief justice impeached are unlikely to succeed.
- Spikes in civil violence are likely ahead of forthcoming state elections.
- The BJP and its allies may achieve a majority in the upper house after 2019, if Modi's party retains power.

Analysis

An influential work on the 'Indian Paradox' (by Myron Weiner) famously sought to explain the supposed contradiction between the country's enduring democratic political system and its propensity to civil violence.

Despite India's status as the world's largest democracy, disruption of parliamentary business by opposition members has grown in recent years. Whereas the tenth lower house term (1991-96) lost 10% of its time to disruption, this rose to nearly 40% by the 15th (2009-14).

The most recent opposition-led obstruction to this year's budget session (January 29-February 9, March 5-April 6) cost the lower house nearly 128 hours and the upper house over 121 hours of potential deliberations, curtailing debate on the finance bill.

40%

Proportion of time lost in parliament's lower house, 2009-14

Outside of parliament, India's strong tradition of direct public action in the form of riots often serves to constrain government power.

Parliament's role

The time available for parliamentary disputation has been contracting. In the 1950s, the lower house sat for an average 127 days per year. It met for only 73 days in 2011 and 57 in 2017.

As a result, many of parliament's basic functions have become attenuated:

- The ability of members to question ministers is diminishing. Just five short-notice questions were answered in the 14th parliamentary term (2004-09).
- Despite reforms in 1993 introducing parliamentary committees, scrutiny of ministerial spending and performance is becoming perfunctory. In the decade up to the 2014 budget session, 86% of ministerial budgets were passed without discussion.
- Legislative debate is being curtailed. This year's finance bill, enacting the annual budget, was passed in just 25 minutes.

25

Minutes taken to pass this year's finance bill

Parliamentary rules set quorum at only 10%, enabling governments to rush through bills even when opposition members boycott proceedings. By convention, many bills are passed 'on the nod' in the dying hours of each parliamentary session. The recent winter session (December 15-January 5) saw 22 bills passed in just 13 sittings.

The change in the Indian parliament's approach reflects shifts in the operation of party politics. Legislation passed in 1985 to restrain politicians from cross-party defection has had the effect of imposing overly rigid party discipline, with members at risk of losing their seats if they disobey leadership instructions. This makes voting outcomes largely predetermined and reduces the impact of debate.

While further parliamentary disruptions are likely, a diminished legislature is less able to check the power of the executive.

Governance issues

Obstruction to parliamentary proceedings is of little concern to a ruling party when it commands a large majority. The BJP-led National Democratic Alliance (NDA) has 315 of 545 seats in the lower house.

Shortage of debating time is more of a problem for a government when its position is weaker. The NDA has 87 of 245 seats in the upper house. In the last three parliaments, several bills passed by the lower house were held up in the upper house, though the upper house cannot throw out 'money' bills.

Ordinances have the force of law

The government can issue ordinances, which have the authority of law, when parliament is not in session. These are approved by the president after cabinet clearance and must be passed within six weeks of parliament reassembling. Ordinances were most extensively used during the 'Emergency' (1975-77) under former Prime Minister Indira Gandhi, but Modi issued 22 within just over two years from taking office in 2014.

India's Supreme Court has ultimate authority over the constitution. It has tended to encourage limits on the use of ordinances, saying that they cannot be issued repeatedly without parliamentary approval.

However, there are signs of faltering confidence in India's judiciary. In January, four Supreme Court judges made public complaints against Chief Justice Dipak Misra, accusing him of improper allocation of cases. Misra is due to retire in October, but opposition parties last week submitted a petition to Vice President Venkaiah Naidu, as head of the upper house, motioning for the chief justice's impeachment.

A judicial impeachment would require a two-thirds majority in both houses of parliament, which must be convinced of "misbehaviour" and "incapacity". Naidu rejected the motion on April 22. India's main opposition Congress party yesterday said it would challenge the decision in the Supreme Court.

A counterbalance to executive power at election time is the Election Commission of India, which is statutorily empowered to resist ruling-party interference. The different cycles of local, state and federal polls also keep political parties under constant pressure.

Rule by riot?

A strong check on the government in India comes from civil disruption, highly regarded as a tool of political protest since the days of the independence movement led by Mahatma Gandhi.

61,974

Number of riots in 2016

In 2016, there were 72,829 civil disturbances or 'offences against public tranquillity' including 61,974 cases of official 'riot'. These numbers are significantly higher than in the mid-2000s; in 2005, there were 56,235 civil disturbances including 48,170 riots. They are lower than in 2000, when there were 80,456 civil disturbances including 68,917 riots.

There are multiple causes of riots in India, covering caste and religion as well as economic and political issues. With per capita police resources stretched thin, they can be difficult to contain (see INDIA: Police will face calls for more reform - December 1, 2017).

Critics of the Hindu nationalist BJP accuse it of fomenting inter-religious violence to enhance the party's appeal to India's Hindu majority (see INDIA: Spread of Modi's influence may entail violence - August 17, 2017).

However, riots more generally can be a risk to the government by turning voter opinion against it. In 2007-08, following large-scale rioting at Nandigram and Singur in West Bengal state, former Prime Minister Manmohan Singh's Congress-led government dropped land acquisition policies that it had previously strongly endorsed. Modi's recent offer of guaranteed procurement prices to small farmers follows a surge in 'agrarian' riots, which jumped to 4,837 in 2016 from 628 in 2014.

India's government tends to respond to the popular mandate, but outside parliament rather than inside it. With the 2019 elections fast approaching, Modi will be concerned by any spikes in popular protests.

