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SUMMARY OF DISCUSSIONS

INDIA: GROWTH IN A CHANGING GLOBAL PARADIGM

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The India growth story is punctuated by continued volatility. Patches of growth, both sectoral and geographic, are brought down by depressed consumer appetite and a private sector that is, for the moment, unwilling to lead growth through investment. The government's efforts to expand investment have begun to create some impact, but many initiatives will yield results only in the long run. Added to all of this is a volatile, transforming world, marked by China's stumbles, the threat of a US interest rate hike, and most recently by Brexit.

BREXIT: THE DIVORCE OF OUR TIME

Britain's frustration with Brussels had been growing for years, but the *real* trigger for Brexit was the migrant issue, which politicians fuelled by doling out misinformation. Going forward, the UK will need to negotiate a new trade-and-economic-cooperation agreement with Europe – and the current mood suggests that the process will be far from easy. For now, the financial and currency markets seem to have got past their initial worries, but **the true impact of this event will become clear over the next 2-3 years**. It will play out through three main channels – economic, political and strategic. In the lead up to Britain's formal exit, markets will be volatile, currencies will fluctuate and bond markets will go haywire.

The impact: (1) Economic

Brexit's economic impact will come in the form of **slower British and European growth, weaker world trade and investment, and depressed market sentiment**, which could **spill over to emerging markets**. 45% of the UK's exports, amounting to 13% of its GDP, currently go to the EU. On the reverse side, 15% of European exports (and a smaller, 3% share of GDP) go to Britain, with countries like Germany, the Netherlands and Cyprus being the most directly affected. Newly erected tariff barriers could endanger a big part of this two-way trade. According to World Bank estimates, the ripple effect would **bring down world trade growth by 30-50 basis points**. The IMF will soon release its latest global economic growth estimates, but these are also likely to be revised downwards. Moreover, Brexit could force companies like Nissan – which target half of their UK production to Europe – to relocate to the Continent. The **City of London**, the world's second most important financial centre, accounting for 23% of British output, could **shrivel to a fraction of its size** if financial institutions relocate to Paris or Frankfurt.

The pound fell to a 30-year low immediately after the vote, while the Euro, after dropping initially, recovered partially. (The Renminbi lost 1%, but held its ground after that, thus preventing a 'devaluation contagion' from spreading through the markets.) **USD 2 trillion of investor wealth was wiped out**, though some of these losses were reversed by **indications from the US Fed that it would delay any rate hike**. Also holding markets aloft were a **promise by the Bank of England to inject up to 250 billion pounds via bond purchases and a Fed commitment to 'chip in' when required through currency swaps**. Over the next 18 months, however, the **pound is likely to fall from current levels of 1.3 USD to 1.2 USD**.

For emerging markets like India, a **strengthening dollar might support export growth, but the net impact will be negative because it will make debt servicing more expensive**. Of India's USD 460 billion in outstanding debt, USD 85 billion is short-term debt and a further USD 120 billion will come up for maturation in the next 12 months – adding up to a total of

USD 206-207 billion, compared to India's currency reserves of USD 360 billion. Should the Rupee lose another 4-5% in all this turmoil, it could create serious debt servicing issues. All in all,, Brexit is *not* some faraway event that impacts only the British and the Europeans, but emerging markets as well.

(2) Political

Brexit's near-term fallout will be felt most immediately within the UK, where it has left a political vacuum in its wake. With Scotland and Northern Ireland both voting to stay in the EU, their relationship with the Union has become even more complicated. Scotland might hold a second referendum for independence and *could* vote to leave the UK this time. Northern Ireland, whose peace process was made possible by the open border with Ireland, may see renewed tensions if the free movement of people and goods is stopped. **At the same time, Brexit will have a wider impact on American and European politics.** In Europe, it is likely to hasten the move, already underway, of fringe parties occupying the centre of politics. The political debate today has moved away from the old Left-versus-Right schism, towards one that is mainly about libertarianism on the one hand, and on the other, a set of strongly nationalistic, anti-globalisation beliefs that have brought together the extreme Right and the extreme Left. At the very least, parties like the Front National, the Freedom Party, Podemos and Law and Justice will come to exert greater influence over policy formulation. Britain's exit could trigger similar exits across Europe in the fullness of time. Elections are due soon in France and the Netherlands, and their results could, in the extreme, end up splintering the EU.

(3) Strategic

Perhaps the truest marker of the European project's success is that it has ensured more than **70 years of peace on the continent.** Through a process of gradual enlargement, a strong, united Europe, built around the EEC – and later the EU – has brought political and economic stability across borders, and acted as an effective deterrent to war. **Going forward, however, a UK that is outside Europe would greatly weakens the region's global credibility** – whether in terms of defence capability or in negotiating trade deals. Simply put, the European dream of ever-closer union is now history. Moreover, for decades, **British military leadership has played a vital role in European security.** In the Baltics, it is one of only two countries – the other being France – that provided an effective security umbrella. In the years ahead, a Britain that is outside the European project will leave its neighbours weakened. Intelligence sharing will suffer, and plans for a common standing army for Europe will have to be shelved. In the off chance of Grexit occurring, Greece could drift towards Russia, with which it shares a 2,000-year-old relationship via the Orthodox Church. If *that* happens, there could well be a Russian fleet in the Aegean, just off Southern Europe.

THE GLOBAL OUTLOOK

Nobel Prize-winning economist Simon Kuznets once said that there are four types of countries: developed, undeveloped, Japan, and Argentina. Today, unfortunately, **much of the industrial world is starting to look like Japan, with low growth and price deflation becoming the norm.** Central banks have tried everything possible to change this – pumping billions into their economies – but the response has not been equal to the effort. Interest rates are negative in most major economies, and Switzerland recently issued a 50-year negative rate bond. This suggests that there is no confidence in the markets that Europe will grow anytime in the next 10 years. Japan, meanwhile, has been pump-priming to try to stir *some* kind of growth, and Prime Minister Abe has repeatedly put off a planned hike in the consumption tax. **On the whole, the World Bank expects global growth to be 2.4% in 2016, while the**

IMF's current 3.1% forecast is likely to come down further, given how consistently it has been revising these numbers downwards lately.

America and Europe: a Slow Recovery

The US recovery is slow but remains fundamentally intact. Job creation has been robust for much of the last year – though there have been some hiccups recently – and salaries and payroll continue to rise. Much of America's growth, though, is being **driven by private consumption rather than investment** – which has fallen 5-6% in the last three quarters. Moreover, **Janet Yellen has for the first time clearly stated that the time has come to reverse the US interest-rate cycle.** Thus, a **25bp hike** in the Federal Funds Rate is expected, at the very latest, by Q4. Markets may have already discounted the event, but it is equally possible that they have not done so fully. Should that be the case, it would cause money parked in emerging markets to fly back to the safety of the dollar, impacting stock and bond markets as well as exchange rates. However, the biggest worry for the US is the **possibility, admittedly slim, of Donald Trump winning the presidency** – which, given his anti-globalisation beliefs, would have a profound impact on trade flows, and global and regional deals like NAFTA and the TPP. His anti-immigration and anti-Islam views would also have adverse social implications. A Clinton presidency, by contrast, would be much of the same as the last 8 years, though perhaps less isolationist than President Obama's.

For Europe, the base case is one where the EU survives as a single entity, but the continent follows a tenuous path of growth and economic recovery. Owing to its stronger trade links with emerging markets, Europe is more exposed than America to EM risks. However, Europe's biggest problem at the moment stems from Italian banks, which are straddled with 360 billion Euros worth of bad debt. EU rules prevent member governments from recapitalising their banks – something that would be regarded as a subsidy. Instead, bondholders are required to take a hair cut in such cases. However, given that the bulk of Italian bonds are not held by big funds or HNIs, but rather, by small investors, this is a very serious political issue. It is no surprise that European bank stocks are down, in some cases, by 50-90%. Were Italian banks to collapse, it would build support for parties like the 5-Star Movement, which are campaigning against the single currency. An Italian exit, in turn, would almost certainly finish off the Euro. Thus, while countries like Germany believe strongly in austerity, the likeliest outcome of the current stalemate is some kind of side deal that keeps Italian banks, and therefore the Euro, afloat.

Trouble in the Middle Kingdom

Between July 2015 and February 2016, close to USD 16.2 trillion was wiped out from global bond and equity markets. Since then, there has been a marked recovery, primarily because of a commitment from President Xi that China, which had been 'exporting' its currency devaluation for months, would do what it must to hold up the Renminbi's value. Subsequently, China has **clamped down on capital outflows and has been pump-priming the economy**, and as a result, global commodity prices, bond markets and equities have started to recover. However, this is clearly not sustainable, and at some point China will have to unwind. By most accounts, Chinese growth is slowing: many estimates put it at well below the official ~6.5% rates, and one study, which looks at demand for 60-odd industrial products, indicates that growth may have dropped off entirely. **China's big problem today is debt: from 145% of GDP in 2008, this has swelled to 250% – compared to India's 110%.** Worryingly, most of this debt is not sovereign, but rather **quasi-sovereign**: non-performing loans taken by PSUs. Its debt will continue to grow, and eventually, it will have to explode. **Markets have not fully factored in this 'China risk', assuming that it will simply go**

away. The economic impact of a 1% drop in Chinese growth ranges from a marginal 0.1% in Europe and America, to as much as 0.5% in Japan.

EMs in trouble

In the last 2-3 years, emerging market fortunes have varied sharply: while commodity exporters have suffered, commodity importers have gained. **EMs as a group, however, face a very big, common problem: in the last decade, their external debt has grown four-fold.** Since most of this debt is dollar-denominated, **any currency depreciation will leave debtors worse off, making it harder to service their loans.** Broadly, there are three categories of EMs today, with some overlap between them. The first, which includes Singapore, South Korea and Taiwan, have strong exposure to China, and will be the worst hit in the event of a Chinese slowdown. The second group – high credit-growth economies like Malaysia, Thailand, Korea – are at risk of falling into a debt trap. Finally, countries like India and Russia have perhaps already seen the worst of the down-cycle. Even as they, too, face debt-related risks, they are better placed to manage a global financial ‘bust’.

THE INDIA OUTLOOK

India’s GDP data paint a somewhat rosy picture of growth. Last year, growth was officially 7.6%, but for industry, today’s environment *feels* the way 5% did a few years ago. In many ways, the new GDP methodology is more ‘correct’ than the old series – it is in line with global practices, and employs a more extensive data set that, for example, better captures SME performance. However, there is some contention about India’s use of price deflators. With wholesale price inflation at zero or thereabouts, the price deflator for manufactured goods is very low, which means that the ‘correction’ applied to nominal growth is less than it otherwise would be. The new methodology shifts many activities that used to count as services into the manufacturing sector, which uses a lower, WPI-based deflator. Correcting for this yields lower growth rates. Supporting this view, even as the demand for consumer durables and cars has perked up, **industrial growth remains sluggish.** With inflation and growth both weak, **capacity utilisation rates are low, limiting the demand for capacity creation.**

India’s other potential worry is its national debt, estimated at 110% of GDP. **The country also faces a major credit quandary.** Five years ago, *all* segments of credit were growing at 20-25% rates. Today, the overall growth rate is down to below 10%, but while consumer credit is back to 20% levels, industrial credit growth is below 2%, and for services, it is at about 10%. Banks now seem to believe that they should have lower exposure to the industrial/infrastructure sector, and are therefore diversifying their portfolios into retail and services.

Investment: not as bad as it looks

Many economic analysts rue the fact that private investment is currently ‘not taking place’. Yet, while there is no doubt that investment activity *is* subdued, **an in-depth analysis by IMA reveals that the situation is not as bad as many believe.**

Broadly, there are **five main levers of investment – tax, markets, inflation, NPAs, and industrial support** – and on all five counts, businesses in India face huge pressures. The first and most important factor is **industrial support** – which is a combination of infrastructure and other ease-of-doing-business parameters. Compliance issues and harassment are still a reality, and reform action at the provincial level is woefully short. Even as the Centre might push through important reforms, ultimately, it is the state and local bureaucracies that govern much of the ‘economic life’ of businesses. *They* are the ones with the power to either help

businesses function efficiently, or to get in the way. Moreover, productivity levels – a rough proxy for the quality of industrial support – remain low. According to 2013 Eurostat estimates, even in PPP\$ terms, Indian workers have lower productivity per hour (USD 3.4) than Thailand (USD 9), Malaysia (USD 17) and South Korea (USD 33). This explains why, in recent years, many Indian companies, from the very largest down to mid-sized ones, have been investing more abroad than at home. Unless the situation is corrected, there could be a wave of outbound investment in the next few years, with more and more companies setting up manufacturing bases abroad and then – taking advantage of low tariffs – exporting their goods back to India. This is why, for instance, it is *Indian companies* that are lobbying hardest for a comprehensive trade treaty with Thailand.

