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Markus J Beyrer says it is essential to speed up the process of removing the remaining barriers to the single market

Fraser Cameron examines the implications of Trump's victory and looks at how Europe should react

To leave the EU cleanly the UK must make sure that this path leads to unilateral free trade, Patrick Minford argues

THE GLOBAL TRADE PLATFORM

A new world order?

There is one theme in common between the recent electoral results in the United Kingdom, the US and Italy. All outcomes drew strength from the growing hostility to global government, global treaties, and military interventions. The assumption of superior wisdom and moral right adopted by a gilded elite flitting between the large corporations, quangos and governments of the advanced countries, claiming they know best and should be allowed to get on with it unchallenged, has been questioned.

The established parties of the centre have seen their popularity plummet. Even the presidential election in Austria was between two extremes, with the Greens emerging victorious. The establishment parties of the centre didn't feature. In Italy Matteo Renzi fell short to non-establishment parties. It seems that on virtually every occasion when voters have been directly consulted, they have rejected the standard-bearers of the gilded elite.

The electorates remembered the disasters the elites and their experts have visited upon them; the banking crash and financial crisis, the euro with the on-going slump in southern Europe, the foreign policy disasters in the Ukraine and the Middle East.

The poster project of the elite, the European Project, has not been properly explained to voters, and the root cause of virtually all Europe's economic and political ills was the premature introduction of the euro, a typical case of putting the horse before the cart. Structurally, economies were growing apart, not together, with the eurozone ever more precariously divided into surplus and deficit nations.

The failure of monetary union has ratcheted up the alienating process of European integration, destroying faith in the competence of European policy makers. It increased the number of migrants by creating a depression across great swathes of the Continent. Free movement became a substitute for enhanced trade and national economic advancement.

As with monetary union, imposing free movement on nations of widely different incomes, wealth, and welfare systems, was always bound to cause problems, resentment and a consequent political backlash. Unless things change, others will at some stage follow. Italy or France will be the next shoe to drop.

Before long, the euro could be in tatters. Could the EU itself survive the collapse of its greatest project, along with the consequent recriminations and financial disputes between northern and southern members?

There are many other questions that have to be answered. Western politicians struggle to explain why lower incomes remain depressed and why so many jobs have been exported abroad. Why have their policies benefitted the rich and corporations above everyone else? Why should people trust the economic and political judgements of the World Bank, the EU, the IMF and the rest when they have got so many forecasts wrong?

All stakeholders in the global economy need to reach out to the populations with answers and plans that will ensure an equitable growth in wealth going forward. Otherwise, the electorates have shown that they will vote for the populists rather than the corporatist technocrats. That would not be good for the future of globalisation, or the European Project. ■

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Less Red Tape...
More Red Carpet

Successful digital businesses demand a jurisdiction where the financial and regulatory environment supports the need for speed and security in every aspect of corporate set up, activity and growth.

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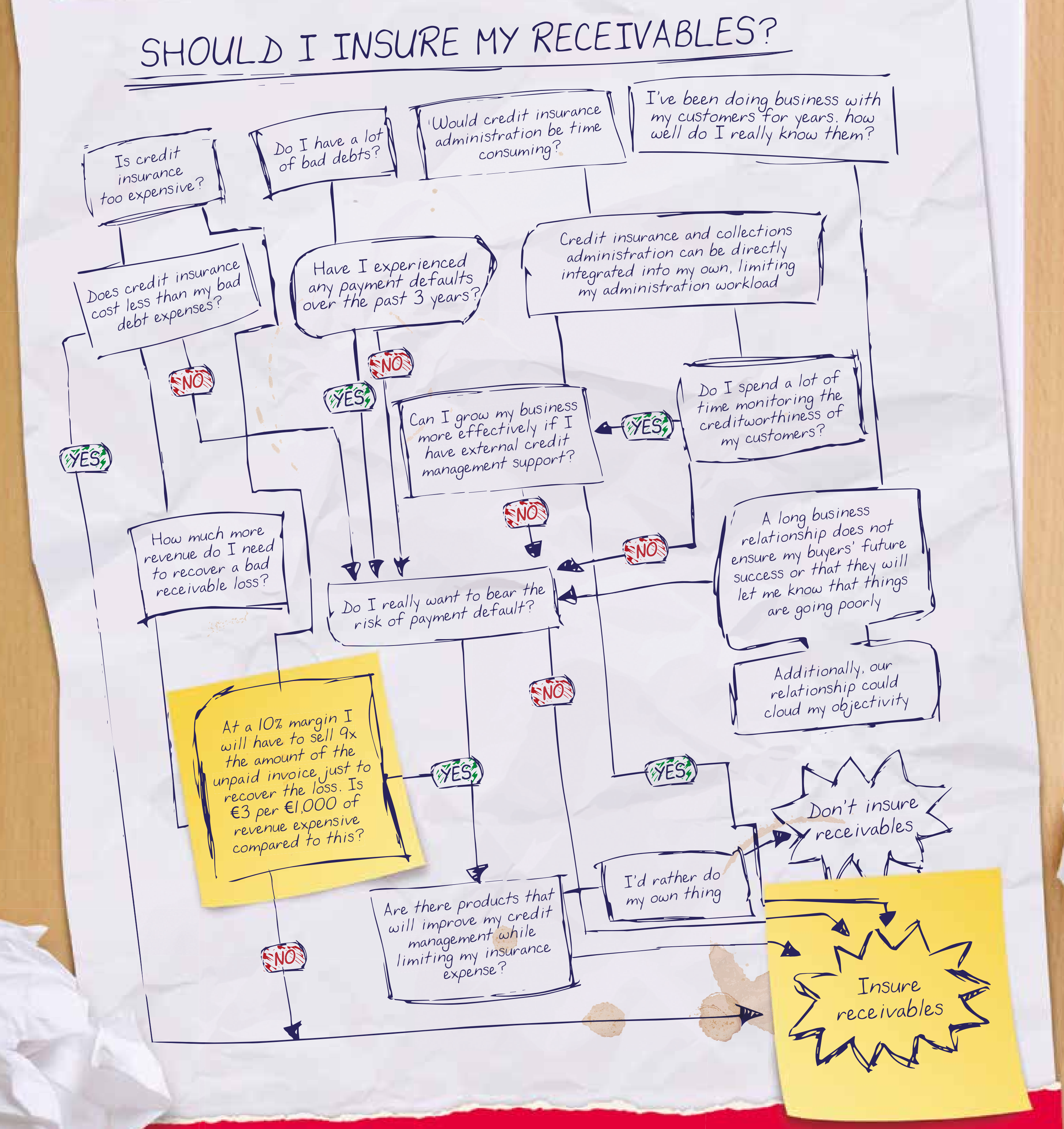


Improving the investment climate in Europe

Markus J Beyrer is BusinessEurope Director General

Europe remains the major global destination of foreign direct investment, but it is losing ground to other destinations. The European Union with all its strength – millions of skilled workers and innovative technologies – is still perceived as a complicated and expensive place to invest in. Investment levels in our continent have dropped significantly during the financial and sovereign crisis. The difference between current levels of investment and their projected level - the investment gap - remains wide: it is estimated at around €260 billion in 2014.

Part of the explanation behind the weak investment in Europe is related to the different crises we are facing, including high uncertainty in the political, economic and regulatory fronts. However, many problems are structural. The cost of doing business in Europe remains penalised by higher taxes, energy prices and non-wage labour costs than competing regions. The European Single Market is still incomplete and many existing barriers hamper companies' cross-border investment and operation.

However, the investment situation is slowly improving (Figure 1). Currently, over 80% of BusinessEurope member federations expect businesses to increase investment rates over the coming year, compared to just over 50% when surveyed in spring 2016. But the recovery is still timid. If we are serious about boosting investment in Europe, we must take effective measures to address existing barriers to investment in Europe. The business community counts on the European policy makers to set a stable and attractive business environment.

Investment Plan for Europe

In November 2014 the European Commission launched the Investment Plan for Europe aimed at unlocking public and private investments in the 'real economy'. This plan, welcomed by businesses, focuses on three key pillars:

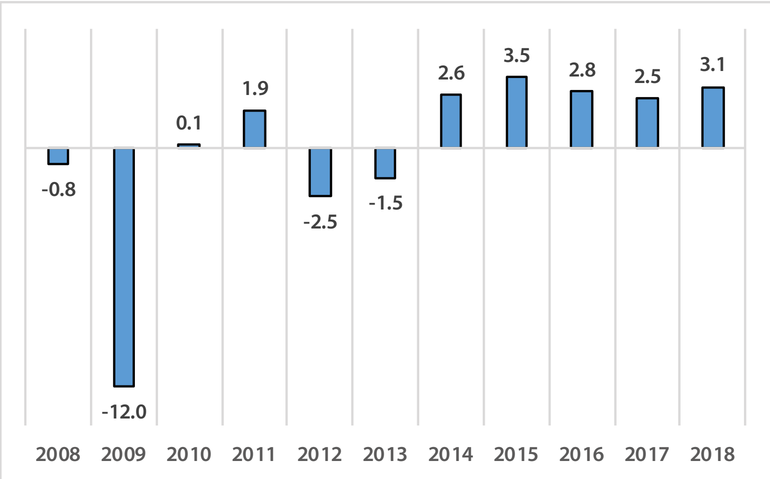
1) The European Fund for Strategic Investment;

2) technical assistance and visibility to investment projects; and

3) removing obstacles to investment. It is still early to evaluate the full results of the Investment Plan, but we can already see some of its impact.

The European Fund for Strategic Investment (EFSI) is a guarantee which aims at mobilising private investment through small amounts of public investment. It helped raising public attention and the political debate regarding the urgent

Figure 1. Total investment growth (% change on preceding year)



Source: European Commission, AMECO Database

need to boost investment in Europe. Moreover, it promotes a greater calculated risk culture and a new mentality regarding the use of EU funds. As an innovative instrument, it opened new windows and opportunities for riskier projects that would have not taken place in its absence.

The technical assistance is helping some projects off the ground and the project portal is supporting large projects to find investors.

Finally, regarding barriers to investment, while some progress can be noticed in the priority areas of the Commission such as the digital single market, energy union and capital markets union, we need further and quicker action in other areas and at both European and national level. It is essential to speed up the process of removing remaining barriers to the single market and remove administrative burdens for entrepreneurs. Only by reducing existing barriers to investment in Europe will we be able to attract investment in a long-term perspective.

"It is essential to speed up the process of removing remaining barriers to the single market and remove administrative burdens for entrepreneurs"

Extending funding instruments

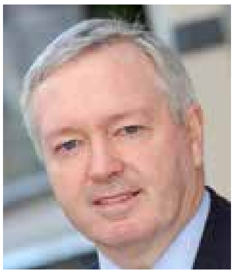
European business welcomed the proposal brought forward in 2016 to extend the EFSI and to substantially increase its financial capacity. However, the revised plan must be developed on the basis of the most recent evaluations and it must draw on the lessons from implementation so far.

It became clear that the EU member states with stronger technical and administrative capacity are getting greater benefits from the EFSI, especially when it comes to large-scale projects. For example, about 63% of total EFSI financing within the Innovation and Infrastructure Window was granted to three countries. Thus, more action is needed to support those EU countries lagging behind. This can be done in particular by greater technical assistance and capacity building at national and regional level.

The very dynamic response by financial intermediaries and by small and medium-sized enterprises (SMEs) to the SME Window show that they are well designed and should be further deployed. In November 2016, the new European Venture Capital Fund of Funds was launched. It will provide more venture capital to high-growth SMEs and will help mobilising private finance for venture capital in Europe. The business community also supports planned development of new equity products under the SME Window in the future.

The Advisory Hub is another tool with great potential which should become a more proactive platform in supporting the EU member states to take forward projects, and a real facilitator of cross-border projects which still face substantial barriers. In particular, the Hub and EIB operational staff should help to identify barriers in the roll-over and implementation of different projects, and understand where procedures involving multiple national approvals can be simplified. This information should then be properly used in advancing in the regulatory developments.

And finally, we believe that the market-based logic of the EFSI is a key principle that should be defended. The projects should continue being selected according to their merits, aligned with EU priorities, but without prioritizing specific sectors or regions. ■



Trump triumphs – Europe shocked

Fraser Cameron is the Director of the EU-Asia Centre and a former EU official

Like an earthquake Europe is still struggling with the aftershock of the Trump election victory. Like the chattering classes inside the Beltway, European chancelleries and the Brussels bubble simply could not believe that Trump, someone with no previous political experience, could defeat a seasoned pro like Clinton. They had all been told by their embassies in Washington that Clinton was a certainty. She was someone they knew, someone who knew Europe and thus there would be a strong degree of continuity in US foreign policy.

Trump, however, is unknown to EU leaders and has ties to far right-wing parties such as UKIP and the Front National rather than mainstream European parties that traditionally form governments. Throughout Europe there is widespread concern at what Trump's victory will mean for transatlantic relations, the multilateral system and the rise of populism.

Reactions

While shocked EU leaders decided to be cautious in their messages of congratulations. Presidents Tusk and Juncker reminded Trump of the common history and shared values between Europe and America and emphasised the importance of working together on trade, terrorism, climate change, and Russia. EU foreign policy chief Federica Mogherhini said that the depth of the transatlantic relationship 'went beyond temporary changes in the political landscape' while NATO Secretary General Jens Stoltenberg warned that given the scale of the security challenges 'this is no time to question the value of the partnership between Europe and the United States.'

Angela Merkel had been strongly criticised by Trump during the campaign describing her policies on refugees as a 'catastrophe.' The German chancellor now laid out a list of basic principles which were a pre-condition for cooperation with Trump – 'democracy, freedom, respect for the law and for human dignity irrespective of origin, skin colour, religion, gender, sexual orientation or political conviction.' Francois Hollande who had said that Trump 'made him feel sick' said that Trump's victory 'opens a period of uncertainty.' The Dutch and Belgian PMs sent neutral messages of congratulation despite the negative remarks Trump had made about their countries. Hungarian Prime Minister Viktor Orbán was the only exception to this EU trend stating that DT's victory was 'fantastic news.'

British PM Theresa May had also been critical of Trump in the past as have her closest advisors. But in her phone call with Trump a few days after his election she emphasised the historic 'special relationship' and reminded him of the close ties between the US and UK on trade, security and defence. Trump invited May to visit him 'in the near future' and stated that the UK would be at the front, not the back, of the queue for a new trade deal when it left the EU. UK-US relations will not be easy, however, as Trump's views on Russia, free trade and climate change are totally different from that of Britain.

Trump's relationship with UKIP chair, Nigel Farage, further complicates matters for the UK. Farage, who spoke at one of

Trump's campaign rallies, was the first European politician to meet Trump after the election. In a staggering breach of protocol, Trump later tweeted that Farage would make a great UK ambassador to the US – a message that caused great annoyance in London.

Russia was of course delighted with Trump's victory. Putin said that 'it was not our fault that Russian-American relations are in such a poor state. But Russia wants and is ready to restore full-fledged relations with the United States.'

Implications

Behind the scenes EU leaders and their officials are trying to assess what are the implications of Trump's victory in various policy areas. During the campaign Trump questioned the usefulness of NATO, the American alliances with Asia, free trade and climate change. In the days after his victory Trump started to distance himself from some of these promises. He said he was not going to 'lock up Hillary,' not going to repeal Obamacare, and not pull the US out of any alliance commitments.