Oxford Analytica

China and India will tone down differences for now

Wednesday, May 30, 2018

The Asian rivals are stepping up efforts to sound cooperative


Chinese President Xi Jinping and Indian Prime Minister Narendra Modi (Reuters/Amit Dave)

Chinese President Xi Jinping and Indian Prime Minister Narendra Modi will meet when China hosts the Shanghai Cooperation Organisation (SCO) summit in Qingdao in early June. The two leaders had informal talks in Wuhan in April. China and India last year were involved in a 73-day standoff at their tripoint with Bhutan. Delhi opposes Beijing’s Belt and Road Initiative (BRI).

What next

China and India will downplay their disputes at the upcoming summit and avoid bilateral fights for at least one year, with further border confrontation this summer now looking unlikely. However, relations will be cool, with India resisting calls to join the BRI and China increasingly disinclined to try persuading it otherwise. Both countries will encourage improved market access for their products, but easing of restrictions will be slow.

Subsidiary Impacts

- Beijing and Delhi will curb their rhetoric on Tibet in media statements, without compromising on territorial differences.
- The SCO will explore means of stepping up counterterrorism cooperation.
- Bhutan may in the medium term establish diplomatic relations with China for the first time.

Analysis

Following the conciliatory dialogue between Xi and Modi at Wuhan, the new resolve between China and India to manage their differences better will be evident on several occasions throughout the rest of 2018.

The upcoming SCO summit will be the first since India and Pakistan joined the political, economic and security organisation as full members last year. The SCO, founded in 2001, now comprises eight members: China, India, Kazakhstan, Kyrgyzstan, Pakistan, Russia, Tajikistan and Uzbekistan.

After meeting at Qingdao, Xi and Modi will sustain their conciliatory tone at the BRICS summit in South Africa in July and the East Asia Summit in Singapore in November.

Beijing and Delhi will seek to stabilise ties without addressing their fundamental divergences over territory, connectivity and trade.

Borders and waters

After the Wuhan talks, India's foreign ministry emphasised the need to raise the "predictability" and "effectiveness" of China-India border relations.

There is no formally agreed border between China and India. Face-offs between the two countries' security forces frequently occur at various points on the 3,488-kilometre frontier. In 2017, India recorded what it considered to be 426 border transgressions by China's People's Liberation Army, up from 273 in 2016. The standoff at Doklam, at the China-India-Bhutan tripoint, raised fears of open conflict.

China has significantly stepped up militarisation at the tripoint, but there is unlikely to be any severe tension there with India either side of the SCO summit. China's Communist Party is committed to economic reforms at home and, diplomatically, it faces potential difficulties involving North Korea and the United States. India's ruling Bharatiya Janata Party is keen to avoid a border crisis as it focuses its attention on the 2019 general election.

The two sides will also avoid a war of words. Chinese state media have switched from last year warning of war to discussing what Xi described at Wuhan as a "new chapter" in China-India ties.

India is committed to bilateral and multilateral martime pacts that potentially make China wary. Last week, India and Vietnam held naval drills in Vietnamese waters. The 'Malabar' exercise between India, Japan and the United States will be held on June 7-15 off Guam in the Pacific Ocean.

However, Delhi will seek to assuage Beijing's concerns over strategic encirclement.

In 2017, India-US and India-Japan joint statements mentioned freedom of navigation in the 'Indo-Pacific', cutting across China's expansive maritime claims in the South China Sea. However, India's statement issued after consultations with the 'Quad' last November made no such allusion (see CHINA-US: Rivalry in South China Sea is muted for now - March 2, 2018). Australia is the one Quad member that will not participate in the upcoming Malabar drills, reportedly due to India's rejection (see INDIA: ‘Quad’ ties will be informal for now - February 27, 2018).

Counterbalance

India and China seem to have reached an understanding to accommodate their separate connectivity projects.

> Delhi and Beijing will respect each other’s connectivity projects

China will use the SCO summit to promote its BRI (see ASIA: Belt and Road will alter the geography of energy - May 23, 2018). India will be the only member at the summit refusing to endorse the scheme.

Beijing has accepted that Delhi cannot be persuaded to join in the short term, mainly because the BRI's China-Pakistan Economic Corridor (CPEC) passes through Pakistani-administered Kashmir; India and Pakistan dispute sovereignty of the Kashmir region. India's ambassador to China earlier this year underscored Delhi's belief that the CPEC violates India's "territorial integrity".

Delhi is promoting alternative infrastructure models in Asia and Africa. India and Japan are talking of an Asia Africa Growth Corridor. India, Russia and several other countries are projecting a 7,200-kilometre International North-South Transport Corridor.

Delhi also hopes to develop Iran's Chabahar port with Tehran and Kabul (though Washington’s withdrawal from the Iran nuclear deal and order to reimpose sanctions are threatening these plans). India is planning a Bangladesh, Bhutan, India, Nepal initiative to enhance regional connectivity.

Indonesia, where Modi travelled yesterday, has announced military access for India to Sabang, an island near the Straits of Malacca where Delhi plans to develop a port and economic zone. An Indonesian minister earlier this month said that Jakarta does not want to be controlled by the BRI.

China and India will avoid drawing attention to their regional rivalry by emphasising bilateral projects. After the Wuhan meeting, China's foreign ministry referred to future cooperation "in the construction of connectivity".

Beijing's self-interest will ensure limited support for some of India's initiatives. China will support Pakistan on the Afghanistan peace process and refuse to back down from blocking a proposed UN blacklisting of the militant Jaish-e-Mohammed group's Masood Azhar, who is accused of attacks in India.

However, China's anxiety about the role of the Taliban in Afghanistan and the threat of Islamist militancy spilling over to its restive Xinjiang province will encourage it to promote Indian involvement in Afghanistan (see AFGHANISTAN/INDIA: India's Afghan role will be limited - April 19, 2018).