Tax-related issues – in terms of both direct and indirect taxation – are also a concern that will not end in a hurry. Today, the general perception among investors is that India's tax regime remains unpredictable, with the Vodafone case and other such instances looming large in their thoughts.

In terms of inflation, the problem today is that it may be *too low* – practically 0% for industrial products. Empirically, when prices are rising at less than 5% a year, capacity utilisation rates fall – today, they are at ~70%, well below the 80%+ rates of a few years ago. Meanwhile, **financial markets** play an important role in investment decisions, because, when they are subdued (as they are now), it becomes harder to raise either equity or debt, limiting the scope for capital spending. At the same time, a negative wealth effect weighs down on consumption – and eventually, investment – decisions. Finally, the **NPA problem** has left banks starved for cash, compelling them *not* to lend. The clean-up will take years.

Plainly, then, all is not well with the investment climate, but the data also reveal two things very clearly: first, that **investment in the 'boom years' was less stellar than it seemed at the time, and second, that there has been a steady uptick in the last 3-4 years**. Capital spending peaked in 2010-11, but this was partly because 'sticky money' was being siphoned off from government projects and re-routed into real estate and construction. Together, these sectors accounted for 10% of GDP and 50% of capex that year. Since then, with the flow of black money getting curbed, the investment-credit is 'normalising'. This implies that the **current cycle is not as 'depressed' as it looks**. Equally, while *proposed* investments (the value of MoUs signed) have been declining for years, **actual, on-ground investments have been steadily rising for the last four years**. Further, the **'conversion ratio' – actual investment as a share of proposed investment – has surged** from just 1-2% in 2009 to almost 40% now. **Average project sizes are also rising**, from under Rs 1 billion in 2009 to Rs 25 billion today. All of this indicates an improving investment climate, and it also tells us that the 'wild' plans of old, often amounting to nothing, are a thing of the past.

From a longer-term perspective, investment into India, both direct and portfolio, will remain strong. For the last 25 years, the correlation between domestic growth and inbound investments is robust. Specifically, the size of capital flows, as a share of GDP, is approximately equal to the growth differential between India and the G7 countries. Assuming that India continues to grow at ~7%, and the G7 at ~1.5%, one should reasonably expect capital flows to add up to USD 150-200 billion, or 5-6% of GDP a year. In time, assuming that inflation stays low, this should help stabilise the Rupee. Critically, this money will bring with it global technologies and management practices.

In the near term...

The baseline forecast for India is one where economic growth will hover in a 7.5% range for the next 2-3 years. Consumer demand – mainly in urban areas – will receive a boost this fiscal from the implementation of the 7th Pay Commission report and the new OROP (one rank one pension) policy for the armed services. **Rural consumption should also start to perk up in the next 12 months** on the back of a good monsoon and a big increase in rural expenditure. In contrast, India's outbound trade – exports as well as imports – is declining, and unlikely to revive anytime soon. In terms of public finances, the government rightly chose to retain a 3.5% target, even though it was tempted to stray. Interest rates, however, will fall only gradually, first, because the external environment remains volatile, and second, because the new RBI Governor is likely, like his predecessors, to take a cautious line.

Subdued debt and equity markets will continue to influence the real economy, dampening investment flows. Between July 2015 and February 2016, the BSE bond market's capitalisation fell by USD 400 billion. Since then, it has recovered to an extent, but until the market fully stabilises, investment will continue to suffer – and there is a real possibility of short-term outflows driven by a US rate hike. At the same time, foreign remittances – which are equal to half of India's trade deficit, and help finance a large current account deficit – are likely to continue falling, given the declining fortunes of the Gulf economies. **The really big worry for India, though, is its short-term foreign liabilities** – and the potential difficulties it may have in rolling them over. These liabilities now add up to 42% of India's total foreign debt and 57% of its reserves – more precarious even than the pre-Lehman days in 2007, when the ratios stood at 38% and 27% respectively. A rollover issue now would hit India harder than before. The currency would drop sharply, bond yields would spike, and a credit crunch would ensue. With global markets remaining volatile, this makes it imperative for companies to hedge all of their open positions, regardless of the cost.

Reasons for hope...

Within this generally-downbeat environment, there are certain positives to watch. For one, the **Direct Benefit Transfer (DBT) programme** will, by 2019, ensure that 80% of all entitlements and subsidies are directly transferred to the intended recipients. **200 million bank accounts have been opened; banking penetration will soon approach 100%; and 23 new banking licenses – including for payments banks – have been issued in the last year.** All of this will make direct subsidy transfers to the point of consumption (as opposed to production) logistically possible for the first time. Second, the **Mudra micro-lending scheme**, which has already benefited millions, will have a strong social and economic impact at the grassroots level. **A new civil aviation policy** targets 300 million domestic flyers, and 10 million tonnes of air cargo, by 2022 – huge increases over today. Unlike in the past, this government has the **wherewithal to actually pull off ambitious targets** such as these, evident in the way it has tackled the power situation. From a situation where power plants did not have enough coal to run, Coal India is now producing more than can be consumed, and may soon start exporting coal. Finally, **infrastructure spending is up sharply, and at the same time, revenues are increasingly being devolved to the states.** All of these factors will play out strongly in India's favour in the coming 3-5 years.

QUESTIONS AND ANSWERS

On the impact of Digital India:

The impact will be profound, though it is hard to estimate in numbers. Broadly, it will affect two areas. The first is governance. States like Madhya Pradesh, for instance, are fully digitising their land records, which will shift land ownership from presumptive to absolute. More

generally, local and provincial governments will, through a digital platform, be in a position to improve their service delivery, and information flows will improve. Second, digital access will entirely change the way business is conducted in, say, agricultural commodity markets. Farmers will be able to access accurate price data in real time, benefiting them greatly.

On funding availability for Indian start-ups:

There are two sides to the Indian start-up story. The ‘bad’ side is one of capital chasing and then over-valuing a whole lot of unviable businesses. The ‘good’ side of the story is the sheer amount of funding that is taking place. A few years ago, angel networks might fund perhaps 2 investments a month; today, they are ‘buying’ 5 a week. Not all of these are technology companies – in fact, only about half are, of which consumer-Internet firms are not even the majority. Many are doing under-the-radar work that will be interesting to watch in the medium-to-long-term. Most start-ups – perhaps 80% of all companies – will end up dying, but the 20% that succeed will have a massive impact.

WHEN THE WORLD WON'T PRICE CAPITAL

Richard Martin, Managing Director, IMA Asia

Growth is a consequence of several factors, including the price of capital. In the last few years, quantitative easing (QE) has caused central bank balance sheets to explode – from USD 0.5 trillion in 2007 to USD 7 trillion. **With US, European and Japanese interest rates now either at or close to zero, there is a lot of cheap money in the world today; in fact, 25% of the global economy has negative rates.** QE's aim is to lift inflation to ~2% and to make capital cheap enough to force banks to lend, and companies to invest. Even China – where growth is (unofficially) down to 4-6%, but where credit is still growing at 15-16% – is awash in money, and a lot of it is flowing out on account of its 'one belt one road' policy. At the same time, the rich world's rapid ageing has created a demographic 'time bond' that will push retirement funds to look at riskier assets, including EMs like India. All of this has major spill over effects on the rest of the world, with **capital desperately searching for yield.** In bits and pieces, businesses are taking advantage of this situation, with even small firms starting to issue negative-rate bonds. For emerging market companies, though, a key question to ask is, *'How do we get hold of this money?'*

A GLOBAL SLUMP...

Either of two things – a bout of inflation, or a sharp pick-up in growth – would help correct these imbalances. Regrettably, neither seems to be happening. While US inflation has perked up mildly, there is no sign of it in either Japan or the Euro area. So grim is the situation that economists are starting to debate the merits of shifting from inflation-targeting to targeting nominal GDP instead. Some also believe that the 'natural rate of interest' that balances demand and supply has come down from 3.5% earlier to 1.5% today. Japan is on the verge of going down the 'helicopter money' route – which effectively means printing huge sums of money and allowing the government to run up debt on a massive scale. Nor has there been any significant lift in bank lending or corporate investment, and central banks clearly no longer have the 'firepower' – in the form of high-enough policy rates – to deal with a renewed downturn. **Meanwhile, world GDP growth has dropped from an earlier 4-5% to barely 3%, and global trade growth has crashed in volume terms,** from double the rate of economic growth, to barely level. This is symptomatic of an oversupply of everything – goods, services, and savings. For companies, it means that, with little or no visibility down the road, planning horizons are getting ever shorter.

...THAT HINGES ON TWO SETS OF PROBLEMS...

The advanced economies face a very different set of problems from their emerging market (EM) peers. 'Rich world' growth is down from around 3% in the pre-GFC years to below 2%, and a deflationary spiral has taken root. Underlying these problems are three broad factors: a **slowdown in productivity growth, poor demographics** (the 'baby boomer' generation is now retiring *en masse*), and a **failure to understand that what they are dealing with is a serious balance sheet recession.** Every economy has four main actors – households, corporates, the financial sector, and governments – each with its own 'balance sheet'. During the 2008 asset price bust, house prices plunged, sending household finances into crisis. In response, people slashed their spending, particularly on big-ticket items like cars, and many were unable to service their mortgages. This turned companies like GM and Ford belly up and pushed the financial sector into a tailspin. Across the private sector, then, the overwhelming need was to deleverage. **To pick up this slack – and in fact, to prevent a recession turning into long-term depression – what governments need to continue doing is leverage their balance sheets sharply upwards.** This may seem counter-intuitive, and it

goes to the very heart of the political debate taking place in Europe and America, but unless it happens, these countries will face years of slow growth, like Japan has since the 1990s.

EMs are *also* seeing a slowdown in growth, from the 8% range to about 4%. India in particular has had a partial balance-sheet recession in the last 4-5 years. The underlying causes across EMs are bad politics and policy, falling commodity prices (at least for commodity exporters), and a slowing China. The key difference is that EMs are now in the midst of a spell of ‘good inflation’ – the result of falling fuel and food prices and the emergence of better and more credible central bankers in emerging Asia. Their problems are thus easier to fix than those of the rich world.

...AND TWO DIFFERENT APPROACHES

The advanced economies have locked their fiscal policy in reverse and at the same time, adopted radical monetary policies. Shockingly, today, a full 25% of the world economy is under a negative interest-rate regime, to the extent that corporates are able to issue bonds offering (marginally) negative yields. In the short term, this will have a **mildly positive impact**, with a spill-over into EM asset prices and interest rates. **From a longer-term perspective, however, the West is sitting on a retirement time bomb**, with Europe and America only about 15 years behind Japan on this score. Pension and insurance fund earnings have dropped from an annual ~7% a few years ago to 2-4% (or less) today. Illustratively, for the year to June, public pension funds in America delivered returns of 0.5% for the second consecutive year – a far cry from their 7.5% target. By some estimates, they are now underfunded by USD 1-2 trillion, and there is little chance of political parties agreeing to take the necessary corrective action – such as slashing the defined benefits offered by pension schemes. Private retirement funds are not doing much better: at current yields, a median 401K account with USD 100,000 in savings will only pay out USD 4,000 a year. Pension pools, quite plainly, are collapsing, and in the next 5-10 years, consumers over 50 are likely to slash their spending in the next 5-10 years. Younger consumers, looking at a grim future, will also start to replace spending with savings. **At the same time, pension funds will be pushed into riskier assets, including EM stocks and high-yield bonds.**

Prospects are better for the EMs, which have plenty of

room in terms of both fiscal and monetary policy. They can sustain the current 5-7% growth rates, so long as political risk is contained and they pursue sensible policies. Over a longer horizon, these markets – especially Asia – will benefit from falling dependency curves, rapid urbanisation and strong income growth.