There is little doubt that Trump will follow a more realist foreign policy than the liberal internationalist approach of the Obama administration, an approach that most EU leaders preferred. Mogherini called a special meeting of foreign ministers on 13 November to discuss the possible impact of a Trump administration on the major issues – Russia, Syria, Iran, climate change.

"One thing is sure – Europe is in for a very bumpy ride with Donald J Trump in the White House"

One minister said that 'EU foreign policy was now in damage limitation mode'. He feared that Trump might be willing to work with Putin and Bashar al-Assad, to defeat Islamic terrorism, at the expense of moderate Syrian forces. Another warned that Trump's support for other authoritarian leaders including Putin, Duterte and Erdoğan would be 'very worrying' for the EU. It was very likely that the US would now stop promoting human rights and democracy which would place an additional burden on the EU.

Certainly Trump will not be an easy partner for the EU about which he knows almost nothing. He prefers dealing with national capitals to any international bureaucracy. The same

goes for most of his likely foreign policy team. EU officials who have spoken with Trump advisors report that they are contemptuous of multilateral institutions and ignorant on many key issues.

Trump himself has little background or experience in foreign and security policy. He will be severely handicapped by the refusal of the top hundred republican experts to serve in his administration. He is very much an American nationalist. He talked of pulling the US out of the climate change agreement and tearing up the Iran nuclear deal. But in office he may be content with some minor changes.

Although he has never met Putin several of his associates have and he has talked favourably about Putin as a strong leader. But whether this translates into a geo-political deal is difficult to say. He could accept if not recognise that Crimea is part of Russia. But he cannot allow Russia to control Ukraine or menace the Baltic States.

On China he has little knowledge and little interest apart from trade. He has criticised China's unfair trade practices for many years and promised to impose high tariffs on China and name it a currency manipulator. But again campaign rhetoric and action are different. The same applies to his remarks about Korea/Japan and nuclear weapons. This was a threat (similarly with NATO) to pressurise allies to pay more. But he will not reduce the basic military guarantee.

One reason for him to maintain the status quo is the presence of many neo-cons and right-wing republicans in his entourage who are stridently anti-communist and who would oppose any moves to cosy up to Putin or weaken US security guarantees to Asian allies as they argue this would only benefit China.

Trump has already stated that one campaign pledge will be maintained, an end to US participation in the Trans Pacific Partnership (TPP). This is regarded as a major blow to the US pivot to Asia and many Asians are now hedging their bets with China. Speaking at an APEC meeting in Peru, the New Zealand PM, John Keys, jokingly said that the only way to save the landmark trade deal might be to rename it the Trump Pacific Partnership.

The Transatlantic trade talks (TTIP) were already on life support but now they can be pronounced dead. Trump has also questioned NAFTA and trade with China which he accused of being a currency manipulator. He castigated all trade deals as 'unfair to America' and responsible for the US losing 25 million jobs. In office he will find out just how interconnected the US economy is to the rest of the world and how difficult it will be to re-negotiate trade deals that took years to complete.

The Trump team face an immense task as they will need to fill around 4,500 positions within government during the next three months. The most powerful figure is likely to be Vice President-elect Mike Pence, an arch-conservative, who chairs the transition team and will be a strong figure in the White House (like Dick Cheney). Trump's family will also play a prominent role with three of his children (Ivanka, Eric and Donald Jr.) in an extended advisory committee.

But tensions will be inevitable and many predict that there will be constant in-fighting between Reince Priebus who will be Trump's chief of staff and Steve Bannon of Breitbart News who will become chief strategist. Although domestic issues (cutting taxes, reducing immigration and reforming health care) will take priority over foreign policy no US President can avoid taking a lead role in global affairs.

How should Europe respond?

The biggest concern in Europe is that Trump's victory will give a huge boost to populist forces throughout the continent still celebrating the unexpected Brexit result in the UK. The far-right expects to do well in the upcoming elections in 2017 in France, the Netherlands and even Germany. The biggest prize would be the Marine Le Pen winning the French elections. It was this fear that led the centre-right to choose the more right-wing Francois Fillon as the candidate most likely to defeat her.

Although these elections will preclude the EU taking any big new decisions in 2017 they are already starting to prepare the ground for some important changes. The first field is defence. If the EU wants to get the attention of Trump it will have to earn it, first and foremost by taking more responsibility for its own security. Trump's campaign threat to stop defending NATO members unless they pulled their weight struck a chord with American voters and Congress. Given what Europeans spend on defence and the number of men and women in uniform it should be able to defend itself. The December European Council will agree modest plans to boost defence cooperation.

The second field is trade. If TTIP and TPP are dead then the EU will have to speed up its own trade deals with partners from Mexico to Japan. Given the problems of ratifying the deal with Canada (CETA) this will not be an easy task. But Trade Commissioner Malmström is determined to forge ahead on the bilateral front. She has devised a formula to sidestep the market economy status (MES) dispute with China and hopes to conclude an investment agreement with the Asian giant next year.

The third field is economic growth. European leaders understand that they must create more jobs especially to reduce the unacceptable high levels of youth unemployment. But there are still major policy disputes with Merkel continuing to promote austerity against the desire of southern EU members to provide a stronger fiscal stimulus.

Finally, Europe has to deal with the increasing range of problems relating to its neighbourhood. There are likely to be fundamental differences in approach with Trump on how to tackle Syria, how to deal with terrorists, how to deal with Russia and possibly Turkey. And there is the continuing problem of how to deal with the flow of refugees from Africa, the Middle East and Afghanistan.

Europe will not be at the top of Trump's in tray and he will certainly not make Brussels his first overseas trip. There is no one in his entourage who knows anything about the EU. But if he starts to mess with international trade agreements and breaks WTO rules then he may have to take a quick course in EU powers in the trade field and competition policy. And the EU will have to stand up to Trump if he seeks to tear up the agreements on Iran and climate change. One thing is sure – Europe is in for a very bumpy ride with Donald J Trump in the White House. ■

Trumped up trade: the end of an era

Sebastian Dullien is senior policy fellow at the European Council on Foreign Relation and a professor of International Economics at HTW Berlin, the University of Applied Sciences

The days of US fiscal restraint, and of global trade growth outpacing GDP growth, are now over. Donald Trump's tough talk on combatting China's 'unfair' trade policies have led some to fear that he will immediately slap a punitive tariff (which could be in the region of 30-45%) on all Chinese imports. This would trigger a major trade war, pushing up consumer prices and casting the American economy into recession.

According to these fear-mongers, Trump is also likely to fill the two vacant seats on the board of the Federal Reserve with candidates sharing his criticism of current Chairwoman Janet Yellen, creating massive uncertainty in financial markets.

Others argue that, on the contrary, Trump's inexperience with public offices will lead to four years of inaction in the oval office.

Both scenarios are possible, but the first signals from both the Trump camp and the Republican party suggest that he will refrain from the most dangerous policies but follow through with his agenda in broad terms, supported by solid Republican majorities in both the House of Representatives and the Senate.

As we shall see, this would fundamentally change the economic landscape for Europe.

From a macroeconomic point of view, the age of fiscal restraint in the United States is set to end. All of Trump's policy proposals include an increase in government debt. Trump has consistently promised a strong increase in infrastructure investment and major tax cuts, without specific plans for how to pay for either.

It is not clear whether Trump will find a majority in Republican-controlled Congress for his infrastructure plans, but getting a majority for tax cuts should be a no-brainer. As under Republican presidents Ronald Reagan and George W Bush, it is likely that the GOP will believe the rhetoric of supply-siders and hope that tax cuts will be 'self-financing' – that tax receipts will rise despite the rate cut, because of the economic growth benefits of lower taxes. But history teaches us that it is more likely that tax cuts will cause the deficit to balloon.

Higher government deficits tend to lead to higher interest rates, as some of the burden is taken from the Fed to keep interest rates ultra-low to stabilize the economy. This in turn has consequences for the rest of the world: The US dollar is likely to appreciate.

At first sight, this sounds positive for Europe: a dearer U.S. dollar means better price competitiveness for EU companies and hence potentially more exports.

However, here, Trump's macroeconomics will interact with his stance on trade, which has been relatively consistent and clear. Trump has promised to ditch the Transpacific Partnership (TPP), a free trade agreement already completely negotiated with a number of Asian countries, renegotiate the North American Free Trade Agreement (NAFTA) with Canada and Mexico and only accept future trade agreements which are 'good for America'. In his speeches, he has repeatedly cited studies on how the US trade deficit translates into jobs lost in the United States, and issued calls to label Beijing as a 'currency manipulator' in order to impose punitive tariffs against Chinese goods.

This has two consequences for Europe: First, the United States' benign neglect of its current account deficit will most likely be over. When the US criticises China (which has a current account surplus of about 2.5 percent of GDP in 2016), the German finance ministry should be worried given the German current account surplus of almost 9 percent of GDP.

The euro-area should be prepared to have its macroeconomic policy stance questioned for the same reason, even if its surplus is not as high as Germany's. If the dollar appreciates and European car manufacturers gain ground in the US market, Europe should be prepared to be confronted with protectionist measures (just as Japan was in the 1980s when the US dollar surged on account of Reagan's deficits).

The second era that Trump's presidency is likely to end is the longstanding trend of higher global trade growth than GDP growth. From World War II until 2008, global GDP grew about 8 times, while world trade grew by more than a factor of 30. In the 1990s that trend was driven by the WTO's multilateral trade liberalization. Later, when multilateralism faltered, large regional trade agreement such as NAFTA and the European Union's single market project propelled forward global trade.

Multilateral trade negotiations have long since ground to a halt. And given that President Trump will not put his weight behind WTO talks, they will be irrelevant for years to come. However, after the EU's CETA debacle, regional trade integration has also likely reached its limit.

Trump will almost certainly shelve TTP, and will not be willing to compromise on details of the Transatlantic Trade and Investment Partnership (TTIP). With support for TTIP already weak in Europe, this means the end of further transatlantic trade integration.

"European initiatives for further WTO progress are set to be futile if the US, still the world's largest economy, cannot be brought along"

As it stands, Europe is ill-prepared to react to these developments. Given the disastrous CETA and TTIP debate, Europe is not in a position to launch its own global trade initiative. European initiatives for further WTO progress are set to be futile if the US, still the world's largest economy, cannot be brought along.

As helpless as it sounds, the only thing Europe can do in response is to strengthen domestic drivers of growth. This means, first and foremost, designing a strategy which does not rely on external demand to get the economy going again and bring down unemployment. Reforms to speed up economic growth (such as cleaning up the banking system) will be part of it, but if Europeans want to prevent a growing current account surplus (and hence limit the risk of a trade conflict with a Trump-led United States), they will have no option but to move away from the austerity stance of recent years. By contrast, attempts to rely only on improved competitiveness to increase economic growth will lead to a larger European trade surplus and more potential for transatlantic conflict. ■

The post-Brexit fandango

Patrick Minford is Professor of Applied Economics at Cardiff Business School and co-chair of Economists for Brexit

In the referendum debate Remain claimed that not only would the economy go into recession if voters foolishly chose Brexit but even the second quarter would be hit by the polls showing a good chance of Brexit. This last is now conveniently forgotten by Remainers, now that the second quarter has shown a more than 50% rise in growth on the first quarter.

This second quarter was the only hard data on 'Brexit uncertainty effects' till now. Now we have the third quarter's preliminary GDP estimate, at 0.5% solidly in the 2-3% range we expected without Brexit: there is no observable Brexit effect on the short-term outturn as we expected. Probably the estimates for manufacturing and construction will be revised upwards, as the estimated falls in these are at variance with the latest Purchasing Managers' Indices (PMIs), all above 50%. The surveys we have so far show that actual output and orders remained on their previous track but that 'confidence' took an early hit and subsequently recovered.

Experience with past surveys when the media are full of gloom and doom is that there is a disconnect between 'confidence' about the general economy and what people do in reaction to their own circumstances. Today ordinary households' situation has never been better: real disposable incomes are rising at over 3% and employment levels are at a record. Credit is easily available; and the Bank has just made that easier still. The pound has dropped around 17%, as it usually does when the UK hits a bump in the road, and this represents a far bigger monetary stimulus than the Bank's 0.25% cut in interest rates. There was no need for Philip Hammond to deviate from fiscal prudence in the autumn; and he hardly did.

The UK economy will certainly survive any short-term bumpiness; most forecasts have become more optimistic already. The real focus of debate should be on where Theresa May's government is taking our trade and other economic policies in the long term. She and her ministers have made some good noises about free trade and pro-business regulation, admittedly larded with some talk about less attractive intervention in corporate affairs.

These noises were turned into explicit forward commitments at the Conservative party conference in October. Current talks with small business highlight the key fact that smaller firms are less able to carry the heavy costs of social regulation so favoured by the EU Single Market; for them a UK-run regulative system that has always understood small business is much to be desired. Large businesses can lobby and have the staff resources to cope with endless 'compliance'. But in the UK over half of our employment is in small businesses; this too is the most dynamic and innovative part of our economy.

Our future trade framework is the heart of the matter; on it depends how far the UK can pursue the road of self-government, the control of laws and borders demanded by the Brexit majority. It is good to see Liam Fox getting off to a strong start negotiating draft free trade agreements, FTAs, with countries around the world. These countries will then lower their tariffs and trade barriers against us, and we ours against them.

But the gain that we get from this does not come from their lowering their barriers against us, contrary to what is generally thought. When they do that there is a negligible effect on the world prices of the things we sell, because even the largest of these countries, such as the US, buys only a small proportion of the world supply of these products; when they buy a bit more from us, and a bit less from some other countries due to some new FTA, their total demand for the product barely changes, so nor does the world price of what we sell. So we gain nothing and sell the same output overall.

No, the gain we get from these FTAs is that we remove our tariffs and other trade barriers on them; this means that our consumers pay less for them and so enjoy a rise in their standard of living. Once these high-visibility trade agreements are signed we should make sure that we trade freely with all the rest of the world, however we can arrange it. Our ultimate aim should be to achieve unilateral free trade with all countries of the world. As this implies we could actually short circuit all these FTAs and simply go at once to unilateral free trade, as has been done by countries such as New Zealand and Singapore; even China has unilaterally brought down its tariffs to aid its development.

It is this that lies at the heart of our EU trade relationship. The EU Single Market is highly protectionist which of course is why there has been so much fuss about being outside it. This protectionism raises the prices of both food and manufactures by around 20% to UK consumers, implying an 8% rise in their overall cost of living. While this is nice for farmers and manufacturing firms who make higher profits, the losses of consumers are far greater. When we leave the EU, protected prices are replaced by world prices. This generates healthy competition which pushes up productivity, forcing firms to go 'up the value chain' towards more hi-tech methods; we can also help them to access the Single Market from the outside as the US and Japan do. The gain in GDP and living standards according to my standard world trade model is about 4%; on top of that there are the gains from replacing EU regulation with our own and from regaining control of mass unskilled immigration which is costly to the economy and politically toxic.