China and India plan to identify joint projects in Afghanistan in food security, health, education and connectivity.

Trade ties

Beijing is making some concessions in regards to Delhi's complaints about India's 52-billion-dollar deficit on the 84 billion dollars of total trade with China. China announced that it would exempt 28 drugs, including cancer drugs, from import tariffs from May 1. This may not make much difference; India says that drugs face non-tariff barriers such as approval delays in the Chinese market.

$52bn

India’s trade deficit with China

Bilateral trade will remain in China's favour in the medium term, but India will seek greater market access for its services, including information-technology services, as well as pharmaceutical products.

Conversely, Chinese companies will push for India to lower import and security barriers, seeking more market access to increase and diversify their investments in India (see CHINA/INDIA: Chinese investment in India will grow - February 9, 2018). Chinese telecom majors believe that India's new import duties on smartphone components -- designed to encourage Indian manufacturing -- will compel them to hike prices. Beijing objects to Japanese investment in India's north-east, where Delhi's security concerns restrict Chinese firms.

Delhi argues that the proposed 16-country Regional Comprehensive Economic Partnership will encourage China to dump products on the Indian market. India may avoid signing up.

However, India and China may cooperate in petitioning the WTO over unilateral US trade sanctions.

India’s ‘Quad’ ties will be informal for now

Tuesday, February 27, 2018

Delhi is engaging in greater naval cooperation with Washington, Tokyo and Canberra


India's Navy Day celebrations (Reuters/Danish Siddiqui)

India appears to be moving towards a four-country defence and security axis -- ‘the Quad’ -- with the United States, Japan and Australia. The chiefs of the four countries' navies shared a panel in Delhi in January, with the discussion focusing on Chinese activities across a region that Washington now describes as the ‘Indo-Pacific’.

What next

India, the United States, Japan and Australia are likely to meet more regularly over the next one or two years to discuss defence needs and naval interoperability, and the countries (possibly excepting Australia) will engage in large-scale naval exercises. However, the Quad is unlikely in the short term to evolve into a formal defence coalition; India would push for it to do so only if it perceived an increased military threat from China.

Subsidiary Impacts

- Russia will continue to be a key arms supplier to India even as Delhi deepens defence relations with Washington.
- Former Foreign Secretary Subrahmanyam Jaishankar will likely become a special envoy to China.
- Australia and Japan will sign an agreement for their militaries to conduct joint drills in each other’s countries.
- Further US ‘freedom of navigation’ operations in the South China Sea would antagonise Beijing.

Analysis

In November 2017, officials from India, the United States, Japan and Australia met on the sidelines of the East Asia summit in Manila to discuss common concerns regarding the Indo-Pacific.

The four-sided meeting revived interest in the Quadrilateral Security Dialogue or 'Quad': a concept in the making since 2006, when it was proposed by Japan's Shinzo Abe as he pressed his credentials to be prime minister.

Abe's interest in such a grouping developed after the 2004 Indian Ocean tsunami, when the four countries' navies closely cooperated.

Naval cooperation

'Malabar' naval exercises have been held every year since 2002, although India and the United States began their joint drills in 1992. In his first term as prime minister (2006-07), Abe was keen for Japan to join and in 2007, Japan, Australia and Singapore took part. Some Indian officials regarded the group as a 'loose defence council'. Chinese spokespersons were quick to call it an 'Asian NATO' and dispatched formal protest notes.

In India, domestic opposition led by leftist parties in parliament as well as key members of the then-ruling Congress party drained any enthusiasm for an anti-Chinese coalition. The focus turned to strengthening bilateral ties with the United States and Japan respectively.

Canberra's concerns about antagonising Beijing led to Australia stepping aside from the group after 2007, but Delhi and Washington continued to conduct naval exercises and Japan became a permanent partner in 2015 (see ASIA: Geopolitics will heat up in the Indian Ocean - January 4, 2016).

Australia, in the short term at least, may be excluded from rejoining the drills. Australian diplomats in Delhi have lobbied hard to join Malabar 2018, but the Indian government remains unmoved. Many Indian officials in the Ministry of External Affairs (MEA) were in post when Australia withdrew from the exercises and were not impressed by the decision.

> Australia's exclusion from Malabar exercises may continue

The naval exercises have helped the Indian Navy (IN) to build a case for further modernisation, and it will call for greater expenditure despite Defence Minister Nirmala Sitharaman's caution regarding large outlays. The IN aims to expand its fleet to 200 functional naval platforms by 2027, from 137 currently.

The drills also enable the countries involved to understand better each other's platforms and performance levels, increasing the prospects for interoperability. Another incentive for Japan (and Australia) to participate is that it allows them to learn from India's growing professionalism in regional evacuation operations; the IN is developing a reputation as a reliable 'first responder' in the Indian Ocean.

However, IN officials suggest that the Quad concept adds little of practical value to existing arrangements. The IN has not yet received any order to step up defence ties with members of the Quad outside the Malabar exercises.

Canberra may hold back from committing to the Quad if it continues to be excluded from the Malabar exercises, effectively undermining the concept.

Anti-Chinese alliance?

Some Indian diplomats believe the country should be open to an anti-Chinese alliance in the maritime domain and that the Quad can be a conduit to develop regional infrastructural projects to rival China's Belt and Road Initiative (BRI).

However, there are doubts within the MEA about the strategic wisdom of the Quad, with successive foreign secretaries expressing caution (the foreign secretary advises the external affairs minister and is the principal diplomat for foreign relations).