	2015	2016	2017	2018	2019	2020
Global growth, %	3.1	3.0	3.2	3.6	3.8	3.8
- US	2.4	1.6	1.8	2.8	2.6	2.6
- Euro area	1.6	1.5	1.6	1.6	1.5	1.5
Trade growth, volume, %	2.8	3.1	3.8	4.1	4.3	4.3
Inflation, Adv country, %	0.3	0.7	1.5	1.8	1.9	1.9
Oil price, 3 crude avg, US\$	51	45	48	48	48	50
US Fed rate, year end, %	0.25	0.25	0.50	1.00	1.50	1.75
ECB policy rate, %	0.05	0.00	0.25	0.25	0.75	1.00
US\$, change on TWI, %	16.2	2.0	2.0	2.0	1.0	0.0
Euro 1 to US\$	1.11	1.10	1.08	1.06	1.03	1.03

GLOBAL FORECASTS

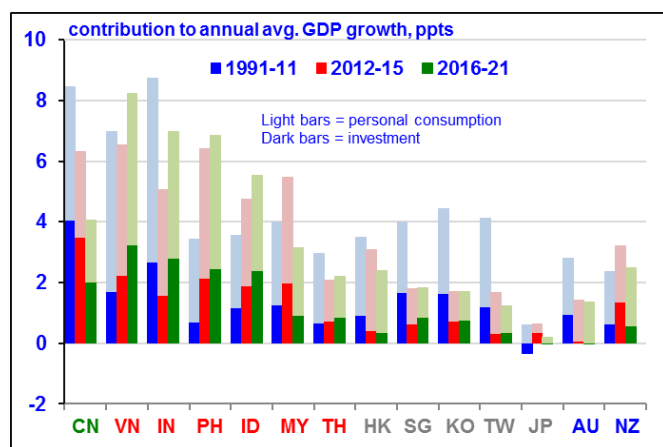
On net, these factors suggest that world economic growth will not return to 4% levels until at least the end of the decade. US growth will top out at ~2.5% and Europe, racked by economic and political problems, including widespread anti-globalisation/anti-EU sentiment, will, at best, stay in the 1.5% range. **Trade will grow only marginally faster than**

world GDP. **Advanced country inflation is expected to move upwards, but will stay below 2%** on the back of flat oil prices and excess productive capacity.

The US Federal Reserve will raise interest rates gently, while the ECB's upward march will be even slower. The dollar is likely to continue strengthening against most currencies, with the **Euro weakening to USD 1.03 levels by the end of the decade.** Driven mainly by inflation differentials, the **Rupee will depreciate by 4-5% a year** – which is, though, an improvement over the ~7% annual decline seen recently. What helps is having credible inflation hawks at the RBI. Over the longer term, strong capital inflows – attracted by India's growth advantage over the rich world – will be an additional factor that will either limit or entirely halt the Indian currency's decline on a YoY basis.

DOMESTIC DEMAND IN THE LEAD IN THE ASIA-PACIFIC...

In a world awash with savings, there are large opportunities to fund investment-led growth with foreign capital. India and South-East Asia together account for a third of the world's population, and their consumer base will be a major drawing factor. In that respect, Vietnam, the Philippines and Indonesia have seen impressive gains in the last few years. As the chart indicates, consumer demand is surging in these countries – in Vietnam's case, taking average



growth past 8% a year – and in the next five years, this will drive up investment as well. **India will see a pick-up in both consumption and investment, while China is expected to slow on both counts** – with each growing at an average of about 2% a year through 2020. **The outlook for the rest of East Asia is less rosy**, with several ASEAN countries – including Malaysia, Myanmar, Thailand and Cambodia – facing an uncertain political future.

...BUT ACTUALLY GETTING THE MONEY WILL BE THE TRICK

While its growth potential may be strong, to truly pull in money, India will need to learn from some of the smaller East Asian countries. In terms of sovereign risk, India is currently at the lowest investment grade (BBB-) – which should enable access to pension funds and the like. However, it has not yet experienced the benefits of a big rating upgrade or massive bond-market flows. Recovering from the Asian Crisis, **Indonesia and the Philippines have seen a sharp improvement in their sovereign ratings in recent years.** As a result, capital has come in on a huge scale, and 10-year bond yields have fallen by 300-350 basis points since 2007, compared to just 70 bps in India. Average rates for commercial loans in the Philippines now stand at a lifetime low of 5%. These countries are better placed, then, to benefit from QE money.

India has done well on most of its macro-risk indicators, including inflation and the current account deficit (CAD). Dr Rajan did an excellent job of bringing down inflation, and with Dr Patel now replacing him, the forward view is also positive. The CAD, meanwhile, has come down – partly the result of restrictions on gold imports and the like. The fiscal deficit – in consolidated terms, about 7% of GDP, compared to 1-3% in these other two countries –

remains a challenge, but it is unlikely to deter investors. However, the *real problem* for India right now is the Rupee's continuous depreciation. Slowing this down will bring major benefits, providing greater certainty to foreign investors. At the same time, India will need to do more to deepen its bond market, which, at the moment is tiny relative to potential. Dr Rajan began the reforms process, but there is still too much red tape. **In this respect, India can learn from China's experience with its Renminbi-denominated 'Dim Sum' bonds, now a USD 100 billion market.** Once investors started buying these bonds, they lent additional support to the Chinese currency. India's 'Masala Bond' issuances – a modest USD 3 billion so far – could, if expanded, strengthen the Rupee. The underlying global demand for bonds is large – USD 35 trillion in Western pension assets alone – and India could fill a fairly large part of that demand. The process will be incremental, but in the longer term, very rewarding.

HOW MUCH LONGER WILL CAPITAL BE CHEAP?

From an average of ~10% in 1990, average 10-year bond yields in the rich world are down to ~1% today. US rates have fallen from 8.3% to 1.9% during this period, and signs are that they will not go back up in a hurry. Simply put, we are living in a world where **capital will probably be cheap for decades**, if not life. A 2012 Bain & Company study reveals why this is so. In 2010, world GDP came to USD 63 trillion, of which USD 15 trillion went into savings. The total 'real' asset base then stood at USD 210 trillion, while financial assets were valued at a massive USD 600 trillion in total – with the divergence between the 'real' and the 'financial' economy only widening over time. According to Bain's projections, in the decade to 2020, the real economy will expand by USD 27 trillion, but financial assets under management will grow by a mammoth USD 300 trillion. Contributing to this is **not just an ageing rich-world population, but also Chinese households**, whose savings are going up at a fast rate. Cheap capital, therefore, will be here for a long time, and **if India can fix its macro issues, its inward flow of capital can be very big, at a very low cost.**

QUESTIONS AND ANSWERS

On what is causing US productivity growth to slow:

No one knows for sure, but total factor productivity (TFP) appears to be down across the board, despite innovation and R&D spending. However, with the US now close to full employment and adding 180,000 jobs a month, TFP should start to see a lift. When growth in non-farm employment slows, fixed investment will have to rise, taking up productivity.

Do growth projections for the US account for political factors like the upcoming election?

Politics is central to the forecasting process, and the quality of the individual(s) at the top really *does* shape how the economy performs. For the US, the current forecast assumes political gridlock – which will be the case if Hillary Clinton wins the White House but has to face a hostile House of Representatives. The US' problems run deep and require major reforms, so it is unfortunate that it will get a government that is incapable of providing that.

On the prospects for Indian exports:

India's domestic price point is the lowest in the world, and 50% below China's. The problem is that the quality specifications are well below international standards. Raising the quality of Indian-made products will certainly boost trade volumes, and move India closer to a trade surplus. However, it will take time to achieve this. The way wages are moving in North Asia, companies are desperate to find the next big manufacturing destination. Some of the largest clothing companies are moving out of China. Many of these will go to small countries like Bangladesh and Cambodia, but also to India.

THE CFO AS CHIEF STRATEGY OFFICER

Govind Sankaranarayanan, Chief Operating Officer, Retail Business & Housing Finance, Former CFO, Tata Capital

The CFO's partnership with the CEO and the Board has always been delicate. In these times of rising expectation, that role has become more complex. Today, the prerogatives of each, whilst meritorious, may not always lend themselves to sustainability. The CEO's primary remit of growth and the Board's, of governance and oversight, both demand guidance. However, such guidance can be hard to give on account of volatility, and perhaps even *harder to accept* by these two crucial partners of the CFO. Most of all, the CFO's greatest value addition in these times of low returns on investment and financial-market volatility is to be able to *prioritise action items for the organisation at large from multiple competing agendas*. Govind Sankaranarayanan, former CFO of Tata Capital, highlighted how this is possible – and how CFOs must build on judgment, create 'proofs', and most of all, build faith and commitment to sustainable growth.

HELPING TO CHOOSE THE RIGHT 'STRATEGY PALETTE'

When it comes to issues like resource allocation, finance leaders are usually in a good position to provide independent and objective viewpoints that are based both on insight (which can be derived from hard data) and on instinct. They also play a critical role in managing stakeholder expectations – including those of Boards, investors and customers. However, CFOs have to ensure that their **strategic role is not 'crowded out' by their other, core responsibilities**: financial reporting, budgeting, compliance, and governance. The CFO's role in strategy-setting is reflected in their decision on how to optimally allocate resources across different functions, units, and focus areas.

To maximise their impact, CFOs must first *acknowledge* that unpredictability is a given in today's business operating environment. Numerous companies have actually tailored their growth paths taking this reality into account. TCS, one of India's largest IT services providers, has built internal capability to 'experiment' with new technologies, enabling it to constantly improve customer offerings and raise efficiency levels. Apparel major Zara aims to be 'fast and flexible' – which it does, for instance, by sourcing from locations closer to the end-market and maintaining no more than six months worth of stocks at any point. Given continually changing customer expectations, agility is another key ask. TCS' CFO believes in 'flexibility', making multiple bets, and continually reviewing performance on each of those. TCS also empowers individuals, especially customer-facing ones, to take such decisions as deploying new technology that *they believe* will improve product quality. Clearly, this is harder for smaller companies to do, as they lack the financial wherewithal to take large risks.

For many companies, what counts is a razor-sharp **focus on building strong ecosystems** for their products. Apple's ability to innovate rests on its extensive network of app developers. Pharmaceuticals major Novo Nordisk has become a 'service provider of choice' in China by collaborating closely with the Ministry of Health in running physician-training programmes. Realising that the alcohol industry is massively impacted by regulation, United Spirits focuses on government relations – and accordingly, has run initiatives on safe driving and youth education.

...AND THEN EXECUTING STRONGLY

A successful strategy hinges on strong and nuanced resource management. For instance, it is important to specify not just the *number of people* required for a given project, but also the *skill-sets they must possess*. Active resource management is also critical, which means

being able to both identify the right investment opportunities at the right time, and to shift resources around as needed. Regrettably, many companies fail to do this. One survey found that most firms maintain roughly the same division-wise allocation of resources from one year to the next. However, those that make even relatively small changes tend to have much higher shareholder returns.

Allocating resources across divisions, units, or functions can be a sensitive issue, but there are effective ways to tackle this. There may, for instance, be some resistance to allocating funds to a new business. In such cases, it helps to fix, at the outset, clear targets for the number of new businesses that will be seeded during the year, and the share of revenues expected from each. As a means of overcoming such resistance, the Tata Group encourages senior managers to move across units. What also helps is transparency and honesty – underpinned by frank, organisation-wide discussions – about the proposed changes. For example, what made possible the Tata Group’s acquisition of VSNL (now Tata Communications) was that its forward-looking CEO discussed the matter candidly, and in doing so, broke some of the internal resistance.

CFOs can also impact the quality of resource allocation by **improving the decision-making process**. Instead of, say, having annual strategy meets, companies might decide their investment priorities mid-year, revisiting them at regular intervals. Moreover, it is important to codify learnings from past experience and to listen to different views. Finally, it is incumbent upon the leadership to **monitor implementation and continually review progress** – laying out clear priorities, focusing only on critical areas and not spreading resources too thin.