As for the City, it too will gain greatly from having its regulations made in free market London instead of a Brussels hostile to 'Anglo-Saxon finance'. The City fears EU protectionism but it need not worry. Suppose Brussels withdraws 'passporting' or 'equivalence' and the ECB declares that euro-bonds must be cleared in Frankfurt. Just as with not having an FTA, the City will sell less in the EU and more elsewhere.

The implication of all this is that the main remaining task of Brexit policy is for the Ministry of Brexit under David Davis to withdraw us from the Single Market and take us to unilateral free trade, to reap these huge gains from eliminating EU protectionism and regulation.

Mr Davis would like to sign some broader FTA with the EU; I would like to wish him luck but the bald truth is that, as David Cameron found out, the EU has virtually no flexibility when each of 27 countries wields a veto. He should save us all time and policy delays by simply walking away from the EU, lock, stock and barrel. At that point Liam Fox can pursue a free trade policy with the rest of the world.

The incredible shrinking 'Brexit recession'

Astonishingly the July 2016 consensus forecast growth rate for the UK in 2017 was 0.6%, close to a recession. Forecasters generally followed the UK Treasury's lead in projecting a 'doom and gloom' scenario after Brexit. Of course, now that we have had the strong recent figures for retail sales, the continuing strength of employment and of the latest Purchasing Managers Indices (PMIs), we will no doubt see these forecasts being raised and we expect this raising to continue.

In our own post-Brexit forecast made on May 10th this year, as taken from our Brexit pamphlet of that time (*The Economy after Brexit*, downloadable from www.economistsforbrexit.co.uk), we projected growth at 2.7% for next year. Our forecast today also takes account of the reactive fall in sterling, larger than we assumed then but perfectly consistent with the idea of a downward adjustment necessary to accommodate the needs of faster post-Brexit growth and the reduction of our current account deficit.

How did our forecast come to be so different from that of the Treasury and the rest of the consensus?

First, we made a different assumption about the Brexit policies that would be followed: we argued that the optimal policy would be for unilateral free trade as well as the UK taking over all regulatory functions from the EU and we said that since these policies were optimal they would be chosen. This meant the abolition of the heavy EU protectionism of farming and manufacturing, as well as a programme of liberalisation of industrial regulation: the long-term gains from the trade liberalisation came to 4% of GDP while those from deregulation were put at 2% of GDP.

"... the UK has now reached the cross roads where it has decided to leave the EU cleanly. Now it must make sure that this path leads to unilateral free trade and not to some half-hearted UK protectionist substitute for the EU's damaging protectionism"

By contrast the consensus assumed that both the EU levels of protection and EU regulations would be left intact. Making these last assumptions gave varying long term negative effects to GDP. Yet we argued that no economic case could be made for these last assumptions: plainly they actually reduced the scope of UK free trade by eliminating free trade with the EU and putting nothing in its place! We were told by various consensus economists that 'it was not politically practical' to introduce unilateral free trade; yet plainly when there is a referendum normal political 'practice' (under which this possibly could be true) is suspended.

The second big difference between our forecast and the consensus lay in the treatment of 'Brexit uncertainty'. Consensus economists put into their forecasts large negative assumed effects of this uncertainty, starting in Q2 and continuing for around two years. These effects generally caused risk premia on asset yields and directly reduced investment and consumer spending.

Our treatment of this uncertainty was based on rational expectations (nowadays a default modelling assumption) about post-Brexit policy: we evaluated the two main possible policy scenarios, an EEA-type deal and the free trade/deregulation assumption we made. Essentially the first leaves the status quo intact while the second gives gains as noted above. We also considered that before Brexit there was a more negative assumption possible, that of inward-looking protectionism and controls. Computing uncertainty as the difference between the extremes we found that this was at its height in Q2 and in Q3 fell as the third scenario disappeared under the new May government. We projected it as being steadily reduced as policies were finally chosen in the way we now see that they are being.

How big is the effect of such uncertainty and how negative is it? Our view is that the effects are quite small. This seemed to be borne out by the Q2 growth rate, at 0.7% well up from Q1's 0.4%. By Q3 once the May government was in place we argued it was of little consequence at all. On the sign of the effect, one can argue that while more uncertainty will make people more cautious, this could make them spend more on certain items that enhance security (eg. more investment in innovation to fend of greater competition). In sum we put in nothing for these effects from Q3.

In this we seem to have been right. The PMIs across all sectors dipped immediately after Brexit but have since rebounded. The immediate dip can be put down to the political chaos of that time with the Conservative leadership election in

prospect and no viable government in office. It seems that once the May government was installed matters became 'business as usual'. As for the long-term effects of policy these appear to have been treated as on balance positive, which would be consistent with our assumptions about the two scenarios: either the same as now or positive. Given that these effects will take a long time to come through because of lags in policy implementation, this muted response to the long term appears right: in our forecast we assume a five year lag in the full implementation which makes the effects positive but long drawn out.

In our early May Brexit forecast we underestimated the effect on the exchange rate. We projected a 5% fall over about two years; we got this effect from the model's projection that with higher output the exchange rate would need to fall to achieve the necessary higher overseas sales. In fact we have had an immediate fall of around 17%. How is this to be interpreted?

Here we come into the area of 'signal extraction' where we (and everyone else) try to understand what (the 'signal') may be driving short term events (the 'noise'). We know that in the very short term ideas about what is happening can drive asset prices sharply. Clearly the Brexit vote was a big surprise and reactions to it factored in 'doom and gloom' forecasts that were widely being made as we have seen. When a negative shock hits an economy the market reaction is to sell the currency and this is also an optimal economic stabiliser, boosting demand for exports and home production at the expense of foreign goods. It seems likely that the negative forecasts and the political chaos together drove the pound down.

With the new government moving ahead steadily with its Brexit policies and the economy normalising, it is likely to recover. As we have seen, the growth prospects have remained firm, as supported by recent data. Apart from the strong PMIs for September, we have seen strong growth in retail sales volume, employment, money and credit, and house prices. Furthermore, the exchange rate fall has provided a massive monetary stimulus to the economy.

Given these latest developments we expect growth to continue at current rates of 2-3% per annum, much as we forecast back in early May. We also expect consumer spending to remain strong and private investment to continue growing moderately as in Q2. Net exports will rise on the back of the fall in sterling and inflation will rise quite sharply, with it also wage rises because of the continuing rise in employment and the tight labour market, pushed ahead too by the rising minimum wage and the new controls on unskilled immigration. Public spending will move towards less restraint especially on infrastructure; but in spite of this the public finances will improve with rising tax revenues and the debt-GDP ratio will start to fall within the next year. Rising inflation will soon be seen as a threat to the inflation target by the Bank of England and interest rates will have to be raised.

The latest contribution to this debate has come in the Autumn Statement from the Office of Budget Responsibility which has conceded that 2016 will show growth of 2.1% but is now predicting 1.4% growth for 2017. It says that it has based this on some average of other forecasters in view of the 'uncertainty' surrounding the Brexit effect. Yet as we have already explained this is a strange way to assess the effects of Brexit given that these forecasters made variously damaging assumptions about Brexit policies and we now have a government committed to a Brexit of free trade with the rest of the world, UK-controlled regulation, and an immigration policy based on the economic contribution of migrants- all of which are positive for UK growth.

Why did the OBR not base its forecasts on such optimal policies? And given that instead it based them on some ill-defined but worse policies why did the Chancellor not make it clear that as a senior member of this government committed to the best policies he did not agree with their assessment? I fear the answer is rather clear: Whitehall is embarking on its own Project Fear Mark 2 in order to try and reverse the Brexit decision and the Chancellor is leading a faction within the government that supports this reversal objective.

Ending the policy uncertainty over Brexit

Now that we have had Theresa May's speeches to the Conservative Party Conference, it is clear that the government has finally made up its mind to leave the EU straightforwardly: that is, to leave the Single Market, the Customs Union and all other EU budget and legal mechanisms. The repeal of the European Communities 1972 Act will end all UK dependence on EU law and other authority.

There has been much lobbying by manufacturing industry and the City for an 'EU-Lite' whereby the UK would be like Norway in the European Economic Area. But this would have clashed with the referendum vote, since it implies that the UK accepts free migration from the EU, is subject to virtually all the Single Market regulations, and pays a still large budget contribution. Not merely inconsistent with the vote, it would also impose all the same costs of EU protectionism, regulations and budget: this makes it highly suboptimal economically.

In sum, the UK has now reached the crossroads where it has decided to leave the EU cleanly. Now it must make sure that this path leads to unilateral free trade and not to some half-hearted UK protectionist substitute for the EU's damaging protectionism. ■

The trade issues which must be solved by David Davis' Brexit Department

Robert Oulds is Director of the Bruges Group

Brexit negotiations must aim to prevent the complexities of trade slowing the free flow of goods after Britain leaves the EU. Any withdrawal agreement between the EU and the UK, must look at these complexities and find practical solutions to make sure that trade enters the EU as seamlessly as possible.

The biggest challenges to resolve are the practical logistics. Few, if any, so far, have looked at these issues from the perspective of eliminating, or at least mitigating, the real hurdles that would appear after Brexit.

Inside the EU, exporting to Berlin is effectively not any different from sending goods to Birmingham, just that the transportation will, due to the distance involved, set a slightly greater logistical challenge. There is no requirement for burdensome bureaucracy when moving goods between EU member states. When goods from Britain are transported to the EU, just like those destined to our shores from the European Union, they come and go via our ports, be they channel ports like Dover or airports such as Heathrow.

Presently this is with no let or hindrance. No administration is involved. In fact, national borders in terms of trade can be said to no longer exist within the European Union. At least some red-tape, has been eliminated. Yet, without a practical agreement businesses that are involved in either exporting to the EU, or importing from it, will face costly delays.

The enormous mutual dependency, between British and continental firms, rightly cited by many as a reason why an agreement will eventually be reached on issues such as trade tariffs, have, however, not considered that the high volume of trade can be a source of problems. This centres around the fact that all imports to the EU must go through customs posts.

The UK's trade in goods with third countries outside the EU is often relatively unfettered because it is in bite-sized portions. The trade from Britain through the many customs posts of the numerous states around the globe to which Britain exports is in manageable quantities. However, the sheer scale of goods going through for instance French ports is staggering. Quite simply they do not have adequate facilities in place to deal with the enormity of post-Brexit trade.

Ports in the UK and Europe are not up to managing the high volume of freight, they lack the necessary infrastructure. The UK does not at present have the capacity to dramatically improve the UK's customs facilities to deal with trade coming from the remaining EU states. Planning for what would be a series of major construction projects has not yet begun, and nor have the financial resources been allocated. Serious question marks exist over France's ability, let alone willingness, to upgrade their facilities to deal with trade coming from the UK. Furthermore, a special UK-EU agreement on customs clearance must be in place by Spring 2019. Without such an agreement there will be trade gridlock.

Tariffs in themselves are not the issue, time is. The cost of collecting the customs duties, a set percentage of their sale price agreed with the WTO and charged to the importer, makes any financial benefit for the EU almost irrelevant. Any 'benefit' comes from increasing rival's costs to protect EU producers. However, with increasingly interdependent markets, with global value chains where the genesis of a manufacture rests in many nations which have supplied the numerous parts, such a strategy makes little economic sense.

The real advantage of eliminating tariffs for the exporter, and the business importing the product, is not the removal of this tax on trade. The main benefit is that without the need to produce the paperwork and payments to meet these customs duties, the item will be subject to less delays at customs posts.

Before solutions can be found to ease the process of trade the hoops and obstacles need to be explored. All non-EU companies that send good to the EU must either pay tariffs, complete paper work, and clear customs; sending the goods to be approved via what is known as a designated port of entry. Even if a free trade agreement is in place customs officers checking products and making sure the necessary bureaucracy is complete is a common place occurrence.

The trade process

Designated port of entry

When exporting goods to another territory the host nation can stipulate a designated port of entry for the product. At present Britain and the European Union are one trade zone the UK has free access to any and all established places where both people and produce can be admitted. The EU has the hypothetical ability in the short term to prescribe a port of entry, and terms, that are inconvenient for British exporters.

However, this will be a serious breach of international trade law. Articles XI:1, XIII:1, V:2, V:6 and I:1 of the 1994 General Agreement on Tariffs and Trade now administered by the World Trade Organization. Under these rules one country cannot be treated less favourably than any other state in the export and transit of goods. What is more, as both businesses and consumers on the continent depend upon British imports there is no reason to believe that such problems will arise.

Regardless of how the UK leaves the EU it should be business as usual via the existing ports of entry. Indeed, Brexit negotiations should seek to expand them to include more destinations accessible via HS1, the Channel Tunnel. So far so good. However, there are other serious issues.

"David Davis' Department for Exiting the European Union must, however, focus on addressing the bureaucratic trade hurdles that can cause delays at customs posts"

Exporting to the EU from outside is not bureaucracy free

Exporting into the EU requires a convoluted process to be completed. Goods must have assigned to them an identification number, inputted at the port of destination. The larger importers find the process easier. They can make their declarations at the end of the month. Those who export less to the EU will, however, be faced with bureaucratic hurdles.

Clearance for use, allowing the product to go into circulation to be sold in the UK, or an EU country, needs to be obtained. The process for assessing this, even in the EU, will differ from country to country. Mostly, however, this is often just a theoretical problem, rarely do customs officials demand compliance with national standards and rarely do they conduct a strict examination of documentation declaring that an item conforms to national or EU standards.

It is legally possible to detain goods on the grounds of differing standards, but in practice this only usually applies to items that are deemed to be dangerous, illegal, or subject to anti-dumping duty (a tax on products suspected of being sold substantially below their normal value).

Still, the process of shipping goods to and from the EU is not without other bureaucratic impediments. The freedom of the items is also strictly regulated. From outside the EU, any goods entering the EU, if not cleared at port, which can be a laborious process, must be stored in a bonded warehouse, also known as an Enhanced Remote Transit Shed (ERTS) warehouse. Until they are declared to customs for an approved treatment or use.

Transhipped cargo not in free circulation will also require what is known as a CMR document. The CMR is a consignment note with a standard set of transport and liability conditions, which replaces individual businesses' terms and conditions. It confirms that the carrier (ie. the road haulage company) has received the goods and that a contract of carriage exists between the trader and the carrier. It derives from the Convention on the Contract for the International Carriage of Goods by Road.

The process of clearing customs is increasingly becoming electronic. Systems used by exporters that integrate with the British customs system are the CNS and Destin8 computer systems.

The VAT hurdle

Value Added Tax (VAT) is often charged on imported goods, that is in addition to any customs duties. The details must be entered onto the Customs Handling of Import and Export Freight (CHIEF) system. This system records the declaration to the customs authorities details of the goods whether they are transported by land, air and sea entering or leaving the UK/EU. It allows importers, exporters and freight forwarders to complete customs information electronically. This is not without charge.

If there is no prior agreement for each consignment, going to a specific destination, to clear customs the importer must produce customs records for each, pay VAT and the customs duty, if any. This will be calculated per the value of the item at its final point of sale. The VAT rate will differ from country to country, and even item to item. In some cases, a product will be exempt, VAT will not apply. In other cases, an item will be zero-rated, requiring the documentation to be completed but with no final payment.