> India will not want to antagonise China

Jaishankar, who retired as foreign secretary at the end of January, believed that India should take a tough stance on China, especially during the two countries' 73-day standoff at their tripoint with Bhutan in mid-2017 (see INDIA/CHINA: Standoff will simmer until it snows - August 9, 2017).

The spat on the Doklam plateau, which began over Chinese attempts to build a road, was never likely to give rise to open conflict, but it raised serious concerns among China experts in the MEA.

Nevertheless, Jaishankar was wary of provoking Beijing, which the Quad would do if it became a formal defence coalition.

The new foreign secretary, Vijay Gokhale, is likely to follow Jaishankar's line. The MEA will push for the Quad to remain a forum for dialogue, while India continues to reject US suggestions that Delhi and Washington conduct joint patrols in the Indo-Pacific.

Reports last week quoted a senior US official suggesting that the Quad members were planning an infrastructure scheme that could be an alternative, though not a rival, to the BRI; India and Japan have already announced plans for an 'Asia Africa Growth Corridor' (see ASIA: China's rise will drive India-Japan cooperation - November 8, 2017).

Details are yet to emerge. Even if they do, the new project is unlikely to match the scale of the BRI and may end up complementing Beijing's scheme rather than offering direct competition.

Quad prospects

India would press for the informal diplomatic enclave provided by the Quad to become a more concrete defence alliance only if it feels directly imperiled by Chinese expansion.

> Delhi will push for a stronger Quad only if it feels threatened

Beijing inaugurated its first overseas military base in Djibouti in mid-2017.

India fears that China may be establishing a military presence in and around South Asia. Delhi protested when a Chinese submarine docked at Colombo, Sri Lanka, in 2014. It would also resent any militarisation near the Gwadar, a key port in the China-Pakistan Economic Corridor (see SOUTH ASIA: Ports will be central to alliances - August 24, 2017).

Other members of the Quad are also wary of Chinese military activity in the Indo-Pacific. Japan recently protested when a Chinese submarine entered waters near the disputed Diaoyu/Senkaku islands. China has developed military installations on several islands and reefs in the South China Sea while the United States has led 'freedom of navigation' operations to contest Beijing's claims of maritime jurisdiction in the area.

Delhi would prefer to rebuild ties with Beijing while strengthening relations with its Quad partners.

However, China may choose to rebuild the road in Doklam in the coming summer months or, less likely, take territory in Arunachal Pradesh state (which Beijing regards as South Tibet) or Ladakh in Jammu and Kashmir state. Any such actions would be regarded as a violation of India's territorial integrity and could significantly change the Quad equation.

Oxford Analytica

Prospects for the global economy to end-2018

Friday, June 1, 2018

Policy and trade trends, and geopolitical risks are diverging across the world


Employees work behind a globe (Reuters/Vivek Prakash)

The world economy is expected to grow by around 4% this year, slightly higher than expected six months ago. Yet this is likely to be the peak of this cycle.

What next

Growth looks set to ease in 2019 but the likelihood of a global recession is low. Nevertheless, concerns will persist about trade, the scope of monetary policy to respond to rising financial market instability and the lack of potential for fiscal policy to meet rising needs for structural reform. Against this backdrop, even a mild economic shock could lead to a more prolonged -- if shallower -- downturn than seen in 2008-09.

Strategic summary

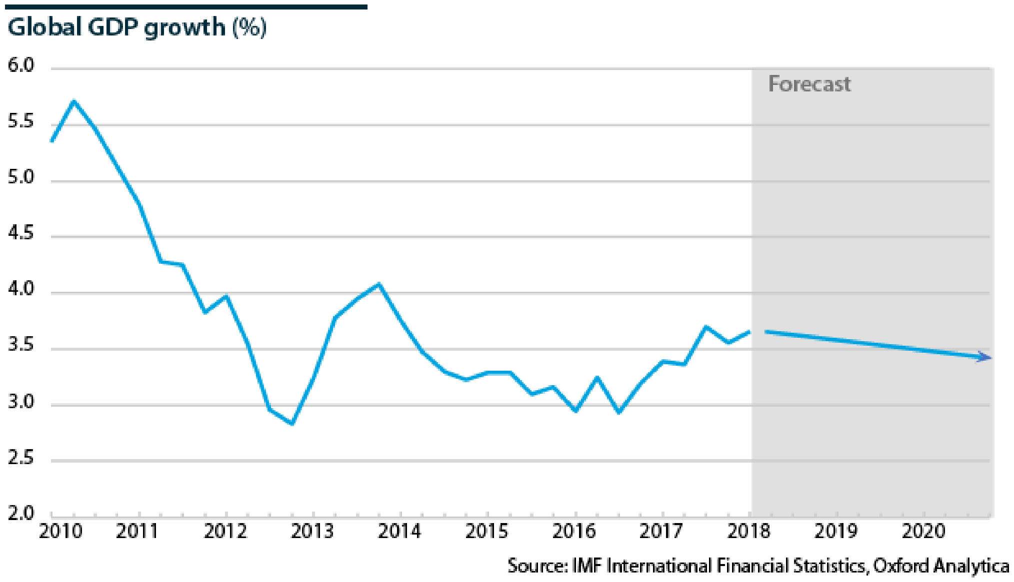
- The combination of OPEC supply decisions, Iran-World relations, supply shocks and US output will direct the oil price in the rest of 2018.
- The US-China trade truce is fragile, as is the renegotiation of the North American Free Trade agreement and US-EU relations.
- ECB monetary policy decisions are delicately poised and will determine the divergence with US policy, influencing the dollar's trajectory.
- Monetary conditions are tightening, implying that advanced and emerging markets that have built up dangerous debt levels will be at risk.