POTENTIAL PITFALLS

Several factors can be stumbling blocks to effective decision-making. **Loss aversion**, for one, can cause an organisation to not go through with what would otherwise be a good investment decision. For instance, the Tata Group’s first bid for Tetley in 1995 failed because the British banks were unwilling to offer unsecured credit and demanded a guarantee from the holding company, which it did not agree to give. Decision-making can also be **biased by managers’ past experience**. While learning from the past is a good thing, it is important to determine whether or not the earlier situation is *comparable* to today’s circumstances. **Over-optimism** is another potential issue, and it is vital to consider – and prepare for – downside scenarios as well.

ENABLING BOARD EFFECTIVENESS

An active and truly effective Board will always question management decisions. Some questions, though, may be red herrings, and it is upon management to set the direction, and engage constructively with directors. A high-impact Board focuses not only on financial outcomes, but is also involved in assessing value drivers and resource allocation. To this end, it is important to **earmark a few days each year to assess long-term strategy**. Management must also **ensure that the Boards gets to hear multiple views** – not just those of the CEO or CFO – on consumer-, market-, and industry-related issues. To enable this, it can help for Board members to regularly meet senior managers in an informal setting. This is especially useful in ‘hierarchical’ organisations where managers might be reluctant to provide feedback – particularly when it is negative. Board members should also **engage with key customers**. At Tata Communications, for example, the quality of debate in the Board improved dramatically when the Chairman started to engage with key customers and channel partners. Finally, as a key end-goal, few things are more rewarding than if **Board members are able to articulate the organisation’s strategy** persuasively to external stakeholders.

COGNITIVE ERA: THE FUTURE IS ALREADY HERE

Santhosh Rao, Distribution Sector Leader, Cognitive Solutions Team – India & South Asia, IBM

Cognition is the mental process of acquiring knowledge through thought and experience. Ultimately, it is what helps businesses and individuals understand the future and take on new challenges – and in that sense, cognitive technologies are a full generation ahead of predictive analysis. Today, they truly *can* recognise in advance the kind of change that is around the corner – in markets, customers, mind-sets and technologies. More and more, such systems can and are being used to identify risk and help companies win in a cut-throat marketplace. Cognitive systems, therefore, have become fundamental to CFOs, who, more and more, are playing a strategic and advisory role to their CEO.

THREE INDUSTRY MEGATRENDS...

Businesses everywhere will need to contend with **three broad ‘megatrends’** that are at play today. The first and most significant of these is the **near universal adoption of mobile technologies**. This ties in with, and drives, a massive proliferation of data. By 2020, estimates are that each person on earth will be producing 1.7 megabytes of data per second. 75% or more of this will be ‘unstructured’ data – text messages, videos, images and so on. Currently, businesses use very little of this ‘dark data’ to generate information, but going forward, they will have to find ways to leverage it, and in real-time, if they are to understand the direction their markets are taking. Second, **companies now face cross-industry disruption on a massive scale** – to the point where the very boundaries of competition have become ambiguous. Whether in travel (Airbnb), transport (Uber), or elsewhere, new competitors are taking the lead and knocking over established players. So disruptive is this force that a whole new verb – ‘Uberisation’ – has been coined to describe it, and no one knows where the next challenge will come from. Third, there are **fundamental economic shifts underway** – including rapid urbanisation, and the growing heft of emerging market consumers (who will more than double in market size, from USD 12 trillion to USD 30 trillion over 2010-2025) – that will impact everyone. Not surprisingly, the average ‘lifespan’ of even S&P 500 firms has been declining rapidly.

...AND THE RESPONSE THEY DEMAND

Pulling these strands together, it becomes clear that many organisations will need to forge a new agenda that better combines business with technology. The ability to ‘outthink’ and ‘outpace’ the competition is fundamental, and this means stepping away from a reactive, ‘business-as-usual’ approach built around incremental change. Rather, businesses today need to be proactive, responsive, and digitally alive. Nor can they afford to have any sacred cows, because nothing, in today’s highly disruptive environment, should be considered ‘off the table’.

‘Outthink’: bringing cognition to bear

Cognitive systems can help address this need by **effectively leveraging the data businesses already possess, information that lies outside their firewalls, as well as all of the new data that continuously comes in**. Each day, for instance, the leading financial news corporations – including Reuters and Forbes – generate roughly 9,000 pages of data. Some of this, admittedly, is repeat information, but to make *informed business decisions*, it is vital to leverage large volumes of data in intelligent ways. Unlike with structured databases, analytical queries and programme-based computing, cognitive systems are able to *reason and learn*, and in

the process, they can become effective advisors to managers and businesses. In a nutshell, they are increasingly able to *think the way humans do, but on a scale that humans cannot achieve.*

IBM's Watson is a particularly good example of what cognitive systems can do today.

It is being deployed across businesses, hospitals, and schools to solve a range of problems – from answering Jeopardy questions and putting together a trailer for an upcoming movie ('Morgan'), to mapping the human genome, drug discovery, and even recommending a course of treatment for rare forms of cancer. To be able to perform such complex tasks, Watson employs rigorous, step-wise processes. To illustrate, when answering a Jeopardy question, the first step would be to understand what question is actually being asked, and what sort of answer is sought. At this point, the system does not know how to find the best answer, but it increases its chances by looking at many different options. The next stage involves hypothesis generation – which means scanning through hundreds of millions of documents to quickly arrive at a large number of possible answers. At this point, quantity trumps accuracy: the aim is to capture all possible answers because, if the 'correct' answer is not present in the initial sweep, there is no possible way that Watson will be able to identify and justify such an answer at the end stage.

The third step is hypothesis and evidence scoring. Watson first downgrades answers that are obviously wrong, and then gathers data containing either positive or negative evidence for each of the remaining possibilities. It seeks to understand sentences and passages by *learning* the relationship between words – such as, 'Books have heroes' or 'Authors create characters'. The scoring algorithms rate the quality of the evidence based on multiple parameters, including the reliability of the source material. Thousands of algorithms work in parallel to score the evidence for each and every one of the hundreds of remaining possibilities – all of which must happen in seconds.

Watson then does **a final merging and ranking of information.** Clearly, different types of evidence are better at solving different types of questions. Just as a person learns from practice, Watson uses the experience it gains from trying to answer similar questions to weigh the importance of different types of evidence. By playing thousands of practice games, Watson learns how to weigh and apply its algorithms to help decide the degree to which each piece of evidence is useful or not. These weighted scores are merged to arrive at the final rankings for various answers, with the highest ranked ones appearing at the top. While playing Jeopardy, Watson estimates the confidence with which the *top answer* compares to *every other answer*. If its confidence in this regard is low – less than, say, 50% - it will *not answer* the question at all. **This is critical: the computer knows what it knows, and it also knows what it does not know.** There is, however, *no fixed confidence level*; instead, the threshold constantly changes, based on how well Watson is doing relative to other players, and how much money is left on the board.

FROM LEARNING – TO REASONING

Cognitive systems like Watson use **probabilistic models** to combine *digital intelligence* with *human intelligence* in ways that effectively leverage big volumes of data. The scope for applying this to industry is significant, ranging from customer insight and fraud detection at one end, to finding solutions to pressing human problems at the other. This ability to process and scavenge through massive amounts of information, often unstructured, and to then pinpoint specific answers, is game changing. What is even more critical, however, is their ability to gradually learn and understand, and ultimately, to be able to *reason*.

FUTURE OF THE FINANCE ORGANISATION

Jaimin Bhatt, President and Group CFO, Kotak Mahindra Bank

Srinivas Raghavan, Finance Director, Computer Sciences Corporation

The CFO's responsibility triad of governance, control and strategy demands a high-quality finance organisation that is finely honed on all three counts. Driven by a backbone of smart technologies and fronted by individuals that possess *judgment* as much as *technical expertise*, finance organisations today are complex and yet, require a simplicity and quality of output that enables decision-making, highlights opportunities, and mitigates risk. Leading these organisations cannot be easy, but as Jaimin Bhatt and Srinivas Raghavan illustrated, CFOs can mould existing teams and structures, hire the right talent, and up-skill them in ways that best respond to complex regulation, volatility and the need to partner the business.

LEVERAGING NEW TECHNOLOGIES

By driving investments in automation, digitisation and 'smart' technologies like cloud computing and big data analytics, finance heads can enable productivity gains – both within the function and across the wider organisation. While the initial outlay can be steep, plateauing, even falling, technology costs *will* yield returns in the longer run. Computer Sciences Corporation (CSC), for instance, recently introduced a new 'Integrated Delivery Operation' framework that aims to save USD 3 million in one year. It is also starting to automate processes in ways that negate the impact of worker absenteeism. Not only does this reduce the firm's overall manpower requirements, it can also make talent more substitutable across processes. Further, CSC is conducting pilot projects on digitising areas such as travel and payroll, which should push up efficiency and accuracy levels. It is also setting up a **Centre of Excellence (COE), built around predictive analytics**, to gauge industry and market trends, and to provide early signals that improve the finance function's responsiveness to change.

Finally, with digitisation – and the greater availability of data that it enables – CSC is able to **monitor and improve the management of cash flows globally**. Digitisation helps the company 'know' its key customers in each geography, improving its ability to raise earnings through targeted interventions; in some cases, collections have gone up by as much as 10-15%.

PARTNERING WITH BUSINESS

Today's CFO is not only a 'score keeper' and 'commentator on the score', but also a business partner. He or she is the company's 'Chief Value Creator', with a deepening and widening role in strategy and growth creation. At the same time, CFOs are the custodians of organisational values, which means that they should be leading by example. To engender greater transparency, for instance, they might start by acknowledging their *own* mistakes upfront. **Nor can one over-emphasise the CFO's role in raising governance standards.** This also links strongly with being able to engage constructively with regulators. In fact, any organisation with high governance standards will find regulators more open to fruitful dialogue.

At CSC, finance partners engage closely with customers in various verticals. This keeps customers better informed about CSC's operations and keeps Finance abreast with the customer's business. Analogously, at Kotak Mahindra Bank, the wealth management team has several tax specialists, who help clients understand the tax implications of their investments – which, in turn, allows finance to gauge their customers more effectively. The bank also uses

incentives in novel ways to drive business partnership, such as by encouraging relationship managers to let go of high-value clients who might be better served by a different team.

STRENGTHENING FINANCE'S ANALYTICS CAPABILITY

Volatile financial markets and funding challenges have dampened risk appetite in many organisations. This makes it even more critical than ever for finance to support business decision-making, including **the prioritisation of investment**. Kotak Mahindra Bank, for instance, uses financial-data analytics to identify, and then shift focus away from, regions with higher cheque-bounce rates – an indicator of a weak financial product or geography. Analytics can also **alert business heads about slipping governance standards** – such as when bank branches delay the collection of documents that are required of borrowers.

Further, **analytics can help companies design risk mitigation measures** that also account for customer convenience. For instance, the system can set an optimal upper limit on the amount of cash a particular individual can withdraw at one time from an ATM, as well as the frequency of his or her transactions, in a way that balances the risk of debit card fraud against customer ease. In its retail lending business, Kotak Mahindra uses data on credit card spends to offer customised products. Customers logging on to the website might see pop-ups with a tailored loan offer – and if they accept it, the amount gets credited to their accounts almost instantaneously. The bank also uses **predictive analytics to generate alerts for potential issues** before they occur, which enables proactive and targeted customer engagement, as well as corrective action.

QUESTIONS AND ANSWERS

On the availability of customer/consumer data in India:

Whilst it is true that high quality data on consumer markets is not readily available, organisations can use various surrogate measures – for instance, district-wise sales tax collections as a proxy for variations in economic activity – many of which are reasonably accurate. Further, banks can use external sources such as credit rating agencies, which have fairly good data on retail borrowers. Kotak Mahindra uses a combination of internal customer data, external data sources such as rating agencies, and various proxy measures. It also deploys 'field investigators' to gather customer data.

On up-skilling:

Resistance to change is a major hurdle in re-training and up-skilling people, though less so among younger employees, who are usually more eager to venture into new, uncharted territories. High-growth firms are usually better placed to provide such opportunities. It is incumbent on senior management to set the tone, demonstrating a willingness to change, and to learn from failure.