Even where tariffs are eliminated when importing from outside of the EU there is still the requirement to pay Value Added Tax. If the exporter is registered for VAT then this can be claimed back but only if they registered. There is also a requirement for an input VAT certificate to be completed.

Remaining in the EU's customs union, but being in the EU, does not eliminate the requirement for form filling to be completed. The requirement to clear customs and complete documentation, known as an ATA Carnet, to validate the origin of goods and confirm that they are free from tariffs even applies to Turkey. This country is considered part of the EU's customs union and therefore has tariff free access for industrial products; but it is not bureaucracy free access.[1]

The EEA is not the answer on its own

The EU's internal market, open to the EFTA states of Iceland, Liechtenstein and Norway, have sought to resolve some of the problems through the European Economic Area agreement. Beyond granting the theoretical access to the single market in services and the right to bid for public procurement, the EEA seeks to remove all technical barriers to trade. There is regulatory conformity and most importantly the European Economic Area has the mutual recognition of standards. Regulation EC 764/2008 of 9th July 2008 demands that all members allow goods that are legally sold in one country to be sold in another EEA state.

One of the main benefits of being part of the single market comes through the principle of mutual recognition. This allows businesses to export to the entire European Economic Area, the internal market, without having to seek standards approval. As the Single Market is still not complete some member states still have differing standards. The principle of mutual recognition is that if a product has been approved as safe and saleable in one member state then it can be sold in all. This bypasses potentially costly and time consuming safety and regulatory checks in each country where the good is sold.

The EEA agreement also abolishes customs duties between the states participating in the single market. However, EFTA/

EEA members must still go through a customs clearance process and outlay for VAT. These time-consuming procedures apply even to states such as Norway. Britain renouncing its EU membership but retaining, through membership of the European Free Trade Association, its status as a part of the European Economic Area will not on its own answer the practical and bureaucratic trade hurdles.

Tariff free trade

Whilst every possibility exists of there being an agreement(s) on reducing tariffs between the UK and the does not in itself eliminate all the bureaucratic hurdles.

If a business is sending produce to the EU from a country that has a free trade agreement it must prove that they were mostly manufactured or re-worked in a country that had a free trade agreement with the EU. If the business cannot confirm the origin of the goods, then the tariffs will apply. This can be sidestepped by making some modifications to the products in the exporting state, yet this may be subject to investigation. This is a rare occurrence, yet the need for paperwork to prove it is not rare.

Rules of origin

If the goods are of UK origin and if Britain has a free trade agreement, namely no tariffs to pay, importing into an EU country may require a Certificate of Origin to show its provenance. If its tariff free origin cannot be proved, a customs charge will be applied. Certificates of Origin can be obtained from a relevant countries chamber of commerce, they are however, expensive to obtain.

Anything that is already inside the customs union that has originated from a non-member will have been charged at its original port of entry and can therefore circulate freely within the EU. At present, as the UK is an EU customs union member, British exporters to the other 27 do not have to prove that they comply with the EU's rules of origin. As supply chains are becoming increasingly globalised the need to demonstrate an item's origins can be a complex burden.

The Trade Policy Research Centre argue that *'the process of adapting to rules of origin based duty-free trade under a new UK-EU free trade agreement would be tedious, costly and disruptive to trade.'*[2] However, some developments are making this concern less relevant. The reduction in tariffs, where many goods are zero rated, reduces the need to complete the administrative duties. The EU has extended the area in which origin can be accumulated to not only cover more states but also to allow for an item to be obtained and manufactured in a number of countries without the final product losing the benefit of being tariff free when it enters the EU.

This system has been in existence in the EU and European Free Trade Association since 1997 and for Turkey since 1999. Over time the EU does grant greater allowance to other countries to claim exception from rules of origin. And from 2017 under World Customs Union rules the procedure declaring a products origin will be simplified.

These are hurdles, but they can be overcome through effective negotiation. Furthermore, the application of these rules does present opportunities for Britain. If a tariff free trade agreement is in place UK businesses can corner the profitable market for business assembling goods. The now complex supply chains that dominate global production can create jobs in the UK. Gate way Britain.

Britain obtaining tariff free access to the remainder of the EU, along with measures designed to speed the passage of goods through customs, and developing trade links with the third countries around the world, will benefit Britain. Having a more liberal regulatory regime and tariff free access to the EU's single market will make the UK a base by which third country producers, who have entered preferential trade deals with Britain, can access the EU without being subject to tariffs.

Within Britain value can be added to goods and re-exported from the UK to the EU. This will allow exporters to sidestep the EU's rules of origin regime. Britain will be able to become a regional value added production hub. The British economy will therefore not only benefit from the additional bilateral trade with other territories but will also capture a number of benefits:

1. Increased trade

2. Increased freight and haulage through the UK as a pass through onto final destination

3. Increased assembly and manufacturing within the UK (to meet rules of origin that require a declaration to be made that at least partial reworking has occurred to the produce)

4. Increased economic activity and employment and the resulting fiscal benefits

5. Increased use of a made in Britain mark makes the UK's regulatory regime more internationally relevant

Even in the EU, technical requirements on import processes as well as standards will differ from each country. However, the fear that EU legislation prejudicial to the UK may queer the pitch against British sales to the continent is probably unfounded. As Britain conforms to EU standards at present there is little, if any, divergence. Further, as an increasing proportion of technical standards originate from global bodies, agencies of the United Nations, or relate to international agreements on technical barriers to trade, there will not be a sudden deviation from permissive regulations.

These international agreements are designed to encourage cross border trade. It is worth reiterating the fact that rarely do customs officials demand compliance with national standards and rarely do they conduct a strict examination of documentation declaring that an item conforms to national or EU standards.

David Davis' Department for Exiting the European Union must, however, focus on addressing the bureaucratic trade hurdles that can cause delays at customs posts. The alternative will be even worse congestion on the M20 after Brexit than that which exists at present. ■

1. http://eur-lex.europa.eu/LexUriServ/LexUriServ.do?uri=OJ:L:2006:265:0018:0038:en:PDF
2. Ronald Stewart-Brown and Felix Bungay, Rules of Origin in EU Free Trade Agreements, Trade Policy Research Centre, 2012

Trump's rhetoric: retrenchment, status quo or deepening engagement?

Stephen Nagy examines the potential effects Trump's policies will have on trade and security in East Asia

This year's US presidential cycle rhetoric provided a clear contrast as to what East Asia neighbours should expect from the US's strategic commitment to the region. On the one hand we had Hillary Clinton, a known entity with a track record on East Asia that would have provided at the minimum more of the same and at maximum a more robust, yet cautious approach to dealing with China's regional and global rise. Her views were clearly articulated in her *Foreign Affairs* piece called the 'Pivot' and Kurt Campbell's book of the same name.

In short, a multi-pronged, sustained engagement strategy in the region that would embed the US through economic ties such as the TPP, through expanded military cooperation as evidenced by the US-Japan security alliance, but also through expanded diplomatic and track two diplomacy in which 100,000 plus American students study at universities in the region to develop language skills, cultural acumen and those precious personal networks that can be leveraged to manage bilateral relations.

On the other hand, we had a now president-elect Trump whose policies were viewed as dangerous, naïve, uninformed, isolationist and confrontational. On the campaign trail he spoke light-heartedly about both South Korea and Japan acquiring nuclear weapons, making allies pay for their American military protection, about unfair trade practices of Japan, South Korea and China and the importance of labelling China a currency manipulator.

Unfortunately for the signatories of the TPP, Mr Trump explicitly said that he will not accept the TPP, a trans Pacific free trade agreement that is a 1st tier trade agreement that includes high standards for intellectual property rights, but also clauses for services, environmental protection and the role of state owned enterprises (SOEs).

Trump's stance on the TPP is problematic for the long term national interests of the US and TPP members (aspirants as well) as the TPP links countries with different comparative advantages in the Asia-Pacific region through the South China Sea (SCS) and as a result it inculcates an increased number of strategic security stakeholders in the SCS. This has the intended effect of linking economic and security policy towards an effort to forge trade and security behaviour that decreases the incentives of countries to unilaterally change the status quo of the region through economic or security Trojan horses.

Retrenchment and isolationism

Trump's election rhetoric regarding security in East Asia is of a concern as well as it would dismantle the US's 70 plus years of providing a security framework in the region that allowed Japan, South Korea, China, Taiwan and Southeast Asia countries to focus on peaceful socio-economic development instead of military capacity building. Aside from the obvious challenge that an increased military rivalry would have for the region, retrenchment or isolationism by the US (militarily but also economically) would also be damaging for the global economy as the most economically dynamic region of the world would shunt valuable economic and human capital resources away from economic activities towards bolstering their military defence capabilities.

In a period when global economic growth is already precarious owing to a slowdown in economic growth in China, stagnant or low economic growth in Japan, Europe and in the BRICS and other emerging economies, retrenchment and isolationism by the US under a Trump administration would have severe consequences for the global economy but also seriously wound the US economy, neither of which are in the national interests of the US nor would they *"Make America Great Again!"*.

Status quo

Assuming that Trump maintains the status quo in East Asia by adopting the broadly bipartisan approach the US has had toward the region over the past 70 years, leaders in the region would be cautiously relieved but would still harbour concern about the US's commitment to the region. For many East Asian countries (except China and North Korea), the US's economic and security policy in the region has been understood and felt as uncommitted, wavering, not robust enough and distracted with domestic politics and the Middle East.

With both Clinton and Trump rejecting the multidimensional TPP agreement in the pre-election period and then President Obama being not even able to bring the agreement to the House of Representatives for ratification in the lame duck session, TPP signatories in the words of Singapore PM Lee Hsien Loong, feel as if *"they have been left standing at the wedding altar"*.

This sentiment that the status quo represents American intransigence concerning East Asia has also been felt in the security realm as well. The US's inability to curb Chinese assertiveness in the SCS and East China Sea (ESC), to finding a solution to deal with North Korea and to explicitly state the US's position on territorial issues such as the Senkaku/Diaoyutai islands (until recently) and those in the SCS have left East Asian countries straining to comprehend the US's commitment in the region. Even the Philippines under President Duterte has eschewed their relationship as longstanding allies in lieu for a different approach to solving its bilateral territorial dispute with China, owing to the US's lack of economic and military commitment to the Philippines.

In a period when global economic growth is already precarious... retrenchment and isolationism by the US under a Trump administration would have severe consequences for the global economy

More of the same under President Trump will not 'Make America Great', it will prompt more insecurity amongst allies and partners in the region' It will compel traditional partners such as Japan to build more strategic partnerships in and outside the region to counter the concern that the US may not be willing or able to abide by its security, economic and political commitments in the region. This will have the effect of further destabilising the region as a security competition between China, Japan and other countries in the region would develop. This would distract the globe's primary contributors to economic growth away from prioritising trade and economic growth to building military capabilities, and it would increase the level of uncertainty in East Asia as a viable place to do business.

Deepening engagement

A third possibility exists for the US under a Trump Presidency, deepening engagement. This scenario, while counter to his pre-election rhetoric, remains a high probability based on his foreign policy advisors' views on China being an economic and military threat and Trump's interest in invigorating the US economy and the US's long term strategic national interest of remaining engaged in East Asia for economic prosperity, but also to prevent the advent of a peer competitor in the region.

Trumps' advisors such as Alexander Gray and Peter Narravo, although not mainstream China watchers, have both advocated for 'peace through strength'. They support an end to defence sequestration, increased military spending to build more naval ships for Asia-Pacific deployment, and a harder line stance towards China, in particular over its assertive behaviour in the South China Sea, but also with regards to its perceived unfair trade practices. They also advocate more support for democratic Taiwan, a policy that would be sure to anger Beijing and escalate friction between the two states.

The US could unilaterally turn this policy into reality but it would welcome partners to support this more robust position in East Asia. Japan, Vietnam and India would welcome this increased commitment but so would smaller Southeast Asian countries such as Singapore, Malaysia, the Philippines and Indonesia, as it would allow them to continue to expand economic relations with China as well with extra regional

powers such as the US, Japan, and Australia while at the same time rely on the US and its network of security partnerships for security.

Deepening engagement by the Trump administration through security and economic partnerships in the region are crucial if the new administration wants to remain economically engaged and an agenda-setter in the region. Without a resurrected TPP, economic leadership momentum garnered by China through successful initiatives such as the Asian Infrastructure and Investment Bank (AIIB) and the One Belt One Road(OBOR) will shape the region's economic architecture to one that excludes the US or at least orients the regional economies towards Beijing's economic axis. This possible exclusion would be further magnified if other competing economic agreements that exclude the US come to fruition such as the Regional Comprehensive Economic Partnership (RCEP) or the China-Japan-Korea FTA.

With that in consideration, pre-election rhetoric will be trumped by national interests in East Asia and the risk of being locked out of the region economically if Trump chooses retrenchment and isolation over deepening engagement. As a consequence of this economic zero-sum game, deepening engagement in East Asia will broadly continue under a Trump administration.

This engagement will necessary include an expanded naval deployment in the Asia-Pacific, more join security cooperation with security partners such as Japan in the region. It will also include either more bilateral trade agreements in the region or a resurrected TPP in which some components of the present agreement are renegotiated and various laws adopted domestically to protect workers that are most vulnerable to intended and unintended consequences of the trade agreement.

This deepened engagement will be welcome by most capitals in East Asia save for Beijing and Pyongyang as it is consistent with the desire Southeast Asian countries, Japan, Taiwan, South Korea and India to have continued economic intercourse with China while at the same time enjoying expanded economic and security relations with the US.

In Beijing, a more robust US policy may be unexpected and counter to the prevailing view that a Trump Presidency would create more favourable conditions for China in terms of securing its core interests and its desire to attenuate the US's political, economic and military influence in the region.

At the same time, a more assertive and anti-China policy under Trump may have the unintended consequences of increasing nationalism in China and compelling leaders to have more nationalist stances in their domestic and international politics. This will bolster President Xi's hand at the upcoming 6th Plenum in which China chooses their next Standing Committee members, allowing him to choose a more cohesive, nationalist leadership team as well as extend his leadership term beyond the normal ten-year period. This could lead to more friction between the US and China in the short to mid-term but it might have the non-tangential effect of strengthening his power base which will allow him to push through tough economic reforms and policies to root out corruption.

Pre-election rhetoric: trumped by national interests

Washington under Trump will need to consider the how the choices of retrenchment/isolationism, status quo and deepening engagement will not only have domestic consequences in the US but also domestic and international consequences abroad. Without a nuanced, carefully considered strategy pre-election rhetoric that becomes policies could have numerous unintended consequences that would accelerate China's rise or the US's relative decline.

Either case would create economic, political and security vacuums that would be filled by peer competitors such as China or asymmetrically powerful countries such as Russia. These would decrease American influence, weaken the US's agenda setting capabilities in international organisations and trade pacts and negatively affect the business prospects for US businesses globally but in particular in East Asia.