Analysis

Global growth has momentum, but risks from trade disputes, geopolitics and financial markets are high.

Tax cuts and higher spending have modestly boosted US activity, but euro-area growth is slowing. US rates are rising, offsetting US political risks and strengthening the dollar but pressuring financial markets across the world. Fuel prices have risen by more than 20% this year, boosting the growth prospects of net exporters but increasing inflation and curbing growth in net importers.

More promisingly, there are signs of the long-awaited productivity pick up.



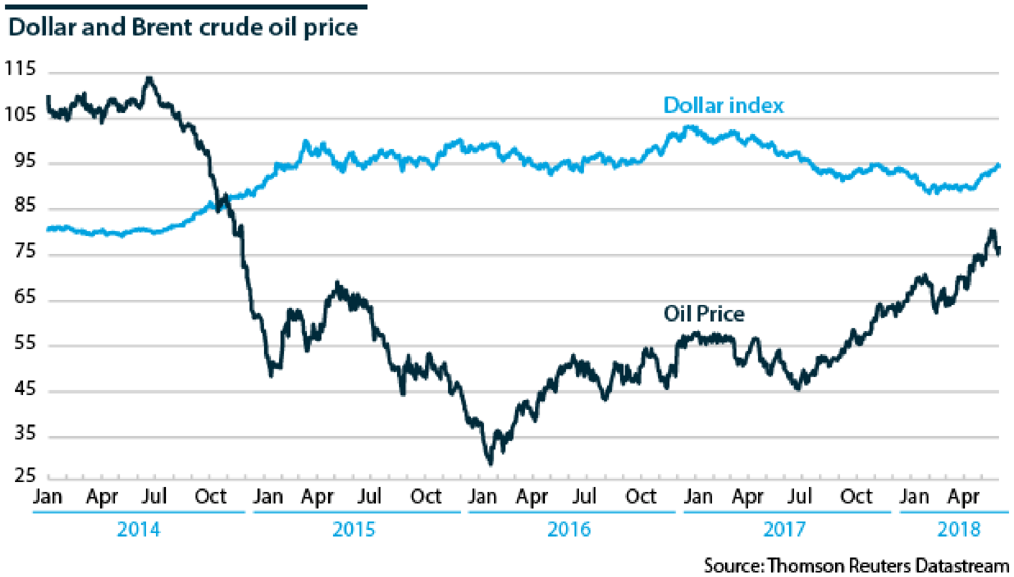
Commodities constraints

Oil is trading at 75-80 dollars per barrel, against last year's average of 55 dollars. Unexpected delays to bringing production onstream have damaged the belief that the flexibility of US shale to increase output in relatively short order would cap prices closer to 50 dollars per barrel than 100 dollars. Prices for delivery more than a year out are also higher.

The re-imposition of sanctions on Iran by the United States and many of the countries it does business with has tightened the supply strains that the OPEC output cuts introduced.

Reflecting these constraints, the IMF estimates that supply restrictions account for 80% of the price rise since September. However, the New York Federal Reserve Oil Price Dynamics monitor argues that 50% is due to demand, which has risen sharply since 2010-2013. Higher prices are expected to reduce demand; the International Energy Agency has cut its global oil demand forecast for this year by 100,000 barrels per day (b/d) to 1.4 million b/d.

Supply strains will persist, but the combination of weaker demand and higher US output will keep oil prices at 60-90 dollars per barrel.



OPEC is the wildcard. Its members' stocks are at their lowest in three years. Russia and Saudi Arabia have discussed relaxing the exiting1.8 million b/d cuts by 1.0 m/d. The group meets in Vienna on June 22.

Trade trajectory tinged with tension

Concerns eased rather than disappeared after US Treasury Secretary Steven Mnuchin announced that the goods trade dispute with China is "on hold" (see INTERNATIONAL: US/China self-sufficiency is dangerous - April 4, 2018).

Re-heightening tensions and sharply raising the risk of retaliation, the United States will impose a 25% tariff on its imports of steel and 10% on its imports of aluminium from the EU, Canada and Mexico from June 1.

Trade worries include:

- the highly uncertain fate of the renegotiation of the North American Free Trade Agreement (NAFTA);
- growing tensions between the EU and the United States following the US withdrawal from the Iran nuclear deal; and
- the US Commerce Department's Section 232 (national security threat) investigation into auto imports, given the centrality of automobiles and their related industries to both NAFTA and US-EU trade.

4.4%

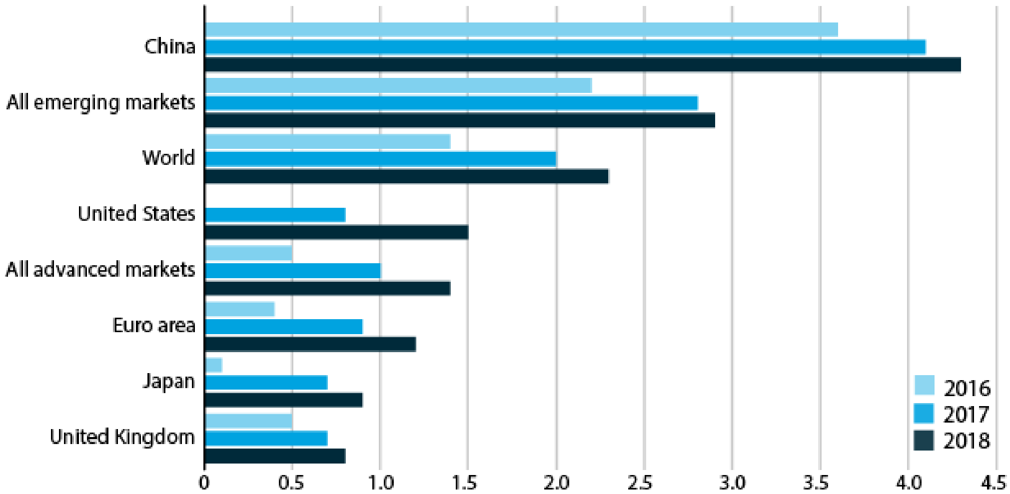
WTO forecast of export volume growth in 2018

Nonetheless, trade is growing steadily. The WTO estimates that global goods export volumes will grow by 4.4% this year, little changed from 4.7% last year before slowing to 4.0% in 2019. Using forward-looking indicators such as orders and transportation trends to assess conditions, the WTO trade outlook indicator forecasts a slight softening in the April-June quarter.