On succession planning:

At Kotak Mahindra Bank, the Board plays a key role in assessing candidates for top roles – such as through regular discussions about their work. At senior levels in GE, people frequently move across functions, which helps identify candidates. At CSC, candidates for key roles are identified as part of an annual succession planning process. They are then trained and up-skilled, and also given opportunities to demonstrate their suitability for the role to the wider organisation.

On the use of analytics in lending decisions:

Data on salaried customers, which is typically available at external sources like credit agencies, is an important aid for decision-making in the retail lending business. With regard to big-ticket enterprise loans, decision-making is more complex. There, banks need to evaluate several parameters, including the credit worthiness of the company, and the wider industry scenario.

On the use of mobile technologies:

This depends on customer mind-sets. Banks have the technology to allow customers to open an account online, but many are reluctant to do so. However, once people come on board, they tend to become comfortable using digital platforms for certain transactions.

GST: WHEN THE RUBBER HITS THE ROAD

Amitabha Mukhopadhyay, Group Chief Financial Officer, Thermax

Sanjay Jain, Chief Financial Officer, Future Group

Sivarajan Kalyanaraman, Partner – Indirect Tax, Price Waterhouse

In the passing of the GST Constitution Amendment Bill by the Rajya Sabha, and with Presidential assent in place, the single most important reform since India's independence is now reality. Expected in the fullness of time to add up to 2% to GDP with rising efficiencies due to the creation of a truly common market and greater tax coverage, the law will nonetheless, in the near term, create greater complexity for businesses in their everyday operations. Almost everything will change – tax rates and relevant applicability is one side of it; the manner in which organisations engage with the tax administration is another; and strategic decisions on operations and corporate structures, a third.

THE IMPACT ON COSTS, AND PRICING...

For a company like the Future Group, which spans the spectrum of retail (Big Bazaar), FMCG and supply-chain logistics, the new tax will bring positives as well as negatives. Of its projected Rs 250 billion turnover next year, the Group expects to pay Rs 20 billion in lease rentals. Currently, it pays service tax on these rentals, which, since no input credit is available on it, is a direct expense. Under the GST, however, this will become eligible for input-tax credit (ITC), which represents a big saving. Further, the new destination-based tax will drive the company to consolidate its warehouses and move them closer to the point of sale, allowing for additional savings on supply-chain logistics. Finally, there will be ITC on roughly 10% of its Rs 5 billion in annual capex. **It total, the company expects savings equal to 2% of turnover, which it hopes to pass on to consumers.** On the flip side, depending on the final GST rates, **the price of the average basket of goods purchased at a Big Bazaar store – a mix of food, affordable fashion and home furnishings, body care, and so on – could go up by as much as 5%.** In other words, higher taxes on end-products are likely, given the current assumptions, to outweigh the efficiency/tax benefits the company gains on the back-end. Hopefully, though, political compulsions will ensure that the government contains the inflationary impact. Malaysia, which recently introduced the GST, provides a good comparison: it saw an uptick in inflation, from 2-3% to 5% in the first year, but prices pressures quickly dissipated thereafter.

At engineering businesses such as Thermax, the GST is expected to escalate project costs by about 4-6%. This is because, compared to a current effective tax rate of 14% (12% excise and 2% central sales tax), the GST rate is likely to be in the 18-20% range. Moreover, given long gestation periods of greenfield projects, organisations will be able to avail of ITC only in a phased manner, which means this amount will be effectively blocked for a few years. Cost pressures will be particularly acute in the power and the oil and gas sectors, which have been kept outside the GST and hence are not eligible for ITC. By some estimates, the cost of such projects will go up by 20%, which will hurt their viability. While the GST Council is empowered to bring petroleum and related products under the GST net at a later date, doing so appears politically unpalatable at the current juncture. Petroleum is a major source of revenue for the states, and despite the Centre's commitment to fully compensate the states for any revenue loss, they remain opposed to its inclusion. Hopefully, this will change once states start to see that the GST will, in fact, boost their overall revenues – because, for instance, they will start to tax services for the first time.

...BUSINESS DECISIONS AND FUNCTIONAL AREAS...

Plainly, the GST will have a range of other financial and business-decision implications, particularly for manufacturing companies. IT preparedness is one issue, but at another level, working capital management will change, as will choices on the setting up and/or continuation of certain manufacturing units. It is also unclear, for instance, how area-based exemptions – in states such as Uttarakhand – will be treated under the new regime. Moreover, the procurement, marketing, distribution, and logistics functions will be affected in multiple ways.

...AND COMPLIANCE REQUIREMENTS

Lastly, the GST will also bring several compliance-related challenges. **Services companies will need to contend with moving from a centralised to a decentralised regime**, which will have its own complications. Most heavily affected will be those firms **that operate in more than one state, and will therefore have to register separately in each**. Moreover, as it currently stands, the model law does not allow CGST and IGST pools to be fungible across states. Thus, many organisations will have to maintain separate accounts for each state. Further, multi-state companies will need to file many times more returns under the GST than they currently do. For instance, a services company that operates in, say, ten states currently files only two half-yearly service-tax returns. Such a company will now have to file at least *three returns every month in each state* – a total of 360 returns – all of which will be subject to audit, assessment, and scrutiny. This will substantially increase the compliance burden. Finally, there is a **lack of clarity on the ITC provisions for services**. For instance, the *place of supply of a service* may be different from the *place of registration* of either the service provider or the purchaser, and it is unclear whether the latter will then be entitled to ITC.

QUESTIONS AND ANSWERS:

On preparing for the GST:

Industry should engage with the government to highlight key issues. Engagement with internal stakeholders is also critical. For instance, the Future Group's leadership team is working with key stakeholders, such as the finance heads and controllers of various business units, as well as procurement, logistics, IT, and customer-facing teams, to prepare for the GST. It is also focused on capability enhancement and coaching the accounts and taxation teams. In addition, it is strengthening its IT infrastructure, including its vendor interface. Further, given that organisations will be able to avail of ITC only if vendors file returns in time, the level of preparedness of vendors and the quality of their systems are key concerns. Similarly, Thermax is evaluating the ability of its vendors to comply with the new law. A steering committee, headed by four business heads and comprising a core team of 50 individuals, now meets twice a week to study the new law. The committee has identified a few projects, and for each of those, is studying the transaction-by-transaction impact of the GST. Additionally, Thermax has embarked on a programme to train nearly 300 customer-facing individuals. It has also formed a 12-person IT team to set new technology systems in place. Ultimately, it is vital for organisations to list the required tasks, assign responsibilities, and identify the issues that need prioritisation. Clearly, this is complicated by the fact that the law is still in draft form.

On the concerns of the automobile industry:

The automobile industry is actively engaging with both Central and state governments to highlight various issues in the new law. These include, for instance, provisions that will potentially be disruptive for the organised used-car sector. Also, there are certain transition-related issues. For instance, dealers or trade partners that are not first-stage dealers (that is, not registered under the Excise Act) will not be eligible for ITC on duty-paid cars on the date of transition to the GST. Even at the time of introduction of VAT, such issues were a major

worry, given that states had different transition provisions related to tax credit. Regrettably, despite repeated discussions, state governments have so far not rectified this. Finally, the model law has implications for transfer pricing. Under the Customs Act, the Indian territorial waters extend up to 24 nautical miles, and the new law raises this to 200 nautical miles. This means that high seas transactions that were previously not taxed will now be subject to taxation. Whilst the government has stated that this is intended only to cover deep-sea extraction, the law itself does not clarify this.

On input tax credits:

Today, companies are able to utilise tax credits for inputs only in a phased manner, and this affects their return on capital (ROC). That is why several organisations report two figures for ROC – one excluding the amount that is blocked as ITC, and the other including it as part of working capital. With regard to capital goods specifically, the model law does not clearly state whether companies will be paid ITC on day one or over a period of two years. However, there *is* a government document that states that credit on capital goods will be paid in a phased manner. The precise mechanism will hopefully be laid out in the final set of rules.

There are several other issues with regard to capital goods. First, while inputs are defined as goods and services used in the course of, or in furtherance of, business or commerce, capital good inputs are defined as inputs or input services used for outward supply – and are not linked to business or commerce. Already, this has given rise to litigation. Another issue is that the model law states that capital goods will be taxed at the place of business of the supplier, which can be problematic. For instance, in the automotive sector, a vendor will pay the tax at the place where it manufactures the car components. However, if the car manufacturer operates in a different state, it will not be eligible for ITC on the capital goods (that is, the components supplied by the vendor).

On the treatment of services rendered by an employee to an employer, and vice-versa:

Technically, even a salary, which is a payment for the services rendered by an employee, is liable to taxation under the GST, but the model law exempts it. What is does *not* exempt, however, is the provision of such services as subsidised food or transport by an employer to an employee. In this regard, a recent ruling by the European Court of Justice (ECJ) on the inappropriateness of taxing a payment made by a passer-by to a street singer – where there is no contractual obligation – is relevant, given the similarity between India's and the EU's definition of supply of service.

On concerns about increasing harassment by tax authorities:

Given that the GST will subsume a multiplicity of taxes, there are concerns that tax authorities who currently enforce, say, service or entertainment tax will no longer have to do so, and hence will have more time on their hands to 'harass' taxpayers. However, it is not entirely correct to say that the GST will make tax officers redundant. This is because the government is training various departments – such as those dealing with purchase tax in Haryana and Punjab, and those enforcing Octroi in Maharashtra – to execute the GST. Moreover, in each state, it is the respective VAT authorities that will be enforcing the SGST. In this context, it is interesting to note a proposal that small taxpayers (those with a turnover below Rs 1.5 crores), should face only one, state-level tax administration, which should enable greater ease of doing business. Further, with respect to the services sector, tax authorities will be able to reopen an assessment case only after 45-57 months, compared to the current 12 months. Finally, given the substantial rise in the number of returns that companies will have to file, the enforcement of GST will in fact require *more* manpower.

INDIVIDUAL EXCELLENCE: COMMITMENT, FOCUS, CAPABILITY

Viswanathan Anand, Padma Vibushan, Chess Grandmaster, World Chess Champion

What does it take to be a five-time World Chess Champion, India's first grandmaster, and one of only two people to have won the Classical, Rapid *and* Blitz world championships? Clearly, it requires sheer intellect, but it also demands enormous dedication, great mental strength, and a generous dose of passion. Chess is no 9-5 job, and it takes passion and tenacity, like Viswanathan Anand has shown, to come back from a painful loss to Magnus Carlsen in the 2013 World Championships. In a candid and freewheeling discussing, Anand spoke about the qualities – and the hard work – that make for excellence, in sport and in life.

FAILURE IS A BEAUTIFUL THING – IN MODERATION!

People who follow sport learn much from the success of sportspeople – but what sportspeople learn from is failure. **What failure teaches you, first and foremost, is honesty:** after all, when you lose a game, there can be no denying the fact of that loss. In comparison, winning all the time can blunt your enthusiasm and allow errors to creep into your play. This may not have immediate consequences, but slowly, you will start to draw games you should have won, and lose ones you should have drawn. In one tournament in Mexico a few years ago, Anand needed 2 'escapes' in 6 games. Right after that, in Germany, he played perhaps the worst contest of his career. He lost one and drew four of the first five games. His opponents smelled blood, and in four of the remaining games, he fought hard just to *avoid losing* – but ended up losing three anyway. This was a wake-up call for Anand. It forced him to look back closely at his performance over the previous 18 months and instilled in him a new sense of urgency. Although he had been fairly successful, he was far from his best, and some of his success was even accidental. At times, he got away on the sheer force of his reputation, which perhaps led his opponents to make mistakes. Confronted with the truth, he went back to the drawing board, working intensely to halt the problem once and for all.

Second, failure sears itself in your memory and forces you to learn and remember. Today, whenever Anand starts to have bad results, he thinks back to the disastrous tournament in Germany, and this helps him to refocus. In general, you learn by studying your own and others' choices, by replaying past games, and by trying to understand what worked – or what might have worked better. It is only in the process of playing, though, that these thought truly get clarified. When you constantly win, you start to forget your old lessons, but when you *lose*, you will remember it even 30 years later. To this day, Anand can recall the games he lost when he was 6 or 7 years old: not just the event itself, but the look on his opponent's face, the feelings he went through, and so on.