Rather than rhetoric, Mr Trump should borrow a saying from Mao Zedong, *"Seek truth from facts"* (實事求是/shí shì qiú shì) and pursue an East Asia strategy that is based on national interests and an East Asian policy based on deepening engagement that has been broadly represented in bipartisan American diplomacy in the region over the last 70 years. Without such an approach, Trump's rhetoric turned policy may be seen by historians as the equivalent of the end of Pax Britannica in which Britain lost its economic, political and military primacy. This did not make 'Britain Great Again' and neither will it make 'America Great Again' either. ■

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With extensive experience in China, Japan and Northeast Asia, Dr Nagy provides macro-level geopolitical analysis on trends in the region to businesses, governments and the media. He has published widely in peer-reviewed international journals such as China Perspectives, East Asia, the Journal of Asian Politics and History and the International Studies Review on topics related to trade, nationalism and China-Japan relations. He has also published in think tank and commercial outlets such as the China Economic Quarterly on trade and political risk. In addition to writing in media and policy forms outlets in Japanese and English such as Diamond OnLine, South China Morning Post, the Japan Times, the East Asian Forum and Policyforum on issues facing the region. Dr Nagy is also a frequent political/ economic and security commentator on Japan-China-Korea.

World Commerce Review is pleased to announce that Bermuda has been awarded the Best Digital Jurisdiction 2017.

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Chinese Presidency of 2016 G20 Summit:

Expectations vs Outcomes

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Since its inception in 1999 the G20 has emerged as the premier international forum for coordinating policy efforts in the sphere of global economic governance. Having played an integral role in responding to the global financial crisis of 2008-09, the G20 is now in a state of transition as it morphs from a body for short-term crisis response to a forum for long-term international economic cooperation.

The current challenges are aplenty: global macroeconomic instability; increasing financial volatility; the populist backlash against globalisation and free trade; and the looming threat of climate change. At the same time, new technologies and the emerging digital economy are providing unbound opportunities to shape a new global growth agenda driven by the ideals of sustainability and inclusiveness.

In this state of flux, China's leadership the G20 2016 summit under the theme of *'Towards an Innovative, Invigorated, Interconnected, and Inclusive World Economy'* represents a critical juncture. By extending official consultations well beyond the circle of G20 members, and inviting a record number of guests from the developing world, China secured its claim to being the most inclusive G20 host.

In this context, we evaluate the Chinese Presidency of the G20, focusing on both the expectations and outcomes of the 2016 summit. Our analysis of the emerging Hangzhou Consensus seeks to provide clarity at a time of profound uncertainty and transformation in the global economic landscape.

Introduction

The G20 played a key role in responding to the global financial and economic crisis of 2008-09. It led a decisive role in ensuring sufficient liquidity in their respective economies, strengthening the capital adequacy of financial institutions, protecting savings and deposits, addressing regulatory deficiencies, unfreezing credit markets, and working to ensure that international financial institutions provided critical support for the global economy.

In turn, its coordinated actions boosted consumer and business confidence, and supported the first stages of economic recovery. The G20 continues to focus on measures to support global economic growth, with a strong emphasis on advocating for institutional and structural reform, promoting inclusive employment generation, and furthering a free and open trade and investment regime.

Over the course of 2008-2010, deliberations in G20 summits focused mainly on building consensus on measures required to stem the global financial crisis. Since the Seoul Summit in November 2010, the agenda has focused on issues such as building the framework for strong, sustainable, and balanced growth; international financial architecture; regulation and supervision of the financial sector; climate change finance; fossil fuel price volatility; clean energy and energy efficiency; green growth; food security; disaster risk management; labour and employment issues; corruption; and trade.

In sum, the G20's efforts to date speak to its power as an emerging forum for international economic cooperation and policy coordination. Apart from the success that the G20 has achieved by taking joint action on financial regulation, G20 leaders have also helped marshal a collective response to other social, environmental, and political challenges such as the Ebola crisis, hydrofluorocarbons (HFCs), and the refugee crisis. The achievements of the G20 over the years can be grouped into four stages:

1. 2009: Response to the historic global financial crisis

2. 2010: Turn to consolidation

3. 2011-12: Keeping the euro area intact

4. 2013-14: Addressing weak global growth

From 2015 onwards, the G20 has focused on 'national growth strategies' that would collectively raise G20 GDP by 2 per cent by 2018. These efforts are still a work in progress.

In the current environment, the global economy and international economic cooperation have reached another crucial juncture. The Federal Reserve's planned withdrawal of quantitative easing (QE), through which central banks purchase sovereign debt, has had adverse effects on India and other emerging markets. Accelerated fiscal adjustment in advanced economies may reduce the pressure on developing currencies, but given the extent to which this negatively affects growth in advanced economies, their own faltering recovery would be at greater risk.

The asymmetric impact of fiscal management in advanced economies though trade and financial channels is another conundrum that emerging market economies would need to tackle. It is imperative that G20 nations come together and strengthen the foundations for sustaining a global recovery in growth.

The G20 is also in a position to seize the historical opportunity presented by the wave of technological breakthroughs and the new industrial revolution – this has the potential to usher in a new round of global growth. Henceforth, the G20 has promised to act with a broader, more inclusive vision and deliver concrete outcomes. It will continue to address critical issues affecting the global economy and endeavour to promote strong, sustainable, and balanced growth.

During and after the global financial crisis of 2008-09, while advanced economies experienced dwindling growth, India was one of the few countries that experienced persistent growth. In addition, India has not been a contributor to the global imbalance. By virtue of these facts, India has emerged as an important member of the G20, one able to influence the reshaping of the world economic and financial order, and increasingly contribute towards it. In the recently concluded G20 summit in Hangzhou, China, India brought to the table its own assessment of the G20 agenda in the light of the global developments, and offered considered views on global cooperation without compromising on its own interests.

In fact, the Communique released at the Hangzhou summit is unique in its diversity of voices and interest, covering a wide gamut of interest of both developed and developing nations, in and outside of the G20. The Hangzhou summit exceeded the scope of vision presented by other global economic governance bodies including the G7; it charts out an ambitious vision and values of 'integration', 'openness', and 'inclusiveness' to catalyse the drivers of growth and to bring together diverse interests in the world economy.

China's role in international economic management and its Presidency of the G20

Adding to its record as the most populous nation in the world, China recently became the world's second largest economy, and is increasingly playing an important and influential role in the global economy. In this context, China's role in bringing order to global economic governance, and in fostering international cooperation is significant; in this year's G20 summit meeting, China assured the world community that it would work towards transforming the G20 from a short-term crisis management body to platform for long-term governance.

As a body that brings together the world's major advanced and emerging economies – representing around 85 per cent of global GDP, 80 per cent of world trade, and 67 per cent of the world population – China's Presidency of the G20 marks an important milestone, enabling China to assume leadership in the role of bridge-builder, facilitator, and catalyst.

The agenda of a G20 summit is generally set by the country holding the chair. China was no exception. It worked together with other members to consolidate and strengthen partnership within the G20; attempted to fully implement the commitments made in Antalya, Turkey, in 2015, and at previous summits; improved the effectiveness of the G20 in decision-making and implementation; and extended its reach to a wider range of issues.

The economic backdrop of the Chinese Presidency of the G20 was not much different from other G20 presidencies. The global economy continues to face significant short- and long-term challenges associated with the sluggish recovery from the global financial crisis, and 2016 has not fared significantly better in trend of slow growth and persistent unemployment. The world economy faces several risks, including the slowdown in the Chinese economy; slow and negative growth in emerging markets such as Brazil and Russia; debt concerns in several G20 nations; and ongoing EU problems related to migration flows, Greek debt, and Brexit.

"The Hangzhou summit has laid a roadmap for ensuring that future growth is innovative and sustainable"

Hence, economic policy-makers and multilateral institutions such as the G20 need to be alert to evolving economic conditions and must stand ready to respond to events that can cause contagion. The G20's central mandate of strong, sustainable, and balanced growth, which has been repeated at successive G20 summits, remains elusive. This has raised questions about the efficacy of the G20 as a forum for addressing key international problems. Ultimately, the G20's credibility is linked to its ability to restore global growth on a sustainable basis.

China started its Presidency with an ambitious and broad-based agenda, and has generated a sense that the G20 is back to focusing on pressing economic, social, and environmental challenges. A significant opportunity for China's G20 Presidency was the implementation of the post-2015 development agenda.

Recognizing its importance for global economic growth and stability, Chinese President Xi Jinping highlighted this task as one of its priorities for the 2016 Hangzhou summit, in addition to fostering innovation, and promoting free trade and investment. China's Presidency was expected to drive progress by formulating a roadmap and timetable for the implementation of the UN Sustainable Development Goals (SDGs) and the Paris Agreement on climate change.

As a result, China's Presidency of the G20 faced the challenge of balancing high expectations with achieving tangible results to address the prevailing economic challenges and uncertainties. It was imperative for China to manage expectations about what the G20 could accomplish, and it has done so well; several member countries of the G20 have attested China's ability to lead and exercise its power responsibly. China's influence has been constructive, despite recent signs of political assertiveness in the Asia-Pacific region, and the rising domestic economic challenges (in terms of the slowdown in economic growth, excess capacity in manufacturing industries etc.).

In the face of these challenges, China continues to reform its growth model (to reduce its reliance on investments and exports), and move up the global value chain. Notwithstanding, China's policy approach has not sought to undermine the global economic order. Its Presidency of the 2016 G20 has worked towards restoring the credibility of the G20, and its leadership has exemplified that the G20 remains the most relevant organization for making a positive contribution to global economic governance. The emerging Hangzhou Consensus reflects the opening up of a cooperative space within which China and other emerging economies have started to exert greater influence in the management of the international economic system.

G20 Agenda-2016: expectations

In tune with the shift in the G20's role from short-term crisis management towards long-term global economic governance, the G20 summit focused on the theme of an *'Innovative, Invigorated, Interconnected and Inclusive World Economy'*. China added another 'I' to the three Is of the 2015 Turkish Presidency – 'innovation'.

Given that the world economy has been affected by a series of unfavourable factors, including anaemic global growth, decline in potential output, volatility in financial markets, weakening global trade and investment, high levels of unemployment, and widening inequality, expectations for the G20 concentrated on providing a fresh impetus to economic performance, and on facilitating greater macroeconomic policy coordination. Some of the key items on the agenda of the Chinese Presidency of the G20 were as follows:

Breaking a new path for growth

Since the 2008 global financial crisis the G20 has stressed the importance of coordinated fiscal and monetary policies to stabilise the global economy and promote inclusive growth. The Pittsburgh summit in 2009 set up the framework for strong, sustainable, and balanced growth, and further efforts were made at successive summits in Brisbane and Antalya.

In keeping with earlier mandates, the expectation from the Chinese Presidency was to continue to promote multi-stakeholder partnerships of win-win cooperation, enhance macroeconomic policy coordination, address potential systemic risks to the international economic system, and increase synergies in promoting sustainable and inclusive growth.

Maintaining the momentum of global economic recovery

Given the fragility of the global economic recovery, expectations were that the 2016 G20 summit would emphasise the responsibility of member states to continue their commitment to responsible macroeconomic policies, and to enhance coordination to increase policy synergy (and reduce negative spillovers), maintain financial market stability, increase investment and consumption, and jointly boost global economic growth.

Given the backdrop of the rebalancing of economic power towards China and other emerging markets in the region, the Chinese Presidency of the G20 was also expected to make progress on making the global economic recovery sustainable and inclusive in nature.

Lifting mid- to long-term growth potential

With an eye to the future, the 2016 G20 summit was

expected to enhance cooperation on innovation, including innovation in science and technology and to explore new growth engines of the world economy. The G20 requires member states to continue structural reforms to lift total factor productivity and potential output, and expand growth boundaries.

The Chinese Presidency was seen as an opportunity to advance the new industrial revolution, taking full advantage of emerging technologies and new organisational models in industrial production to lift domestic production and create more jobs.

Helping the implementation of the UN's 2030 Agenda for Sustainable Development

The 2016 G20 summit follows several key development milestones in 2015, including the Third International Conference on Financing for Development in Addis Ababa in July; the UN global development summit in September, which endorsed the 2030 Agenda for Sustainable Development; and the global climate summit in Paris in December, which reached a new agreement on climate cooperation.

The G20 Presidency presented China with the opportunity to build on its record as one of the best performers in meeting the Millennium Development Goals (MDGs); it was expected to prioritise the 2030 Agenda for Sustainable across policy discussions.

Strengthening G20 collaboration in the energy sector

The energy sector is core to almost every aspect of the world economy, including growth, poverty reduction, and environmental sustainability. All member countries have agreed to the G20 principles on energy collaboration, which include energy access; global governance.

In this light, the Chinese Presidency was expected to integrate energy into other agenda items (particularly prioritising clean energy projects in infrastructure investment to improve energy access for low-income countries); expand to all G20 countries the peer review mechanism for reduction of fossil fuel subsidies; and establish a Global Energy Network, as proposed by President Xi Jinping at the UN Sustainable Development Summit in September 2015.

Key outcomes and accomplishments of the summit

As detailed above, the agenda of the 2016 summit was ambitious and comprehensive in scope, and the expectations from China's leadership were significant. With these expectations in mind, the 2016 summit was deemed a success by China and its supporters. From the outset, China's Presidency of the G20 signalled a new phase in the nation's global economic confidence and leadership. It offered the platform for promoting the Beijing economic model, including the 'One Belt, One Road' initiative and the Asian Infrastructure and Investment Bank (AIIB) on the world stage.

Making the most of its status as a developing nation, China brought the dual themes of development and inclusiveness more firmly into focus. By extending official consultations well beyond the circle of G20 members, and inviting a record number of guests from the developing world, China secured its claim to being the most inclusive G20 host. Selected key achievements of the summit were as follows:

Innovative growth

The G20 Hangzhou summit advocated innovation-driven growth to inject dynamism into the world economy, and to identify new growth engines for the world economy. Given the new industrial revolution and the emerging digital economy, the adoption of the G20 *Blueprint on Innovative Growth* is expected to encourage innovation in a wide range of domains, including development concepts, institutional architecture and business models, with science and technology at the core of that innovation.

Together with the G20 2016 *Innovation Action Plan*, the summit reaffirmed its commitment to pursue pro-innovation policies, support investment in science, technology and innovation (STI), and support skills training for STI (including the need to address the gender imbalance in these fields). China's leadership also built support for promoting knowledge diffusion and technology transfer.

Sustainable development

The G20 Hangzhou summit achieved a remarkable consensus among members on sustainable development, providing a clear timeline and roadmap for global development in the next 15 years. Clarity was achieved on the need to implement to the 2030 Agenda for Sustainable Development, including the SDGs and the Addis Ababa Action Agenda (AAAA).

G20 members committed to promoting the Paris Agreement, as well as to supporting low income and developing countries through mobilising sources of financing and targeting capacity-building. In expressing its supports for the Technology Facilitation Mechanism, the summit stressed the importance of technology in achieving sustainable development and shared prosperity.

Structural reform

The Communique from the Hangzhou summit reiterates the essential role of structural reforms in boosting productivity and output, as well as in promoting growth in G20 countries. The *Enhanced Structural Reform Agenda* calls for the choice and design of structural reforms, which are consistent with countries' specific economic conditions.

In addition, the summit endorsed nine priority areas for structural reforms, including a set of guiding principles to provide high-level guidance for countries, whilst allowing them to account for national circumstances when decided on their path to structural reforms. An important initiative concerned the G20's support for a quantitative framework (consisting of a set of indicators), which would monitor and track countries' progress on structural reforms.