Productivity picking up

Productivity is picking up in the United States. Non-farm output per hour rose by 1.3% year-on-year in January-March up from 1% in 2017, encouraging hopes of a global revival. US GDP could expand by close to 3.0% this year, with output per hour growing by 1.5%, closer to its 1985-2015 level (see INTERNATIONAL: 2018 is key for a productivity rebound - February 5, 2018).

Productivity growth (%, measured as output per employee)



Source: Conference Board Total Economy Database

Higher fuel prices should help stimulate mining investment, raising growth prospects in commodity-exporting emerging markets, especially in Latin America, Sub-Saharan Africa and Russia. Higher raw material costs will lower profit margins in some sectors, but financing remains historically cheap globally despite higher US rates.

The most substantial US tax reform for 30 years will free cash for investment by lowering US firms' tax bills and incentivising investment, although some incentives will not be available until the 2020s. Solid growth will also increase the pressure on firms to invest although action will vary. Many firms may be cautious, with money going into research and development rather than capital investment.

The combination of robust demand and higher investment, including into new technologies, sets the stage for productivity gains around the world.

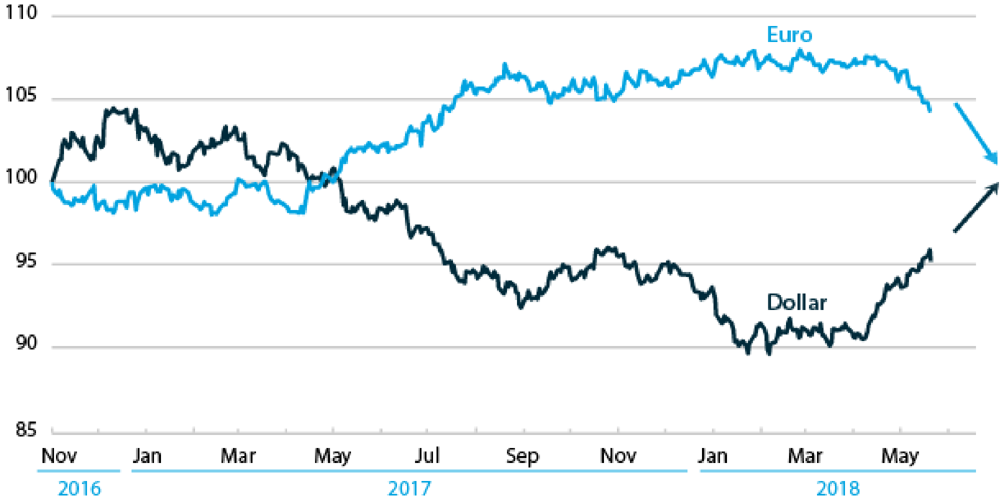
Financial fragility

Monetary conditions are tightening.

The Federal Reserve (Fed) is reducing its balance sheet and the US ten-year benchmark yield is stable near 3.0% after averaging 2.3% last year. Since mid-April, the trade-weighted dollar has strengthened by 5%. The euro carries 60% weight in the dollar basket.

Over the same period, easing euro-area activity and rising risks in Italy have dragged the euro 6% lower against the dollar. The divergence is likely to continue.

Trade weighted dollar and euro rebased to 100 at 10/11/2016



Source: Thomson Reuters Datastream

Dollar strength pressures economies dependent on dollar financing. Turkey runs a large external deficit and owes more than 250 billion dollars in foreign currency, largely in dollars. The lira has lost nearly 20% of its value to the dollar this year see TURKEY: Low monetary credibility keeps strain on lira - May 30, 2018). Payments on the local currency debts of more than 150 billion dollars will also be costlier as the policy rate is 16.5%, double a year ago.

Other countries could be forced to raises rates faster than would be ideal for activity as emerging markets debt accounts for nearly 200% of GDP, up from less than 120% ten years earlier. Advanced markets debt accounts for 270% of GDP, from less than 250% over the same period.