Third, failure teaches you courage and risk-taking. You discover, in fact, that there is *nothing riskier* than *trying to avoid failure*. In chess, as in life, there are things we know and things we do not know yet. When Anand comes up with a new line of play, he has an advantage only until he plays that line in a game. After that, depending on how quickly others study his moves, the advantage may or may not be neutralised – there is simply no way of knowing, one way or the other. Having already exposed his cards, though, he has to keep taking risks and learning new things; it is never enough to stick by the tried and tested. Over the span of a career, chess players may follow a broad style of play that suits their personality, but within those bounds, they have to change and evolve.

To illustrate, in 2008, Anand was to play a championship match in Bonn against Vladimir Kramnik – someone he had played 130 times over 16 years, with their scores almost exactly

even up to that point. Kramnik is a difficult match-player: he keeps coming back at his opponent game after game, is extremely good at neutralising the other player, and is possibly the best chess researcher in the world. Anand had a year's lead-time, and his normal approach to match-preparation would be to review how Kramnik might respond to Anand's favourite schemes. That, though, would have simply played into Kramnik's strengths, producing a match of attrition. Anand had no choice, then, but to try and 'solve' this puzzle. He decided to do two things. First, he would surprise Kramnik with a whole new line of play with white, while being unusually aggressive with black. Second, he would *fully commit himself* to this strategy – no matter what the result. This freed everyone up, giving his team a blank slate to work with, and allowing them the focus they needed to execute this strategy. It proved successful: by the 6th game of the match, after a lifetime of parity with Kramnik, Anand was ahead 4.5 to 1.5 points. Taking risks is what allowed him to play the very best match of his life.

DECISION-MAKING UNDER PRESSURE

Chess is not only about making 'good moves', but also about keeping hold of yourself and staying as calm as possible. Panic can set in at any point, and no matter how well-prepared you may be, you see 'holes' in everything you do. Few situations are trickier to deal with than a losing streak. Having lost the first game of a match – which sometimes happens when your ambition and ability are out of sync – you need to 'stabilise' yourself for the second. By putting the loss behind you, getting a good night's sleep, and aiming for a decent performance in the next game (which does not need to be about playing for a draw), you can hope to break the streak. If things still do not go your way, you have to **recalibrate your goals for the tournament and try to stem the rot**. Most of all, you have to work on the assumption that, even if every move that pops into your head is not the very best move you can make, it is still among the 4 or 5 best moves possible. When you start blundering on every move, you start to doubt everything, and it becomes vital to rebalance at that stage.

Several things can help you build and maintain strong nerves. First comes physical fitness, which, for Anand, is mainly about stamina. He does a mix of cardio, weights, yoga and stretches to ensure that he can sit for 5 hours at a time without tiring. Having the right posture is also vital, because an intense game of chess gets 'felt' in different parts of the body. After a tight game, he often goes to the gym, which also helps him sleep better. Second, it is important to take deep breaths, walk around and stretch your body during a game: *when your mind is undisturbed, you will almost always make better decisions*, neither unduly optimistic, nor overly pessimistic. Third, all the preparatory work leading up to a game is essential. Knowing a position when you see it – and knowing *what to do about it* – will automatically calm you down. At one point, Anand was struggling with a particular type of end-game. He worked with a trainer for days to solve the problem, and when it had finally been 'cracked', he memorised the ten 'safe harbour' positions that ensure at least a draw. Fourth, having a strong emotional support system – including supportive trainers, friends you can talk to, and hobbies that can distract you – can keep your nerves calm in tough situations.

Pressure can come in many forms. Scheduled to fly from Frankfurt to Sofia for a World Championship match, Anand found himself 'grounded' by a volcanic eruption in Iceland that caused hundreds of flight cancellations. The alternative was a 40-hour bus journey, but there was a real risk that the skies would clear halfway through the ride, making it a bad decision *not* to have waited. Several days passed, and finally, Anand had no option but to drive. Instead of reaching a week ahead, as he usually does, he arrived at Sofia tired and unsettled with no time to spare. Expectedly, everything went wrong in the first game, which he lost badly. With his

opponent's confidence up, Anand had only one choice: sleep it off, pretend that there were only 11 games, not 12, in the match and tell himself that his opponent's style of play would give him chances to claw his way back. This set the tone for the rest of the match – not only for himself, but also for the rest of his team. After a topsy-turvy ride – wins on both sides, several missed opportunities for Anand – the scores were even at the end of game 11, and the 12th would be the decider. Anand was playing black, which he had been struggling with recently – but at the last minute, he decided to try a new opening. As importantly, he was able to hold his nerve. As it turned out, it was his opponent who was more worried about drawing the last game, knowing that Anand was better at tiebreaks. Going for the win, he took big risks and ended up losing the game – and the match.

ADAPTING TO A CHANGING WORLD

Chess has changed dramatically in recent years. Anand grew up playing at a chess club, and if an important game was held anywhere in the world, it would be months before the notation and analysis filtered down to him. Now, of course, you can watch a game live over the Internet. Then, it would take 1-2 *years* to learn a new type of play; today, the timeframe has been compressed to a *day or two*. Back then, memory and judgement were a chess player's most important qualities, but in the last few years, computers with tremendous processing power and huge databases have tilted this balance. In the early days of computing, a machine might contain 8,000 games at best; today, Anand carries around a database of 10 million games. From being used merely for error-checking – and occasionally to give a suggestion or two – machines began to consistently beat humans. So tactically strong have they become that no human can hope to beat even a *smartphone*, let alone a *supercomputer*.

All of this has forced chess players to change their approach to the game, in profound ways. Earlier, Grandmasters like Anand might have had strong opinions about something a machine suggests, and may even have disagreed with its conclusions. Today, they simply assume that the computer is right – and, as a result, one needs to be able to question everything, and keep learning new things. Computers often find moves that humans might have missed, forcing players to move outside their comfort zone. No longer can they afford to specialise in a few set areas, since anyone can use a computer to uncover the underlying pattern. Even if what the machine suggests is 'ugly', even repelling, to someone who has a strong sense of 'aesthetics', players simply have to be open to lines of play they would have previously rejected. The upshot is that, while some of the old skills – understanding, judgement – are no longer as relevant, the ability to navigate, to solve problems, remain critical. Rather than entirely discarding one's old skills, therefore, the key now is to 'upgrade' or 'update' one's knowledge, look for new solutions, and find new ways to 'put it all together'.

SAVOURING THE WINS

Failure has its advantages, but it is even more important to savour the wins. After all, winning – particularly against a tough opponent – is what confirms that you are on the right track. All of the thought, preparation and continuous experimentation that goes into chess has to show results at some point – and when it does, it is vital to revel in the pleasure for a while, and to not move on too quickly. At the end of the day, chess is about passion: no one would choose a job like this unless they were passionate about it. As with any other walk of life, interest in the subject matter can only take you so far – so it essential to stay excited and fascinated. Taking risks, learning new things, finding new ways of seeing things – and of course, *winning* – are what keep that passion alive.

QUESTIONS AND ANSWERS

In chess, how much is strategy, and how much execution?

It is not strategy at all, but pure execution – which is why computers wipe us out today. They can look at 200 million positions a second, find the one move we might have missed, and that is usually enough. In essence, strategy is an approximation of judgement, and humans continue to use it because they cannot match machines on execution. Strategy comes down to *what* you might aim to achieve against a human, and *how* you will execute it, but once you sit at the board, it is only calculate, calculate, calculate.

On choosing a team:

Since you will be spending months on end together, the most important criteria in selecting a team is that you get along: being friendly with each other, having things to joke about, and so on. Second, team members should have the ability to see what you need, and what you do not yet know you need. The job of a trainer is to *spot things*, such as when a player is being overly optimistic in a bad position, when what he should be aiming for is a draw. Third, trainers should specialise in areas outside the player's area of specialisation. Even if the trainer is, on the whole, 'weaker' than the player himself, he might be good at an area where the player is weak. Finally, what makes a difference is the ability to grasp what the player is aiming for, and a really good trainer will be able to do this without even a word being exchanged between them. Sometimes, a look on one's face is all that is needed.

On firing team members, and on heeding their advice:

My team is generally small – no more than 4 trainers – and I hardly ever fire anyone. At most, I might not invite a person back to the team after a tournament is over. However, people do move on because their circumstances have changed: they might want to play more tournaments themselves, or get invited to work with someone else. The most important aspect of working with a trainer – and also the hardest – is to suppress your own opinion. Often, my team will make suggestions that are stylistically better suited to them than to me, and if my first response is negative, I risk missing out on a new idea. Even if I am uncomfortable with a particular line of play, I understand that it can lead to interesting results. By rejecting something, one ends up wasting time and energy defending one's own position.

On going from being a 'lightning' player to having a somewhat slower style of play:

I used to play fast because that is my natural tendency. If the 'answer' to a move seemed obvious, I would play it quickly to see if I was correct – and also, in effect, I would be challenging the opponent to prove I am wrong. As a strategy, the results can be mixed: it can put a lot of pressure on the opponent, but it can also lead you to make superficial moves. The most important thing to determine is whether it is *good for you*. Playing fast is my natural style, so it would be a mistake to fight that entirely. However, as I became stronger and started to play better players, the odds changed. I won fewer games, and began losing more. This happened gradually, and I slowly realised that it was not always right to make a rushed move. My trainers would also ask me to slow down, and to spend more time thinking through a situation. One of them realised, though, that no matter *how much* time I was told to spend 'thinking', in effect, I would get done in about 2 minutes and waste away the rest of the time. Eventually, I trained myself to slow down, to look at the board again and again even if no new move occurred to me, until some interesting idea would present itself. Often, I still move too fast, which causes me to make mistakes. I can only moderate this, but not fight it entirely.

Who are your most feared competitors?

The biggest challenge comes from playing someone who, for stylistic reasons, you are incompatible with. Equally difficult is when you must play against an opening that is unsuited to your style. These are not technical issues that can be readily solved, but intrinsic problems. Just like after having played bad game, the answer is to simply keep turning up, day after day, keep studying the situation, and keep learning new things. In my younger days, I would find myself unable to beat certain players, but then, after a gap of a year or two – during which I would grow as a player and find new qualities in myself – I would return and beat the same person quite easily. The ‘compatibility’ problem, in other words, solved itself. Another approach is to gamble: if you are likely to *lose anyway*, you might as well try something new and see what happens. Push yourself, and hopefully, one day, you will snap out of a losing streak.

On having ‘nerves of steel’ in pressure situations:

The most important factor is to keep a score of yourself, and understand how much the little things might be disturbing you. By some stage of your career, you would have corrected the big issues, but in chess, you often lose because of the little things. These might include, for instance, not keeping track of *your own pattern of play*. In time-control situations where the opponent has very little time left, I would often start to play fast in the belief that I was giving him less time to think. I realised, however, that I was also *putting pressure on myself* by making it feel as though I did not have any spare time. In chess, time must be invested well, and it can be a mistake to gamble to get the game over with quickly, rather than trying for the best moves. It is important when playing under pressure to calm down, spend time on each move, and pay attention to the small details. Also, before any match, I make sure not to read the newspapers, for risk of reading something that my opponent – or anyone else – might have said about me.

How inward-focused is the game of Chess?

At the top levels, you never play the board, but only the opponent. When there is a huge gap in skills between you and the other player, you need only play the board, and the gap will eventually show. However, when you are more evenly matched, you will not get anywhere by making just ‘reasonably good moves’. The only way to win is to *understand* the opponent – and to also assume that just like you are analysing his weaknesses and trying to get the best of him, he is doing the same to you.

What is harder – reaching the top or staying there?

Reaching the top was initially more satisfying, and brought more joy, but over time I realised that doing something twice or thrice is so much harder, and I do pat myself for that. What might work best is to separate out each victory: forget the first one, and treat the second one as though it was the first. Starting from scratch is easier to do with tournaments, since they each tend to play out differently, and you do not carry over points from the last time. There, you are fighting for everything, and it is most healthy if you can keep up that attitude.