Investment facilitation

In the background of the global populist backlash against globalisation and trade, the Hangzhou summit unequivocally reaffirmed its support for investment growth. The G20 *Guiding Principles for Global Investment Policymaking* is aimed at fostering an open and transparent global policy environment for investment.

As the first framework of multilateral rules governing international investment, the *Guiding Principles* will help to transition the G20 from a body for crisis response to a forum for global economic governance. In abiding by the long-term principles of sustainable development, the Hangzhou summit also selectively emphasised investment in green energy, infrastructure, and science and technology.

Financial reform

Effective and efficient economic and financial institutions form the foundation of global economic growth. The Chinese Presidency led to an endorsement of the G20 *Agenda Towards a More Stable and Resilient International Financial Architecture*, which aims to monitor capital flows and better manage risks and financial volatility.

Reforms of the financial architecture are important to support sustainable growth. In its recognition of the role that an adequately resourced (and quota-based) IMF must play in strengthening global financial stability, the G20 2016 summit welcomed the entry into effect of the 2010 IMF quota and governance reform. Further achievements included the renewed focus on financial transparency and calls for greater international tax cooperation.

Anti-corruption

Related to the focus on sustainable and inclusive development, the 2016 summit called for the ratification by all G20 members of the United Nations Convention Against Corruption, and endorsed the 2017-2018 G20 Anti-corruption Action Plan to improve public and private sector transparency. The summit endorsed the G20 High Level Principles on Cooperation on Persons Sought for Corruption and Asset Recovery; China's initiative to establish a Research Centre on International Cooperation Regarding Persons Sought for Corruption and Asset Recovery in G20 member states is to be commended. The calls for greater G20 coordination in global crime prevention and anti-corruption efforts reflect China's increased responsibility in shaping the global agenda.

Trade openness

The G20 has gradually taken on the mandate to promote an open, inclusive, sustainable trade agenda, and the 2016 summit reaffirms its commitment to revitalizing global trade and investment as key engines of growth. The Hangzhou Communique endorses the outcome of the G20 Trade Ministers Meeting, and welcomes the establishment of the G20 Trade and Investment Working Growth (TIWG).

Regional trade agreements are recognised to be promoting free trade, but the G20 reaffirms the responsibility of the WTO in furthering a rules-based, transparent, and inclusive multilateral trading system. The release of the WTO Outlook World Trade Indicator as a real-time barometer of trade trends is to be welcomed, as is the increasing emphasis on promoting inclusive global value chains.

Entrepreneurship and employment

A key component of the agenda on sustainable development is the importance of generating quality employment, with a drive to create more and better jobs, and promote labour force participation. The special focus on encouraging women and young entrepreneurs is encouraging. Towards the goal of creating inclusive global value chains, the 2016 summit endorsed the Sustainable Wage Policy Principles. Entrepreneurship is integral to plans for reinvigorating global growth and generating employment.

The Hangzhou Communique reinforced the G20 Entrepreneurship Action Plan, and welcomed China's establishment of an Entrepreneurship Research Centre on G20 Economies. The G20 also seeks to manage the large labour migration seen in parts of western Europe, and to leverage the benefits that this can bring to the respective countries' economies.

Climate change

The G20 has become the most important body for addressing transnational challenges such as climate change, and the 2016 summit furthers the resolve of G20 members to work towards the timely implementation of the Paris Agreement.

As was to be expected under the Chinese Presidency, there are references to the importance of developed countries assisting developing economies with financial resources and capacity-building measures with respect to mitigation and adaptation challenges.

G20 members also reaffirmed the importance of the Green Climate Fund. The constant reference to

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sustainable development throughout the 2016 summit reflects China's intent to assume a level of responsibility and stewardship (towards the environment) that is commensurate with its increasing role in as a major global power.

India's takeaways from the summit

The summit in Hangzhou was important to India for voicing its domestic concerns, and also for highlighting its position vis-à-vis China, with whom its relations have seen many ups and downs. However, in a meeting between the premiers of the two countries, China reiterated its commitment to maintain the 'hard won' improvement in ties between the two nations – this signals its interest in bringing bilateral relations back to the levels both leaders had committed themselves to.

From an Indian perspective, this reflects a positive outcome; Chinese investment and project execution in India has slowed down considerably since the strain in relations. China too would benefit from greater engagement and cooperation with India, particularly as it stands isolated in the South China Sea dispute. India is a major nation influencing control over one of the busiest sea lanes in the world, and India's open expression of support for the US position would mark a major shift in the strategic balance in the region.

Furthermore, China has $46 billion riding in planned investment in Pakistan where it plans to open trade connectivity from the Port of Gwadar in Balochistan, through Pakistan occupied Kashmir (PoK) and into China. This route is part of China's ambitious plan of 'One Belt, One Road' (OBOR).

In this context, Indian Prime Minister Modi's meeting with his Chinese counterpart, Xi Jinping, at the G20 summit was important for both countries. For India one of the major takeaways was that the general sentiment prevailing at the Hangzhou summit was against protectionism and in support of multilateralism. G20 members expressed support for regional trade agreements, whilst continuing to reaffirm the multilateral role of the WTO in furthering trade liberalisation.

The issue of excess capacity and the resulting international dumping came up, with steel as a case in point. Without isolating China, countries were in favour of a multilateral approach to address the issue of excess capacity, and were in favour of establishing a global body that would work under the Organization for Economic Cooperation and Development (OECD) with G20 members offering its full support to the proposed body.

India's Sherpa stressed that India had a major say in issues of global concern, and played an active role in the wording of the final Communique, which also addressed other challenges such as the impact of Brexit on the global economy, and the need for tax and financial reform.

Conclusion

Despite the lethargy that often infects international cooperation, the G20 continues to be the most apt platform for discussion and dialogue between the major economies of the world. Information sharing is another area where the G20 has been very successful. Focusing on country-specific commitments instead of international goals has been a successful strategy on part of the G20. Moreover, as the Chair of the G20, China has been appreciated for taking suggestions from non-G20 members.

The Chinese Presidency invited international regional organizations as guests at the summit, and sought contributions from the UN, IMF, World Bank, WTO, ILO, and OECD. At the same time, China has also sought to promote dialogues between international forums such as the G20 and other groupings such as the G77 and APEC. This diversity of opinion is reflected in the Communique to have emerged from the Hangzhou summit, which reflects an attempt to address the divergence in interests and concerns of the both, developed and developing countries, in and outside the G20.

In the run up to the 2016 summit China's Presidency had raised significant expectations from the international forum of member countries. From the outset, China's hosting of the G20 signalled a new phase in the nation's global economic confidence and leadership. For China this symbolic victory overshadowed critics of the summits who argued that final Communique was light on substantive policy recommendations. With the benefit of hindsight, China's Presidency of the G20 reaffirmed the principles of 'openness', 'inclusiveness', and 'integration' into the forum's discussions on the future of global economic growth and governance.

The Hangzhou summit has laid a roadmap for ensuring that future growth is innovative (leveraging the power of emerging technologies and the digital economy) and sustainable (accounting for the impact of human activity on the natural environment). The expectation is that Germany's Presidency of the 2017 G20 summit will continue this precedent of an innovative, invigorated, interconnected, an inclusive vision of the world economy. ■

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54 STATES AND INFRASTRUCTURE FINANCING CHALLENGES IN AFRICA

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The UN Conference on Trade and Development estimates that between $1.6 trillion and $2.5 trillion is required annually for the period 2015–2030 to bridge the infrastructure-financing gap in developing countries. Some estimates indicate that sub-Saharan Africa alone requires up to $93 billion annually until 2020 to finance its infrastructure deficit. Multilateral Development Banks (MDBs) such as the World Bank and the African Development Bank go a long way towards addressing these challenges.

MDBs do this by offering their borrowers favourable financing options by leveraging capital contributions from their members on international bond markets, which, in turn, translate into loans with low interest rates and long maturities. In addition to such attractive financial offerings, MDBs also harbour decades of infrastructure development knowledge and technical experience, giving them a competitive advantage over other financiers.

However, MDBs increasingly face tough competition from other financing sources such as private financiers and bilateral investors (think Chinese investment in Africa). In response, they recognise the need to tailor their financial offerings to suit their clients better.

'Africa' is often presented as a single country with common development challenges, ignoring the reality that the continent is made up of 54 sovereign nations with differing histories, economic structures and levels of development. While some similarities certainly exist, MDBs increasingly have to grapple with disparities when engaging with low- and middle-income countries (LICs and MICs) in Africa.

The World Bank distinguishes between countries, classifying them as 'LICs' or 'MICs' based on their gross national income (GNI) divided by the size of their population. Countries with a GNI per capita below $1005 are considered LICs, while countries with a GNI per capita between $1,005 and $12,736 are considered MICs. Examples of LICs include Lesotho, Senegal and Tanzania, while countries such as Nigeria, Botswana and South Africa are considered MICs. MDBs, as well as a range of stakeholders engaging with these countries on infrastructure financing, are increasingly recognising the significant disparities among them.

For many LICs, the limited financial capacity of the state has not only meant that they cannot afford to finance infrastructure themselves, but equally that they have limited capacity to borrow from MDBs. This means that LICs traditionally qualify for concessional loans instead, which have very low interest repayment rates. In contrast, MICs have experienced increasing economic growth and therefore qualify for bigger loans from MDBs.

At the same time, many MICs tend to have higher levels of macroeconomic and political stability and more sophisticated legal and institutional structures, which make them less risky investment destinations. Consequently, private financiers are keener to invest in these countries. Equally, as MICs move up the development curve, they have developed sophisticated domestic financial markets, allowing their governments to raise capital from their local markets. Over the past decade, Botswana has managed to increase domestic resource mobilisation from $40 million in 2005 to $600 million in 2015. While these figures remain marginal relative to the typical capital required for large-scale infrastructure developments, it signals the increasing financing alternatives open to MICs.

This is not to suggest that LICs do not have alternative financing options as well. In the past, LICs have been heavily reliant on official development assistance (ODA) from developed countries to finance infrastructure. ODA, however, has experienced an overall decline in the post-global financial crises; it reached nearly US$90 billion in 2009 compared to the US$35 billion per year for the period 2012–2014.

Due to the limits placed on borrowing from MDBs and declining ODA, some LICs have reached out to private investors to address their infrastructure financing deficit. While private financiers facilitate loans significantly quicker and with less stringent conditions, this too comes at a cost. Whereas concessional loans from MDBs can attract less than 1% interest, a grace period of 10 years, and a maturity of 20 – 50 years, an equivalent loan from private financiers can carry interest rates as high as 7% with maturities of below 10 years.

Such expensive loans further compound a debilitating characteristic of LICs: indebtedness. Senegal's inability to access sufficient levels of concessional financing resulted in the government issuing Eurobonds in 2009 to mobilise additional finance at interest rates of 8.75% and 6% - a very costly option for the government.

The level of economic development also often dictates the different types of investments that LICs and MICs seek. Financing from MDBs and ODA is an important way for LICs to ensure the supply of public goods to its citizens. Therefore financing from these sources generally tends to focus on social sectors such as education and health.

In contrast, MICs typically seek out significant capital to fund large scale infrastructure to facilitate inclusive growth, hoping to create more employment which will reduce inequalities. Between 1967 and 2015, AfDB loan and grant approvals to the social sector in Lesotho were more than 20% whereas in contrast in South Africa, approvals in the social sector were negligible compared to infrastructure which exceeded 70% of total approvals.

Once MDBs have extended loans to countries, they typically employ their own standard financial management processes for the disbursement of the loans. While this certainly makes the process easier for MDBs, it adds a significant bureaucratic burden for borrowing countries, who not only already have their own public financial management systems in place, but also borrow from multiple MDBs. This requires borrowers to comply with each MDB's respective procedures and protocols, instead of using in-country systems.

While MICs have increasingly insisted on employing their own reporting mechanisms for such processes, the capacity of many LICs to do so remains low and they typically favour using the prescribed mechanisms. In this case, MDBs need to be cognisant of such disparities and should respond to the individual needs of countries if they want to remain relevant.

While there are multiple examples of differences between LICs and MICs, there are also common challenges with regard to infrastructure financing. Most countries in Africa lack the capacity to adequately engage in all processes related to infrastructure development, including planning, financing and preparation. Often the skills to undertake environmental or financial assessments, or the legal capacity to negotiate financing deals are lacking. This lack of skills becomes apparent for countries wanting to engage in public-private partnerships (PPPs), where public and private financiers operate together when financing infrastructure.

The government of Lesotho, for example shouldered disproportionately high costs in its joint venture with a private firm managing the Queen Mamohato Memorial Hospital. Equally, Botswana has been struggling to facilitate PPPs despite the establishment of a dedicated PPP Unit in 2009 because of the lack of domestically available skills in both the public and private sectors.

Equally important are the types of projects that require funding across both LICs and MICs. Investment trends indicate that private financiers have in the past favoured financing infrastructure in the information and telecommunications sector, and more recently energy infrastructure.

Typically this is the case because it is easier to secure revenue streams from such investments and the associated costs are clearer, while management of the assets generally also sits with the investor, rather than governments. These factors contribute to lower risk associated with investments in these sectors and have assured greater appetite from private financiers. In contrast, sectors such as water and sanitation across all countries have attracted little investment outside of MDBs and ODA, due to lower, less secure and longer returns on investment. In this regard, public institutions such as MDBs remain critical to assisting African countries in developing these sectors.

"When it comes to infrastructure financing in African countries, numerous common challenges exist across the development spectrum"

Structural economic challenges have also been a key concern for most countries in Africa. While some countries such as South Africa have managed to diversify their economies somewhat, others such as Nigeria, Angola, Zambia, and Sudan, remain overly reliant on single commodities to generate the bulk of their income. During commodity price booms, these countries naturally benefit. However, the current global commodity crises has highlighted how vulnerable such economies are to commodity price shocks. While investment in infrastructure could be used to counteract the economic slowdown, a drastic reduction in state revenues hinders such efforts.

However, there is further room for improvement in how MDBs assist African countries to fill the infrastructure financing gap. LICs and MICs both complain about the extensive loan approval process which they deem to be overly bureaucratic, lengthy and costly. The AFDB's loan approval process, for example, involves more than 20 approval processes, including multiple country visits. While the merit in front-loading related processes lies in mitigating potential issues down the line when implementation has started (eg. environmental degradation or social backlash), the process can take MDBs years to approve, while private financiers can process loans in weeks or months.

At the same time, African countries across the development curve are drawn to MDBs given their development and technical expertise. In the case of the AfDB, it has been providing such services for more than six decades, and has not only honed its development approach through trial and error, ensuring the most effective development impacts for its projects, but has equally attracted some of the best experts to provide technical assistance and policy advice to governments.

While this is certainly an attractive offering to African countries, if MDBs do not make concerted efforts towards adapting their approaches to individual African countries, these countries will increasingly gravitate towards alternative financiers that are not as concerned about development impacts.

When it comes to infrastructure financing in African countries, numerous common challenges exist across the development spectrum. But equally, differing levels of economic development ensures that each country faces certain unique challenges. While the simplistic differentiation between 'LICs' and 'MICs' highlights such differences, further disparities exists even within these groupings. In order for MDBs to remain relevant in the coming years, more attention should be paid towards tailoring their technical and financial assistance on a country-by-country basis. ■

Is AGOA working for Africa?