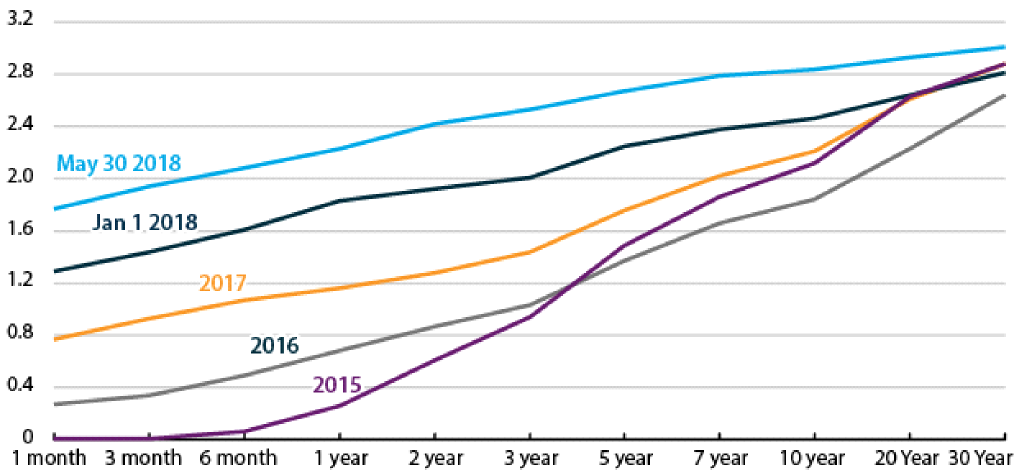
High yield but lower quality bonds are also vulnerable. Some US stock market sectors are overvalued, raising the risk of a sudden slide. The S&P 500 index is 33% higher than the start of 2015 but telecommunications and information technology stocks in the index are 62% higher.

Crypto assets will attract increasing attention. The low leverage of the cryptocurrency market and the low correlation with the mainstream asset classes means the near-term risk of a bitcoin-induced broader sell-off is remote. However, the asset class will expand in use and value will increase the risks and the need for coordinated regulation (see INTERNATIONAL: Cryptocurrency regulations will vary - May 10, 2018).

Advanced countries -- United States

Expectations of US inflation feeding through to wages and rate rises have driven up the dollar and the ten-year bond yield, and the yield curve is flattening, However, there is little evidence of higher wages. Core inflation, excluding food and energy, is 2.1% and private hourly wages rose by 2.6% year-on-year in March and April, keeping real wage increases modest.

US yield curve: this week compared to 2017, 2016 and 2015



Source: US Treasury

Underlying this is the high number of prime-working-age people that the workforce has not reabsorbed since 2008-09. If job growth continues at the current rate, it could take two-and-a-half years to regain the same ratio of workers to population as pre-downturn levels.

The latest Fed meeting suggests that the committee would be happy for inflation to "modestly overshoot", seeing underlying inflation as little changed and the risks as balanced. The Fed is expected to raise rates by 25 basis points in June. One more increase between July and December is looking as likely as two.

1 or 2

Fed rate rises expected in the second half of 2018

This would be consistent with GDP growth averaging 3.0%, slowing towards 1.5-2.0% over the medium term. The budget boost will fade but pressure from retiring baby boomers will leave little fiscal room for manoeuvre and a higher risk of crisis (see UNITED STATES: Budget sustainability questions rise - April 12, 2018).

US monetary and fiscal policy trends are diverging. Fiscal policy is expansionary, although one caveat is that only 13% of the 1.5 trillion-dollar infrastructure plan is federally funded. State, local and private sources are unlikely to provide anywhere near 1.3 trillion dollars.

Euro-area

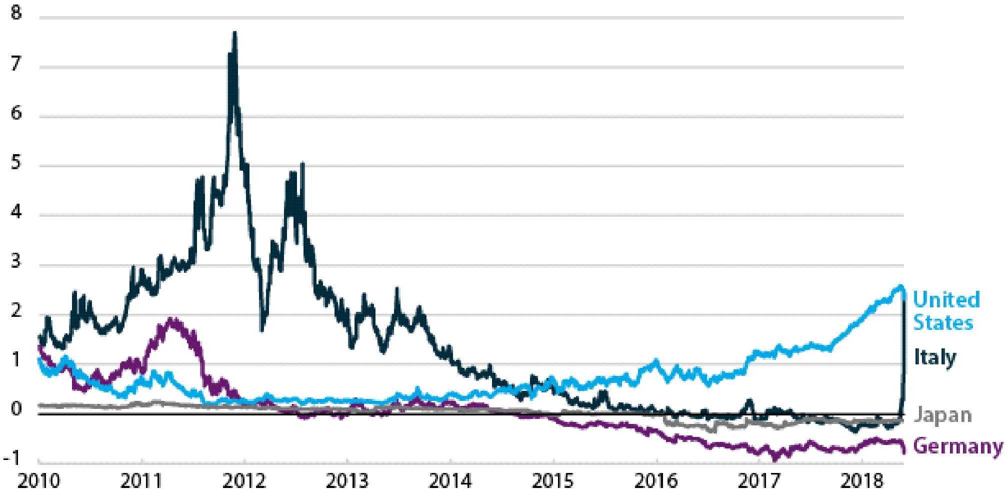
One of the most important drivers of the dollar will be the degree to which global growth weakens relative to US growth. Euro-area GDP grew by 0.4% quarter-on-quarter in January-March, down from 0.7% in July-December 2017.

Moreover, political risk is rising in Italy after the victory of the anti-establishment Five Star Movement and the far-right League in the March 4 general election (see ITALY: Fresh elections in September are likely - May 29, 2018).

Financial markets were calm between the election and the announcement of the government's programme on May 19-20 but likely inability of the coalition to form a sustainable government is taking its toll. A leaked coalition agreement outlines plans to ask the ECB to write off 250 billion euros (295 billion dollars) of debt and says that if there is "popular will" it would seek to leave the euro.

On May 29, the spread between Italian and German two-year yields rose by more than in the 2011-12 sovereign debt crisis. While the spread has eased, borrowing costs will remain higher than from January to mid-May (see ITALY: Fragility is Europe’s biggest risk into 2018 - September 5, 2017.

Two year bond yields (%)



Source: Thomson Reuters Datastream

Policy

After September, the ECB is due to stop buying 30 billion euros of sovereign bonds each month. Supporting this, economic activity still has solid momentum even though growth has slowed and while inflation is below target, higher energy prices are applying pressure. However, consumer activity is already weakening and lower real wages could intensify this.