THE CFO AS CHIEF FUTURE OFFICER IN A DIGITALLY DISRUPTED WORLD

G Sambasivan, Chief Financial Officer, Tata Sky

Jatin Dalal, Senior Vice President and Chief Financial Officer, Wipro

Manish Dewan, Executive Vice President, Retail Sales and Corporate Cards, SBI Cards

The CFO's role has two important characteristics: reporting the past, and predicting the future. The second of these is becoming ever harder to do, given that the past may no longer be a reliable indicator of what to expect in the future. Established business models are prone to disruption emanating from new technologies or policies. Japan now has a hotel where the only humans in charge are security guards, and everything else – from check-in to basic room service – is automated. In the financial services space, high-value home loans are getting sanctioned online, in real time. For CFOs, the imperative will be not only to identify and anticipate disruption, but also, to create in-house capacity that can take advantage of emerging business models.

MANY FORMS OF DISRUPTION...

For a company like SBI Cards, disruption comes from new payment channels as also from the spread of digital technologies. The Indian credit card industry really began in the 1990s, but it was two decades before the overall customer base touched 25 million. In striking contrast, payment-wallet provider Paytm was able to acquire 100 million wallets in *just a few years*, and further disruption will now come from the new, app-based UPI payment systems. As payment systems become more 'frictionless', traditional models will need to rethink their value proposition – and in fact, the product offering itself. For instance, given that a *physical credit card* is no longer necessary to complete a transaction, is a 'credit card' a physical, front-end 'brand', or instead, a deeply embedded source of funds? Digital channels, meanwhile, are changing how companies acquire customers. The traditional acquisition route is a mix of face-to-face and telephonic, and until two years ago, only a tiny fraction of people would apply for cards digitally. Today, SBI Cards receives 60,000 applications – or one-fifth of the total – in a non-physical form, shifting the very economics of the sales function.

IT services companies like Wipro are at the cutting edge of technology, so it is ironical that they are the ones who often find it hardest to anticipate or even drive industry disruption. Wipro has seen phenomenal growth, and it has a healthy, cash-rich business model. Collectively, in fact, the top three IT companies generate more cash than the 27 other BSE Sensex firms. The flip side of this is that it **risks becoming a victim of its own success**. **Wipro's business is predicated on problem solving for its customers, but it is possible to anticipate a future scenario where these problems no longer exist.** Most people never contact a call centre for assistance with an app, for example, and it is possible that, a few years from now, IT systems will be *so* configurable that companies will no longer need tech support. Even more fundamentally, while Wipro has stayed at the leading edge of the curve on operating practices – for instance, it automates nearly everything that can be written into an SOP – **the future will be about cognitive systems.** Wipro already employs some 150 'bots' within the organisation, which, in their respective domains, 'behave' very much like human beings. Currently, they drive less than 1% of company revenues, but looking ahead, this will change. Today, the firm's 180,000 employees generate USD 8 billion in revenue, but doubling the top-line from this point will not mean doubling its workforce. At most, it might hire an additional 50,000-60,000 people, and headcounts could, under certain assumptions, even come down.

At Tata Sky, everything starts with technology. Next comes process, and finally, the people who manage these processes. In a business that sees continuous technological disruption, the processes also need to continuously adapt. The UPI payments channel, for instance, will have a positive impact on the company's financials – given a business model that currently relies on subscription being recharged at the dealer end. 4% of revenue goes towards recharge expenses, but when customers are able to directly transfer money from an app, the cost will drop to about 0.6%. If, over a 5-year horizon, all of its customers move to the UPI platform, the company will end up saving several hundred crore Rupees annually – a hugely disruptive shift. **On the negative side, the availability of cheap and abundant data bandwidth is expected to change viewing behaviour in fundamental ways.** Today, people watch television content primarily on TV sets, but this will change as content becomes more readily available on mobile phones and tablets. Such a shift may not happen in the next 2 years, but over 5-10 years, as much as 70-80% of the population, and especially those below the age of 25 – who already use the internet to consume the bulk of their content – could migrate, denting subscription revenues. Fortunately, for now, the greater share of TV watchers are people over 40 who *grew up* watching TV, and will continue to do so for years. By 2036, though, 80% of potential subscribers will be millennials who have never owned a TV. This will completely upend viewing behaviour.

...AND ADAPTATION

How companies – and in particular the finance function – respond to such disruption will guide business sustainability in several ways. First, businesses will need to re-examine the very determinants of their investment decisions. Traditional ROE or ROI-based models look at how investment can generate growth. Today, however, companies might need to start considering models where the capex goes not towards *growing* the business but to *preventing its decline*. This will require a major change in mind-set, even company culture, because most organisations will not make investments that *apparently* generate no – or even negative – returns. Often, in fact, managers prefer investments that look like the current business model, so the amount of un-learning needed is massive. Shareholders, for their part, prefer to get cash back rather than have their money invested in something 'untried'. The way around this, as Wipro has shown, is to plough back a certain share of profits into 'horizon' investments that may not show results immediately, but pay off perhaps 3 years down the road.

Second, organisations might need to instil a more risk-taking attitude in their talent pools. Ideally, a company cultures should be driving innovation and exploration, but few actually do so – let alone pushing people to disrupt their own businesses before someone else manages to do so. Several measures can help change this. Finance staff, for instance, can be encouraged to gain cross-functional experience, and thus, a broader and deeper understanding of the business. At SBI Cards, new hires spend up to 2 years rotating through different functions in 6-month stints before settling into a particular role. American Express mandates that 10% of its people move across functions each year. At Tata Sky, the constant aim is to bring cutting-edge technology and products to the Indian market before someone else does. It believes that, as the market leader, it needs to remain innovative – and one way to ensure this is to regularly send its people abroad – to conferences, vendor meetings etc – to gain new insights and ideas, and the courage to invest.

More generally, Tata Sky follows a 'CEO' – collaboration, experimentation, ownership – approach, where *everyone* is allowed to experiment, and importantly, to fail. Each year, it sets aside a pool of money for capex projects under the assumption that 8 out of 10 will fail. Those ideas that succeed, however, often pay off – and many of these are cross-functional projects

that end up cutting across silos. For instance, one project, led by finance, focused on end-to-end set-top box management through the SAP system. From the procurement stage right until it reaches the customer's home, this gives visibility and control over each box. As a result, Tata Sky can now track exactly where – by region and district – each box lies.

A third aspect, particularly relevant in today's disruptive environment, is **investor relations**. Usually, shareholders might lose faith in a company after just one bad quarter. However, if the CFO is able to build a compelling story, project clarity of vision, and strongly communicate the journey the organisation is on, it can build support and help shift the conversation towards longer-term imperatives. Finally, some businesses will necessarily have to rejig their revenue models in the years ahead. Tata Sky knows that a significant share of its sales will be at risk from digital/mobile technologies in the next five years. To fill that hole, by either maintaining or growing revenue, it will have to launch new products – particularly under its 'Active Services' banner – that fall outside the subscription space. Hand-in-hand with this, it may also need to change certain internal processes. At a top level, it also has a robust ERM system with clear lists of activities at risk, and their associated risk levels. By identifying and documenting the biggest possible disruptors, it has a better chance of managing them.

QUESTIONS AND ANSWERS

On changing customer profiles:

Wipro runs an annual exercise to see which areas globally have seen an increase or a decrease in market capitalisation – since either end of the scale can yield strong business growth. In recent years, some good customers have vanished from the horizon, partly because customer expectations have changed so much. The total global IT headcount that supports WhatsApp is just 45, whereas typically, it would take somewhere in the region of 15,000 people to manage an account that size. Clearly, it is not possible to sell a 'normal' suite of services to such firms.

On innovation:

For SBI Cards, when looking at digital channels, the choice was between treating it as another tool within the existing structure, as a separate channel, or as a P&L item. It chose to regard it as a whole new sales channel with strong visibility and clear goals and targets, even if this meant competing with other channels. At Wipro, acquisitions – particularly in areas outside its core expertise, including design – are an important part of the innovation strategy. At the P&L level, too, the company encourages people to take risks and find new ways to do things. Were it not to innovate, Wipro risks losing significant market share, so the 'hunger' to do different things is partly driven by P&L pressure. Tata Sky has a heavy focus on innovation. There is no separate group responsible for it, but instead, people innovate in addition to their day jobs. Finance has a number of tech people who know the systems from end-to-end, and are therefore very good at detecting and preventing fraud. Finance itself has greatly reduced its reporting timeframes, bringing a 15-20 day MIS cycle down to 2 days, thus freeing up the rest of each month for forward-looking work. Its audits, which used to be completed by June-end, are now closed by the 28th of April, and the aim is to bring the deadline forward by a few more days each year.

On managing disruptive innovation that comes from outside one's industry:

In the last 18 months, Wipro has built a venture-funding arm that has strong visibility into new trends in technology. Hopefully, it will be able to spot the next Uber or Airbnb that emerges in the IT services space. That said, it can be incredibly hard to spot disruptive new companies. 20 years ago, for instance, no one saw Wipro or Infosys coming. Tracking customers and their evolving needs is the only effective way to stay ahead.

INDIA'S POLITICAL AND GEO-POLITICAL BID: OVERARCHING CONTEXT

Pramit Pal Chaudhuri, Foreign Affairs Editor, Hindustan Times, Fellow, Asia Society

VISION...

Two years ago, when Narendra Modi came to power riding a remarkable electoral mandate, he had a clear – and ambitious – set of priorities for his government. **The overriding concern was to restore India's economic growth**, in particular by regaining investor confidence. Second, learning from the UPA-II's experience, **he was determined to avoid any major scandal in any important policy area**. He knew that once a scandal hit a Minister or ministry, policy decision-making in that area would be completely paralysed for 3-4 years. Third, recognising that the previous BJP Prime Minister, Atal Behari Vajpayee, had lost power mainly because right-wing nationalists saw him as 'too liberal', **Mr Modi needed to dole out at least some sops to keep this group interested**. Fourth, he believed that **India was finally ready to move beyond a caste/religion-based identity politics to one that is centred around governance**. Supporting this was the fact that a third of the Yadav vote in UP and Bihar – traditionally split between the JD and the SP – had gone to the BJP in the general elections. By focusing on governance, he believed the BJP, with its stronger grassroots presence, would be at an advantage over the Congress. **Fifth, he was deeply concerned about the dangers of climate change, which he continues to see as the existential issue for India**. Finally, he wanted to **tackle the black money issue**, which came out of a deep politician-business nexus, particularly in areas such as real estate, construction and infrastructure. By breaking this nexus, he also hoped to break the financial backbone of regional parties and the Congress. **Foreign policy figured very low, if at all, in Mr Modi's priorities**. He disliked America and was naïve about Pakistan and China, believing that the only thing they wanted from India was trade. The only part of the world that interested him was India's small neighbours, because it troubled him greatly that they disliked India so much.

...AND REALITY

The economy

By talking up the markets, keeping Dr Rajan on at the RBI, and by going on several high-profile foreign visits in his first few months in office, Mr Modi earned some breathing space from rating agencies and foreign investors – who would have pulled out en masse if the UPA had won again. Today, while foreign investors may not be particularly happy about progress on reforms, they are willing to risk a small portion of their global assets on India. What has not improved much during this time is the private capex cycle. In going after black money so aggressively, the NDA has ended up cramping investment in large parts of the economy. Cash-in-hand as a share of GDP is now at record (6-7%) levels, and many business people are hoarding money for fear of getting caught spending it. Plainly, while the campaign remains popular with the public, no one in the government had anticipated this (unintended) result. Thus, it has had to compensate by investing large amounts of public money in the last two years – as also, by getting Mr Modi to continue wooing foreign investors. The results on this second count have been mixed. Japanese firms have over USD 1 trillion in cash which they want to invest in countries like India, but most of their projects here have thus far failed to make money – moreover, they believe the Indian system lacks the ability to absorb so much capital. It will be important, then, to push forward on measures that make it easier to do business in India. On a more positive note, the Prime Minister continues to drive economic reforms, most importantly the GST – something that his party believes will negatively impact its core constituency of small businesses. Despite internal resistance, and the obvious political risks – the possibility of losing votes so close to the election cycle – Mr Modi has shown great resolve by going ahead with it.