William Gumede is Associate Professor, School of Governance, University of the Witwatersrand, Johannesburg; and the author of South Africa in BRICS: Salvation or Ruination[1]

Introduction

Has the Africa Growth and Opportunity Act (AGOA), a US law passed in 2000, to help African countries export some products quota-free and duty-free to the US, substantially benefited African economies? If AGOA has not benefited African countries, what can they do to make it work better for them?

African critics have increasingly charged that AGOA has disproportionally benefited US exporters, companies from emerging markets such as China, who use the act to send their products to the US through Africa and that act have not help expand its manufacturing sector.

The United Nations Commission for Africa (UNECA) rightly concluded that although that trade flows between the Africa and the US have grown nearly threefold over the period since AGOA have been in place, and that 70% of this rising trade is because of AGOA[2]. However, UNECA concluded 'these flows still do not reflect the natural symbiosis that should exist between the world's largest economy, and the world's fastest growing region'[3].

Newly elected US President Donald Trump has vowed to adopt an 'America First' trade policy and may renegotiate all foreign trade deals[4]. This means that AGOA, which includes 39 African countries in trade with the US, may also be open for review.

President Barack Obama in June 2015 renewed AGOA for another 10 years before it was about to expire in September 2015. Then President Bill Clinton steered the original 2000 AGOA bill to give trade preferences to over 6,400 African products.

AGOA rules of origin too lenient, US subsidies undermine African products

A research paper published by the Centre for the Study of African Economies at Oxford University have reported that Chinese textile companies, for example, set up in Africa and send their products from Africa to the US, under the guise that the products were made in Africa, and in so doing get free access to US markets[5]. Africans have little input in the assembly of such Chinese products, neither is much value-added to African economies.

This practice is called transhipment. AGOA officially prohibits the practise and any non-African company found to have done so by US authorities are banned for 5 years from exporting their products to the US under the AGOA framework. The rule of origin provision of AGOA states that African exporters must either source certain inputs for their products locally or from the US.

However, AGOA is very lenient about rules of origin – how much value should take place at the African country from a product is exported to the US - of products that can access the US market[6].

Both the World Bank[7] and International Monetary Fund[8] have criticised AGOA for excluding key African products and for providing subsidies to US companies deemed to be under threat from African competition under AGOA. When President Obama in June 2015 renewed AGOA, the renewal was accompanied by another bill which extended protection to US workers from foreign trade.

The US subsidized its agriculture sector, for example, cotton – which many African countries export[9]. Former US Trade Representative Ron Kirk for example said that the US could only cut some agriculture subsidies, such as cotton, as part of larger agreements, which would have large developing country economies such as Brazil, China and India, also agree to open their markets to the same products[10].

What Africa need from trade deals

A core requirement for Africa, if the continent wants to achieve a higher quality, more equitable growth, is for countries to add value to the raw materials it extracts and to diversify into manufacturing and services. This will create more jobs for Africans, and result in more equitable and sustainable growth rates, and generate more wealth for African economies.

Africa has been prevented from doing this since the end of colonialism and the Cold War by industrial nations which have erected high trade barriers to products have been transformed from raw materials to manufactured products

"Both the World Bank and International Monetary Fund have criticised AGOA for excluding key African products and for providing subsidies to US companies deemed to be under threat from African competition under AGOA"

– which means value has been added, coming from Africa. However, raw materials from Africa usually do not have the same high tariff barriers in industrial countries.

African economies have suffered, with lost wealth, jobs and economic growth, because African countries continue to export raw materials to both industrial and developing countries, while these countries export manufactured and beneficiated products to Africa.

The latter create jobs and are more valued, yet are ironically often made from the cheap African raw materials, exported back to Africa as a more expensive finished product. Some emerging powers, China and Brazil, are even transplanting their manufactured goods from their home base to Africa.

The success of any trade deal between Africa and other industrial or emerging market therefore is based on whether Africans can export, or develop home-grown value-added manufacturing, to be exported to these countries; and whether these industrial and emerging market countries will such value-added and beneficiated products coming from Africa. Most African countries export raw materials, whether oil or metals, or an agricultural product. AGOA currently favour African raw materials for easy entry into the US and restricts African manufactured or value-added products[11].

African countries desperately need policy space to come up with their own independent policies. Currently, most developing and African economies do not have the policy independence to adopt unorthodox economic policies to stimulate their own economies – lest they face a backlash from the markets, foreign investors and Western governments.

Only if African countries have the space to decide what policies to pursue can they, what United Nations Conference on Trade and Development (UNCTAD) Secretary-General Supachai Panitchpakdi calls, turn their economic gains into 'real productive capacity'[12]. Trade deals with partners that restrict African countries abilities to come up with their own policies undermine their individual development. AGOA puts restriction on the type of economic policies African countries, who are beneficiaries of it, can pursue[13].

AGOA is only available for African countries that have adopted a set of countries policies – or are making progress doing so, of country policies that are approved by the US[14]. These include having established market-based economies, reduce their trade barriers for US companies and protect US intellectual property.

Unpacking the US-Africa trade

AGOA has since its inception contributed to a 78% increase in overall trade between Africa and the US. Even with AGOA, China surpassed the US as Africa's biggest trading partner in 2009. At the end of 2013 China-Africa trade was US$210 billion, while US-Africa trade was US$63 billion.

Furthermore, the devil is in the detail of US-Africa trade. US imports from AGOA beneficiary represent only 1% of total US imports.

Energy accounts for 88% of exports from Africa to the US through AGOA, with oil accounting for 68% of AGOA imports in 2014. However, oil imports from Africa to the US have actually declined overall by 80% since 2011.

African exports to the US of natural resources such as crude oil, precious metals and oil seeds have grown under AGOA, while manufactured products such as high-skilled apparel, computer machinery, consumer electronics and motor vehicles have declined. World Bank Group President Jim Yong Kim emphasised the challenge for Africa under AGOA, saying rightly that the continent should focus on developing light manufacturing sectors, which would boost industrialisation, export diversification and job creation[15].

The African countries that have oil and gas dominate the exports under AGOA to the US. Figures from the US International Trade Commission showed that almost 90% of products traded under AGOA went to four countries: South Africa, Nigeria, Angola and Gabon.

African agricultural products may not face high tariff barriers under AGOA, but they face sophisticated, complex and multiple health and safety rules in the US, which effectively translates into high tariff barriers.

If one excludes South African exports, the second largest imports from Africa to the US under AGOA are textiles and apparel. A recent study by the US Congress Research Service showed that African countries which export significant textile and apparel to the US, the AGOA trade has not been able to move the African production from low-skill apparel production to higher skill manufactured products.

Kenya's President Uhuru Kenyatta said African efforts to diversify their exports to the US away from energy have not been 'fully realised'[16]. Too few African countries that are part of the AGOA deal actually utilises it. For example, in 2014, only 7 out of the 39 African countries that form part of the deal actually utilised it[17].

US opposes African calls for more access to US markets to products African countries produce

The US under the Obama administration have opposed African countries requests to have more African products securing access to US markets under AGOA; instead, arguing that African countries should better use current provisions of AGOA – that is, try to expand the exports of products to the US already listed under AGOA. Kirk said *"the answer is not expanding the list of AGOA products"*, but *"increasing the utilisation of AGOA"*[18].

Yet, Africa needs access to US markets for more of the products they produce as well as expanding the exports of products currently listed under AGOA[19]. Many of Africa's key agricultural products are not included in AGOA or face restrictions - for

World Commerce Review is pleased to announce that the College of Business and Economics at UW-Whitewater has been awarded Best On-Line Business Education 2017.

The selection panel took into account service innovation, on-going customer support and best practice criteria.

In addition, forward planning and CSR were seen as key areas for the award committee.

The World Commerce Review awards are recognised as the principal indications of professional conduct and excellence.

example sugar, cotton, leaf tobacco and peanuts. Many of Africa's light manufacturing products also face restrictions[20].

What should African countries do?

To be beneficial for Africa, trade deals for African countries must be integrated into their individual national long-term industrialisation plans. The problem is that most African countries do not have national long-term industrialisation plans.

African countries need to firstly adopt coherent, integrated and practical long-term industrialisation programs, currently lacking in most African countries. Collectively, African countries must ensure that AGOA - and all other continent-wide trade deals - must be integrated into Africa's own home-grown industrialisation policies, such as the Corridor Infrastructure Build Program.

South African Trade and Industry Minister Rob Davies puts the challenge to Africa: *"African countries should also ensure that there is alignment between AGOA and their development integration agenda, focus on their industrialisation and preserve policy space aimed at enhancing efforts to diversify their exports base and integrate supply chains so as to take advantage of market access opportunities under AGOA."*[21]

African countries need to diversify the products they produce. They need to add value to current oil, metals and agricultural products they produce. But African countries must also diversify their trade with other developing and industrial countries. African countries must trade more with each other.

African countries should also use AGOA better to trade with each other and create regional value chains. UNECA pointed out how before Madagascar lost its AGOA eligibility, it had sought inputs for its garment from other Sub Saharan African countries: Zambia supplied cotton, Lesotho and Mauritius supplied fabrics and zippers came from Swaziland[22].

Kenyan leader Uhuru Kenyatta said African countries face *"enormous challenges such as lack of competitiveness, supply capacity constraints, weak infrastructure base, low flow of private investments from the US, lack of access to finance, and low technical capacity"*[23]. African countries will have to deal with such challenges with greater resolve. ■

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World Commerce Review is pleased to announce that Global Bank of Commerce Ltd has been awarded the Best Bank for Wealth Management and Personal Banking 2017.

The selection panel took into account service innovation, on-going customer support and best practice criteria.

In addition, forward planning and CSR were seen as key areas for the award committee.

The World Commerce Review awards are recognised as the principal indications of professional conduct and excellence.

SAXONY

A great future built on past foundations

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The German region of Saxony has many tales to tell and has been at the centre of the country's history, and future. The digital heart of the European semiconductor industry beats in Dresden. The commercial centre, Leipzig, is home to a vibrant and bustling trade fair and media city; its airport is Europe's most modern air cargo hub, providing 24/7 services. And the Chemnitz-Zwickau region is considered as the traditional heart of Saxony's economy. Whether it is mechanical engineering expertise or its more than 100-years old Autoland Saxony – a strong and highly efficient industry has evolved in the region through smart ideas and intelligent solutions.

To cut a long story short: Saxony is a top location for such globally active enterprises as Volkswagen, BMW, Porsche, GLOBALFOUNDRIES, Infineon, DHL, Solar World and many more.

Infrastructure and location

Seen from a geographical perspective, Saxony is located right in the heart of Europe. Since time immemorial it has been the intersection of the major thoroughfares on the continent. The Via Regia (Rhineland to eastern Europe) and the Via Imperii (Italy to the Baltic Sea) were the most important crossroads in the Middle Ages, and today it is the E40 (which runs from France to Kazakhstan) and the E55 (which runs from Sweden to Greece). All of these routes pass through Saxony.

Its central location has proven to be a real geographical advantage for Saxony. This is why the logistics giant DHL decided to relocate its European air cargo hub from Brussels to Leipzig. In addition to providing an ideal location, Saxony's environment is perfect, too. At Leipzig/Halle Airport, cargo liners can be handled 24 hours per day and 365 days per year, providing the best possible prerequisite for mastering the constantly increasing air freight volume.

And the region also provides a superbly developed transportation network that interconnects rail lines, expressways and waterways with great mobility and versatility. This permits the quick forwarding of goods to the expanding markets in Eastern Europe.

A logistic masterpiece

Saxony's transportation infrastructure is capable of successfully handling extreme challenges. For example, the gigantic A380 airbus landed on the Elbe River right in the middle of Dresden's cargo port in 2004. To be more precise, the air giant, which was still incapable of flight, was actually delivered by ship. The rest of the trip was successfully continued on the federal expressway. Its destination was the large-scale test hangar on the IAB GmbH at Dresden Airport, where the new super jet was tested to the limits of its static load capacity in cooperation with IMA GmbH.

Economy and industry sectors

The Industrial Age began in Saxony in the 18th century with the founding of the first machine manufacturing enterprises. Since then, the region has stayed ahead of its rivals on the European mainland. It was the home of the first locomotive to be designed and engineered in Germany, the first six-cylinder engine and the centrally-positioned gearshift lever in automobiles. In the mid-19th century the industrial cities of Chemnitz and Zwickau and their suburbs had the highest per capita income in Europe.

And the success story continues: since 1990, about 6,000 companies have set up or purchased business premises in Saxony. These enterprises have invested approximately €35 billion. The region's economy has increased by 11.2% since 2000, the highest economic growth of all federal states in Germany.

Autoland Saxony

BMW, Porsche and Volkswagen are all active in Saxony. Car manufacturing in the region dates back to when August Horch established his automobile factory in Zwickau more than 100 years ago. The first vehicles that he designed bore his name – Horch, though later models were known by a more familiar name: Audi.

Since that time the automobile industry has become the predominant economic sector in Saxony. It now accounts for more than one fifth of all industrial sales in the region. But not just in Saxony itself, the Free State is one of Germany's main hubs of car production. Also, almost every eighth car made in Germany comes from Saxony.

But Autoland Saxony is not just a renowned automobile maker. About 750 supply companies from the backbone of Saxony's automobile manufacturing industry.

German mechanical engineering

Saxony can justifiably call itself the cradle of German and Continental European mechanical engineering. The ingenious Chemnitz entrepreneur Carl Friedrich Bernhard returned to Saxony from a business trip to England with the spinning master and machine builder Evan Evans. With the help of Evans, in 1798 Bernhard transformed his spinning mill in Harthau into the world's largest mechanical spinning mill. This marked the beginning of the triumphant start of Saxony's industrialisation, which has since been a virtually unparalleled success story.

Today machines produced in Chemnitz enjoy an excellent reputation throughout the world. For example, Chemnitz-based corporate groups such as Niles-Simmons-Hegenscheidt and StarragHeckert are renowned internationally. Germany's oldest toolmaking factory – the UNION Chemnitz founded by David Gustav Diehl – is a leading manufacturing of boring and milling machines. A more recent company is the Metrom GmbH in Hartmannsdorf. The company develops parallel kinematic machines that have one of the most innovative designs in the field of mechanical engineering.

Silicon Saxony

Every second chip produced in Europe bears the imprint *Made in Saxony*. GLOBALFOUNDRIES and Infineon Technologies have expanded and continue to expand their Dresden Fabs into the world's most automated and innovative semiconductor production sites. Saxon enterprises and research institutions are the global leaders primarily in such innovative fields as new materials, digital manufacturing smart systems, organic and printed electronics, and next generation mobile (5G) communication.

Silicon Saxony is Europe's largest microelectronics cluster, and when it comes to technology it is one of the most innovative ICT clusters in the world. Approximately 2,200 companies with more than 58,000 employees develop, manufacture, and promote integrated circuits, serve the chip industry as

> *Saxony can justifiably call itself the cradle of German mechanical engineering [and] has since been a virtually unparalleled success story*

material and equipment suppliers, produce and distribute electronic products and systems based on integrated circuits, or develop and promote software at this location.