The ECB is likely to reduce the size of the purchases but extend them. If activity continues to slow, core inflation remains far below target and Italian uncertainty remains high, this becomes even more likely. ECB President Mario Draghi's cautious comments confirm that an abrupt end is unlikely. Another option is to stop the purchases but to raise rates very slowly over the medium term.

> Europe's monetary outlook is murkier than the United States'

In contrast to the United States, fiscal policy is neutral. Balances are better following years of austerity but there is little appetite for expansion. The EU 2021-27 budget shifts spending towards migration, border control, defence and digitalisation.

GDP growth of 2.3% in 2017 may be the peak but 2018 growth should hold up above 2%, slowing towards 1.0-1.5% from 2019-20.

Japan

Expansionary policy and robust global growth are not stimulating investment and consumption is disappointing. Annualised GDP contracted in January-March and investment fell the most since 2015.

Two temporary factors contributed: poor weather and less stock building. Inventories could rebound, facilitating a smaller GDP decline or a small increase in April-June. However, with trend growth entrenched at 1% or less, recession will never be far away.

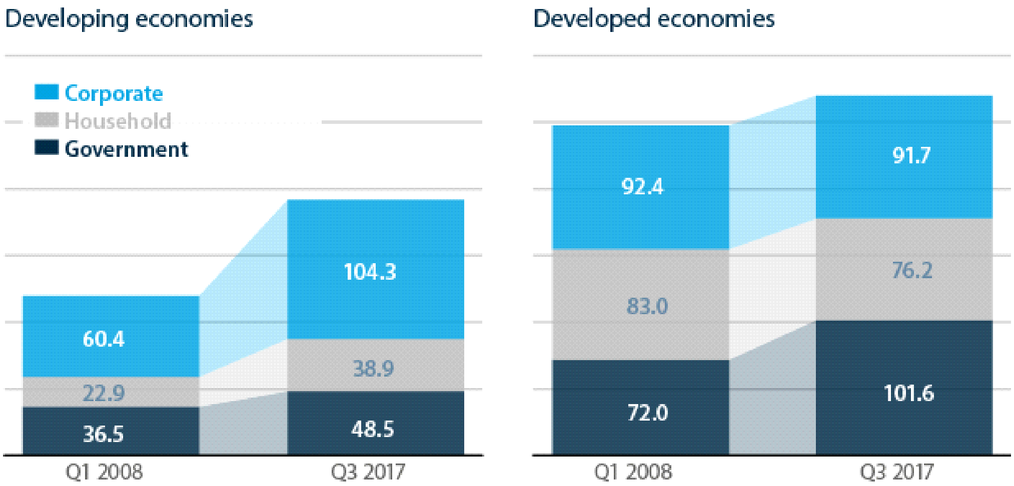
Having started his second five-year term in April, Governor Haruhiko Kuroda no longer expects inflation to reach 2% by 2020. The asset purchase programme could continue for his whole term to 2023.

Emerging markets

Trends influencing the outlook include the following:

- Costlier oil boosting growth prospects and budgets in net exporters but dampening growth prospects, reducing real incomes, and widening budget and trade deficits in net importers.
- Higher US rates increasing worries among investors about the ability of dollar indebted emerging markets to pay debts; the IMF has already helped Argentina avoid default.
- China's prioritising of growth at close to 6.5% to 2020 should help world trade maintain momentum.

Total debt as a share of GDP (%)



Source: Bank for International Settlements

China

Having exceeded the target in January-March, growth is set to slow to 6.5% in the rest of the year (see CHINA: Sustainable growth initiatives will dampen GDP - January 19, 2018).

The President's Work Report at the five-yearly party Congress in October focused on improving the quality of growth and lowering inequality through reducing overcapacity, deleveraging, innovation and expanding social security.

China's leadership has recommitted to its 2010 centenary goal of doubling aggregate and per capita GDP by 2020, requiring annual growth of at least 6.3%.

Relegating the sustainability agenda is disappointing but reflects rising risks. Trade risks have not disappeared. Intellectual property transfer is a concern. Goods trade also remains at risk. More manufacturing self-sufficiency is crucial to the decades-long shift of US policy towards autarky.

Nor have risks from a sharper property slowdown disappeared -- housing investment rose by 10.2% year-on-year in April, but sales by floor area fell 4.1%. Sharply lower prices would dampen consumer spending.

In the 2020s, GDP growth will slow to 5-6% and efforts to curb debts and pollution will be ramped up. However, the cost of curbing them will also have risen, which could take growth below 5%.

India

GDP growth picked up in January-March 2018, but the higher oil price is increasing price pressures, curbing monetary scope and widening the budget and external deficits (see INDIA: Higher oil prices hit economic prospects - March 1, 2018). Price pressures and financial volatility could force the Reserve Bank of India to cut rates sooner than would be ideal.

This will make it harder for authorities to achieve their target of 8% growth from April 2018 to March 2019, and will make it difficult for the government to improve its economic credibility before the 2019 general elections. In the medium-term, India's commitment to digitalising its economy should pay off, ensuring that, combined with other favourable factors, it grows above 7%.

Russia

President Vladimir Putin is targeting GDP growth above the global average as he begins his final six-year term. Higher commodity prices might fuel 2018 growth of more than 2% for the first time since 2012, but this will far short of estimated global growth close to 4%. Low investment and unfavourable demographics make 4% medium-term growth a pipe dream.

Brazil

GDP growth is picking up, possibly to 3% in 2018 from 1% last year. However, this could be the peak. Whoever wins October's presidential election is not expected to have a legislative majority, leaving the next government without a reform mandate.