Governance

During his first 12-18 months in office, the PM struggled with another unexpected issue: the bureaucracy. He quickly came to realise that his initial strategy of depending heavily on IAS officers was a mistake, particularly because, while they may be very good at implementation, most bureaucrats fall short when it comes to developing new initiatives. This explains the churn that has occurred at the Secretary level, with as many as 3 Finance Secretaries being moved out. Now, Mr Modi finally appears to be confident that he has a solid core team in place, at least in certain policy areas. Going forward, the **Niti Aayog will increasingly be the vehicle for generating new ideas and programmes, and its power and influence will continue to expand.** At the same time, the PMO has morphed into something unrecognisable and it, too, will remain central to policymaking. From an average staff size of barely 15, the PM's office today has over 100 people. The eventual aim is to **transfer more and more authority and money to the states, leaving the line ministries responsible mainly for broad, overarching policy issues** rather than micro-managing, say, social welfare programmes at the ground level.

2017: The Electoral Outlook

Having won five state elections in a row, the BJP last year suffered two major defeats. In Bihar, it saw identity politics trump governance – though Nitish Kumar is strong on the latter – but the real shock was Delhi. The rise of the AAP is a challenge because, like Mr Modi, it positions itself as anti-establishment, strongly nationalistic, but at the same time, deeply secular. This means that it could potentially appeal to a much broader constituency than the BJP.

Major state elections early next year will be a test for the BJP, and for Mr Modi. UP will be the most important of these. The few polls that have been made public indicate that, contrary to the initial assessment, the SP is in a strong position. Chief Minister Akhilesh Yadav is popular, and has managed to reassert some semblance of governance in the last few months. With Ms Mayawati remaining a strong number three, the contest is likely to boil down to a straight SP-BSP fight. Simple math suggests that in a 3-4-cornered fight, even a 1-2 percentage point difference can earn 10-15 seats. To achieve this, both the BJP and the SP will engage in some amount of polarisation, but they will also focus on governance issues. Meanwhile, a weak Congress, which can at best hope to reduce the BJP's chances of winning, will focus mainly on slicing off bits of different sections of the electoral base.

In Punjab, the AAP appeared to be headed for a clear victory until about 6 months ago, but today, it is struggling. While it is still ahead of the ruling Akali-BJP combine, the state is probably headed for a hung assembly. The AAP won Delhi on an anti-corruption and law-and-order plank, but today its own MLAs are being arrested at an alarming rate over corruption issues. Its credibility has been badly dented, but the key will be to convince voters that it is somewhat better than the alternative. The problem though is that everyone – including the BJP – is projecting him- or herself as the better, cleaner alternative. This will certainly fragment the vote. More dangerously, in a bid to shore up its support base, the AAP has been flirting with Khalistani groups abroad – which could have major national security implications.

THE NEXT 2.5 YEARS

As the 2017 elections draw nearer, Mr Modi will have to contend with anti-incumbency pressures. Indian voters tend to be violent, throwing out 50% of their MPs and 30% of their MLAs on average – some of the highest rejection rates in the world. Given his strong focus on governance, **Mr Modi will thus have to spend the next two-and-a-half years implementing the many programmes he has unveiled.** These include financial inclusion, the Swachh Bharat mission – which is both practically and symbolically important to people – 24x7 power, welfare reform, and so on. What is crucial is for people on the ground to see change on a bigger scale than they already have – even if that means that their neighbours are better off than they once were.

All considered, India – and the world – is likely to see a very different Mr Modi through to 2017: more confident about the team he has in place, **focused almost solely on implementation** issues – including, critically, the GST, which will bring some chaos with it – and going on far fewer foreign trips. Aside from having to attend the major multilateral summits, and with the exception of a few key countries (especially West Asia, with its oil and gas and its sovereign wealth funds), the Prime Minister will stay mainly at home.

Dealing with the Hindu Right

Arguably the biggest problem Mr Modi faces – and a very serious image issue for him – is what to do with the Hindu Right, including the self-styled *Gau Rakshaks* and other fringe elements. Media coverage may suggest otherwise, but in the last two years there has been *no increase*, and in fact, there has even been a small *decrease*, in anti-Dalit violence. What has changed, though, is the *nature* of this violence, the widespread attention it has received, and especially, the lack of denunciation from the top. Mr Modi's strategy so far has been not to say anything either for or against these fringe groups, leaving it to the states to deal with them. This fits in with his federal outlook, but equally, it maintains his distance from what takes place on the ground. While this has worked to some extent – especially with the more 'established' BJP-run state governments like MP and Chhattisgarh, which know how to bring matters under control – it has been less successful in places like Maharashtra and Haryana, with their rising incidence of vigilantism. Only now is Mr Modi taking a stronger position, especially on Dalit violence, but unless he sees bad electoral consequences, he is unlikely to go much further on this issue. Moreover, he is driven at least partly by electoral calculations vis-à-vis UP. In the PM's view, at the end of what will hopefully be 10 years in office, the BJP will be India's one main national party – even its 'natural party'. Without at least some part of the Dalit vote, this is simply not possible.

Foreign policy

The other big challenge for Mr Modi in the next few years will come from abroad. For someone who was largely indifferent to the subject when he assumed power, he quickly developed a liking, even a certain talent, for foreign affairs. His confidence grew, and he found common ground, in particular, with President Obama. Crucially, too, he has brought a new assertiveness to Indian foreign policy. Breaking from precedent, the Prime Minister plays entirely on the 'front foot', saying in public what he believes – and he is almost never afraid to take risks. To a degree, however, he has benefited from an external environment that has, for the most part, remained benign. It is the *next two years* that will be the real test of his foreign policy.

Pakistan represents the most serious challenge of all, with the bilateral relationship rapidly falling off the rails. Kashmir lies at the very heart of the conflict, and, with its people becoming increasingly alienated, India is struggling to consolidate the peace process. Fuelling the insurgency today are rural and small-town dwellers, many of whom have either never had a job, or have done nothing but menial work all their lives. Tourism in the Valley has collapsed, there are no employment prospects to speak of. Nor can a Kashmiri Muslim hope to find a job or even rent a home anywhere else in India – barring, perhaps, in the Southern states. The ruling PDP-BJP alliance is losing credibility, which is benefiting the more hard-line elements, including the Hurriyat, and there is no end in sight to the ongoing cycle of violence-crackdown-curfew-lift the curfew-violence-crackdown. In fact, the security forces, and even some elements within the BJP, believe that the only thing that will work is a bloody crackdown that kills off the insurgency, at least for a few years.

Although Mr Modi and Nawaz Sharif enjoy a good relationship, the Pakistani Prime Minister has no real power, and it is the Army Chief who effectively runs that country. From the Army's perspective, **India has crossed a red line by providing arms to Afghanistan** – a country it treats as its own backyard. Perhaps the only thing holding it back from setting the Line of Control (LoC) ablaze again is China. In particular, China is worried about the USD 46 billion China-Pakistan Economic Corridor, part of which runs through Pakistan-Occupied Kashmir (POK). It is worried, particularly after Mr Modi's reference to Baluchistan in his Independence-Day speech, that India will 'cause trouble' in ways that threaten the Corridor. Xi Jinping regards the 'One Belt One Road' (OBOR) project as a way of winning 'hearts and minds' abroad, and of alleviating China's economic problems at home. An Indo-Pakistan conflict *now* would endanger an important segment of OBOR, and China has long sought to keep away from the bilateral conflict. Even for the hardline Pakistan Army, USD 46 billion is too much of a prize to throw away, so it has held its peace. That said, if India continues to refuse to endorse OBOR, as Mr Modi has clearly indicated it will, at some point, China may lose patience, giving Pakistan the go-ahead to strike India.

QUESTIONS AND ANSWERS

On the situation in the South China Sea:

With the Obama administration pulling back from large parts of the globe, and with ASEAN falling apart as a united front, China saw an opportunity to encroach on the South China Sea (SCS). One-third of the SCS has been irrevocably lost to Beijing, and even as the US is now suddenly 'back in play' in the region, its credibility is badly damaged. Asked to participate in joint patrols of 'Chinese' waters, India refused flat out, and even treaty allies like Japan, Australia, Philippines are backing out. The Indian system is extremely worried that in the next 25-30 years, China will follow a hard-line nationalistic school of thought that seeks to position it as the dominant power in Asia, just as it was during the Ming and Tang dynasties. It is likely to use military power to demonstrate that it is *Beijing* that is now in charge, and that the US is 'finished' in this region. In many ways, China's appetite is only growing with the eating, and plainly, it has been remarkably successful in the SCS. India now takes it for granted that, in the next 10 years, China will begin to exert itself not just as a force in the Pacific, but as a global maritime power. China even issued a white paper stating that the sea-lanes of commerce running from the Persian Gulf to the Straits of Malacca – a channel running through Indian Ocean – is a core security concern for the country, and in that respect, it will not care if this leads to problems with India. Nor will India be in much of a position to resist a concerted Chinese military and economic 'incursion' into this region. It simply does not have the power or influence, especially with the US pulling out, to prevent China from 'picking up' many allies. This is why Mr Modi has made it a point to foster relations with a number of Indian Ocean countries, including Oman, the Seychelles, and Mozambique (which is the destination for huge outbound Indian FDI, and whose intelligence and armed forces work closely with India). India is also building as many as 43 warships at the moment; it is trying to ramp up its submarine force, despite continuing problems; and it is working closely with the US on building aircraft carriers, which will possess 'next generation' technologies. However, all of this will take 10-20 years to come to fruition.

On the strategic relationship with Russia:

China is a big factor in the Indo-Russian relationship today. Sanctions imposed on it by the West, along with crashing oil and gas prices, have left it struggling economically, and its dependency on China is only growing. India cannot buy from Russia on the scale China does, but India has invested large sums in Russian PSUs in an effort to give the country a 'lift'. The biggest constraint is that Russia now asks Beijing about everything, including arm sales, and it

even sells the same weapons to China as it does to India. This cannot work from a longer-term strategic perspective, so even though the two governments 'like' each other, Russia continues to box itself in geopolitically, and only China can help it right now. Thus, it will be forced more and more into China's orbit.

On Donald Trump's chances of winning the election:

America's electoral college system is such that being first-past-the-post in each state is what determines victory. A candidate requires 273 electoral college votes to win, and on that count, Hillary Clinton is far ahead of Mr Trump. His support is concentrated in a handful of states, to the extent that he could win the popular vote and still lose. Crucially, states like Texas, Georgia and Virginia – which are usually 'solid red' – are either in play or are firmly in Democratic hands. Moreover, the Libertarian party is likely to take 6-7 percentage points out of Mr Trump's support base. What gives him a *chance* to win is the white working-class vote, which is still the largest segment of the population. Turnout rates are usually low – 50-55% – in this demographic, but if they were to turn out in large numbers (upwards of 70%), they would overwhelm everyone else's vote, and Mr Trump would win. One reason why he is being deliberately provocative, and getting the 'liberals' (who the working class hate) to attack him, is to make these people even more angry, pushing them to come out and vote for him. Mrs Clinton's problem is her remarkable unpopularity, which could cause a lot of people to stay home, costing her more than him. The Clinton camp has the college-educated whites and the minorities on its side, but minorities often do not vote, and African Americans are unlikely to support a white woman. Turnout will be the key battle, and Mr Trump is ahead on this score.

On the BJP's second-rung leaders:

Mr Modi's strategy is to make the Chief Minister's office the training ground for such people, and in his view, it is better to be on the ground, running a state of 40-50 million people, than doing an office job in Delhi. The BJP has more capable people than the Congress in any event: individuals like Vasundhara Raje, Shivraj Singh Chouhan, Raman Singh, and so on. Rajasthan aims to be a manufacturing hub, and the Prime Minister is backing the CM up on this. On the other hand, some BJP CMs have been less than impressive. Karnataka, which could fall to the BJP, will be another testing ground for future leaders.

Why would Mr Modi risk rolling out the GST when it is likely to create problems?

This is because one group of people – Indian consumers, who also happen to be the largest electoral constituency – will gain. There is likely to be a big drop in prices – as much as 15-20% in 6-7 key sectors. A combination of durables prices falling and interest rates easing (on account of moderating inflation) will tilt the balance in the government's favour. Further, although SMEs are in bad shape today, the government is preparing to recapitalise PSU banks on a large scale. Once that happens, credit to SMEs will start to rise again. Economic reforms will also get a fair amount of attention from the Prime Minister. Combining all these factors, a bit of political polarisation, and the fact that there is no alternative to the BJP – the Congress, for instance, has no real second-rung leaders – circumstances are likely to play in Mr Modi's favour.

Disclaimer

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