Greentech made in Saxony

Energy and the environment are topics that will always dominate investment discussions worldwide. The demand for intelligent solutions and innovative technologies in environmental technology, renewable energies and energy efficiency is increasing. In Saxony the environmental and energy technology sector has become an important economic factor. Environmental technology contributes more than 6% to Saxony's GDP, and more than 20,000 people are employed in this sector.

Saxony's enterprises hold a leading position in such key markets as power generation and energy storage, as well as recycling management. The industries benefit from Saxony's long tradition as an industrial venue specifically for machine and plant construction.

Saxony's mountains have been vibrant mining centres for many centuries – during the Middle Ages, silver and other precious raw materials were extracted; later, the focus was more on lignite and uranium. This is the foundation for the expert knowledge and competence found in Saxony's commercial enterprises and research institutions today, which is unrivalled throughout the world, primarily when it comes to cleaning up uranium and lignite mining residues, removing hazardous waste, or renovating wastewater systems.

Furthermore, Saxony is considered to be the German competence centre for renewable energies, in particular, photovoltaics (PVs) and energy storage. Specifically in the solar industry, the region ranks among the top locations within Europe. From research facilities to manufacturers of basic materials (silicon, glass), as well as wafers and cells all the way to end producers and module manufacturers, the entire value creation chain is present in Saxony. All relevant PV technologies – including crystalline, thin film and organic PV – are located right here.

Saxon machine and plant companies are also among the leading manufacturers of automation solutions and special machinery for PV producers. In an increasingly adverse environment, the PV branch focuses on cooperation with the equally vibrant neighbouring regions of Thuringia, Saxony-Anhalt and Berlin-Brandenburg. The joint network Solarvalley Central Germany, a top cluster supported by the federal government, promotes specifically the research and development sector.

Room for manoeuvre

Although so many investors have already secured their prime spots in Saxony, there is still plenty room across the free state for companies looking to invest, says Peter Nothnagel, managing director at the Saxony Economic Development Corporation, a local investment promotion and facilitation entity.

"Plots that we can find for investors are available immediately and at fair prices," says Nothnagel. Land for development is not the only asset that the state has abundance, he adds, given that 95% of Saxony's workforce has earned at least a university entrance diploma or have completed vocational training. *"Our workers have enough training and work ethics to show what German precision and quality is all about. They know how to make products as they should be."* ■

WIRTSCHAFTSFÖRDERUNG
SACHSEN

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Advancing *the* digital economy

Choosing a digital jurisdiction to base your operations in is a complex process. In a Q&A with World Commerce Review Grant Gibbons, the Bermuda Minister of Economic Development, outlines the Bermuda advantage

What is the role of Bermuda's Department of E-Commerce?

As a key part of the Ministry of Economic Development, the Department of E-Commerce's mission is to develop a progressive policy framework that facilitates the adoption and advancement of Information and Communications Technologies (ICT) skills and innovation. The Department works to ensure that Bermuda continues to be recognised as a prime jurisdiction that leverages and advances the digital economy.

The E-Commerce Department is primarily outward-facing and is concerned with the technology, e-business and e-commerce agenda of the country and its strategic development, ensuring that the appropriate legislative and policy framework is in place for both business and residents.

The Department is involved in the areas of e-commerce, e-business, cybersafety, cybersecurity, technology literacy and development, and internet governance.

Its role includes:

- Supporting Bermudian participation in the global information economy,
- Advising on regulations, standards and guidelines,
- Promoting information and communications technologies for conducting business, and
- Supporting initiatives in electronic commerce.

What is the Bermuda advantage?

Bermuda is an ideal environment for technology companies. It boasts excellent fiber-optic connections, a talented service pool, a robust IT, legal and regulatory framework, and significant access to capital for investment and expansion. The Island also enjoys global branding as a secure, safe and friendly jurisdiction for business.

Many Fortune 500 companies have a Bermuda presence and have capitalized on the fact that, among its other advantages, the Island is ideally positioned at the crossroads of North and South America and Europe, with excellent air links to the east and west.

The Island is a world leader in insurance, reinsurance, international business and finance. When it comes to ICT, we have been known as the wired island for over a decade. Bermuda provides a full complement of IT services and support, redundancy capability, cloud and digital certificate services, in addition to disaster recovery services. For ICT products, Bermuda honours global pricing and imposes no customs duties or taxes on software products.

Bermuda has fostered a booming e-business environment: 99% of corporate entities have internet access and 93% of them use ICT for business-to-business transactions. On a similar note, 99% of companies have secure servers in place, confirming that information security goes hand in hand with technology. The country boasts local success stories in e-business, both in security and payment processing, and these local companies have gone on to become recognised leaders, providing services to global customer bases, including some European governments.

On the macro level, Bermuda's first-rate ICT infrastructure includes four (4) redundant fiber optic cables linking the island directly to international markets. There is a proliferation of mobile and data providers offering 3G, 3G+, and 4G networks, (and LTE is coming) and high speed connections.

Our focus on innovation has us literally reaching for the stars, as Bermuda has a developing satellite industry that provides a number of global business opportunities due to the position of our orbital slots. We are also well-positioned geographically for the location of tracking stations for satellite launches.

The Bermuda advantage can be summed up as a supportive regulatory framework and a sophisticated ICT industry and infrastructure – all aimed at enabling new e-business models.

What support can inward-coming companies expect?

Businesses locating on the Island can expect to find the full complement of traditional ICT services and support right here on our shores. Bermuda's ICT sector is a tight-knit community where associations keep members abreast of the latest developments. The Government and the private sector work closely together to advance the Bermuda brand and reputation, and to guarantee a coherent, transparent, and supportive foundation upon which businesses can grow and thrive.

The Bermuda Business Development Agency (BDA), a public-private partnership, offers a Concierge Service to all new businesses who are locating/relocating to Bermuda. Their Concierge team is the primary point of contact to connect clients with industry professionals, Government and regulatory officials, and service providers including realtors, law firms, auditors and relocation

> *The Bermuda advantage can be summed up as a supportive regulatory framework and a sophisticated ICT industry and infrastructure – all aimed at enabling new e-business models.*

experts. They aim to assist entities that are considering establishing operations on the Island. The BDA makes introductions and follows up with clients to facilitate the process.

The BDA's Concierge Service provides a one-stop-shop for businesses considering relocation or startup operations in Bermuda. In partnership with the Government, they are committed to helping a new company succeed and welcome those who wish to invest in Bermuda. Their goal is to help get your business off the ground quickly and make doing business in Bermuda straightforward.

Tell us about the Bermuda workforce

The Island has a well-educated and talented labour pool. The high internet penetration in the Island's homes and schools has produced a highly technology-literate population. In fact, 89% of Bermuda residents have internet service in their home and 85% own a smartphone. 89% of residents who own more than one computer have a residential computer network, 95% of which are wireless and 94% of those wireless networks are secure[1].

This is the population that feeds Bermuda's workforce, which in turns feeds a local ICT sector that has undertaken many global projects and has ties to major IT service organisations around the world. It consistently provides services to world leaders in insurance, reinsurance, international business and finance that call Bermuda home and provides them with:

- a sophisticated ICT industry founded on a first-rate telecommunications infrastructure,
- a full complement of IT services and support,
- cloud, digital certificate and security services, and
- data centre hosting, business continuity, and disaster recovery providers.

Every other year, the Department of E-Commerce's produces its *State of ICT in Bermuda* report, which assesses the prevalence of ICT in Bermuda from an infrastructure, usage and skills perspective.

In 2014/15, the report looked into evolving attitudes related to Bermuda's adoption of new products and services in order to remain competitive. It showed that 96% of residents agreed that such adoption was important for Bermuda. 90% agreed that having a strong knowledge of technology was essential in getting ahead today, and 85% believed that technology helped them to be more creative or innovative.

Describe a typical success story

Trunomi is a good example of how Bermuda is fast-becoming a hub for technology and innovation. Trunomi[2] is a Bermuda startup which has also opened offices in Silicon Valley and London.

At Bermuda's Technology Innovation Awards in 2014, the International Innovation of the Year was presented to Trunomi, a pioneering company that has developed an online personal identity protection tool for the financial services industry. Holding a number of US and global patent filings as well as trademarks and copyrights registered and held by its Bermuda office, Trunomi is empowering consumers to take ownership of their own personal data and away from institutions and big business.

Today, Trunomi continues to make waves in the global Fintech & Regtech landscape. In September 2015, it announced the closing of its first venture capital-funded raise of $3 million. It also won the Visa Europe & Accelerator Network Innovation Competition, resulting in a paid proof of concept with Visa Collab. Trunomi was named as American Banker & BAIs' FinTech Forward Company to Watch. Further awards in 2016 include two Benzinga Fintech Awards for Best Proprietary Technology & APIs and Most Promising Startup.

Founder & CEO Stuart Lacey's focus this year has been on expanding Trunomi's global reach and distribution. He has formed partnerships with global financial technology firms Fujitsu, Intelligent Environments and FIS as well as starting exploration into other verticals – including TELCO & Insurance.

As reported recently in the media, the company is providing specialist technologies to significant, global-reaching projects, specifically *"customer consent management and data permissions in compliance with EU General Data Protection Regulation[3]."* Having raised a further $3 million in a second venture capital round in September 2016, the team in Bermuda continues to grow and Trunomi remains proud to be leading the Fintech revolution in Bermuda.

How do you see the digital economy in Bermuda developing?

Bermuda's strategy has been to support an environment that will allow the Island to leverage the opportunities brought about by the digital age.

When it comes to ICT, Bermuda provides a state-of-the-art regulatory and technological infrastructure that facilitates e-business and provides a sophisticated, agile, and supportive environment for businesses to thrive on- and off-island. This is at the heart of what Bermuda has been for centuries: an island of explorers, innovators, and early adopters.

To help achieve that, we were among the first in the world to adopt an Electronic Transactions Act in 1999 that includes a Code of Conduct which provides minimum standards for e-commerce service providers and which has the force of law. The Certification Service Provider Regulations (CSP) were passed in 2002 establishing guidelines for CSP providers and issuers of Accredited Digital Certificates, allowing reliable security and authentication, an important tool in our hyper-connected business community.

To further enhance the Island's ICT infrastructure, the independent Regulatory Authority was established in 2013 to supervise the Telecommunications sector. It aims to benefit businesses and consumers by increasing competition, speeds, and service offerings. It is capitalizing on the fact that Bermuda is an excellent test bed for apps and other technologies with global marketability.

Recent developments on the telecommunications landscape have created a more competitive and agile industry that has provided Bermudians with reduced pricing and higher speeds. They've also underpinned significant investment in the sector, which we expect will result in a next-generation telecommunications and fiber-to-the-home infrastructure across the Island.

Last but not least, Bermuda legislators recently passed the Personal Information Protection Act 2016, which provides a unique privacy model and legislative environment. It aims to facilitate and secure local and transnational data flow in order to provide an additional level of comfort for international customers who have their data hosted in a Bermuda cloud. This allows Bermuda to achieve the balance of protecting sensitive personal information and respecting international privacy principles while acknowledging diverse economic ties.

All of this allows Bermuda to offer an attractive package to our locals and visitors, individuals and companies, in this era of big data and cloud computing. ■

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Internet governance and global goals – strength in diversity

Elizabeth Thomas-Raynaud is Senior Policy Executive at the International Chamber of Commerce (ICC) and Director, Business Action to Support the Information Society (BASIS), an ICC initiative

In today's interconnected global economy, it is widely acknowledged that inclusive digital connectivity has a pivotal role to play in advancing the UN's 17 Sustainable Development Goals, adopted in September 2015 as a path to end poverty, protect the planet, and ensure prosperity for all.

Discussions at the Internet Governance Forum, which took place in Guadalajara, Mexico 6-9 December, endeavoured to contribute to better understanding of the role the internet can play in achieving these Global Goals.

Internet-enabled technology is not a goal but rather an important enabler for most if not all the 17 SDGs. Simply put: if we want to help people feed, heal, educate and employ themselves, we need to ensure they can benefit from the internet and not just use, but also create related technologies and services that are relevant to themselves, their communities, and their countries.

Recognizing the potential of information and communication technologies (ICT's) to catalyse sustainable development brings into view the importance of efforts to ensure that digital economy growth is not only sustainable but also inclusive. Despite significant advances in the last 10 years, more must be done to ensure internet access for everyone, and to facilitate use of the internet as a means of empowerment to transform lives and economies.

The challenges ahead

The challenge of connecting the world will require us to better understand persistent barriers and focus actions on overcoming them.

Private sector investment and innovation has transformed the internet from an information exchange network to the platform for sustainable, social and economic development we recognize it to be today. And the engagement of business, with its own unique voice, will be vital to connect people, communities and things to unleash and leverage the full potential of technology – to achieve our common goals in the development of vibrant digital economies and to have inclusive information societies that deliver societal benefit.

Connecting the world is a vital first step: but common action must also be taken to build a secure and trustworthy internet.

World Commerce Review is pleased to announce that Brian Stuart-Young of Global Bank of Commerce Ltd has been awarded International Banker of the Year 2017.

The selection panel took into account service innovation, on-going customer support and best practice criteria.

In addition, forward planning and CSR were seen as key areas for the award committee.

The World Commerce Review awards are recognised as the principal indications of professional conduct and excellence.

This requires promoting a global culture of cybersecurity – further developed and better implemented in cooperation with all stakeholders and international expert bodies.

The growing number of multistakeholder initiatives dedicated to cybersecurity capacity building at the local, national, regional, and global level are worthy of noting for their significant potential to enable a new global culture of cybersecurity.

On December 16, 2015, the UN General Assembly extended the mandate of the annual Internet Governance Forum until 2025. The IGF is an open, representative forum, playing an important role in fostering the capacity building and policy discussions necessary for realizing the internet's global social and economic potential.

It has emerged as a unique forum for identifying issues and solutions relevant across stakeholders and economies, with a special focus on those addressing developing world concerns, through a collaborative approach, on an equal footing and in an unfettered and open environment.

If we are to maximize the potential of ICTs to promote sustainable and inclusive development, it is crucial that the future of the forum continues to be shaped through an open, inclusive and truly multistakeholder process.

Better together

Business remains engaged in implementing improvements to the IGF to build on its unique strengths and to enhance the ability to continue addressing complex problems and future challenges.

But it will also take unprecedented cooperation to achieve unprecedented progress.

Continuing cooperation among all internet stakeholders and a flexible policy environment are indispensable for attaining sustainable development goals. Such multistakeholder efforts are essential for continued support of capacity building initiatives that seek to empower individuals and businesses locally as content producers. They are also needed for developing business models that are unique and relevant to national economies.

"Continuing cooperation among all internet stakeholders and a flexible policy environment are indispensable for attaining sustainable development goals"

Together, we must work to ensure that frameworks for enabling internet connectivity are based on light touch ICT policy and regulations. This will not only enable competition and the entry of new players into the ICT ecosystem, but promote new and innovative business models.

In short, the ability to achieve the 2030 Agenda for Sustainable Development in a 15-year timeframe depends greatly on global development cooperation, domestic resource mobilization, private sector engagement, and well-functioning legal frameworks.

The 2016 IGF saw an increased participation by business representatives and stakeholders from developing economies, ensuring the sharing of information globally on the practices that have successfully addressed challenges of sustainability and inclusivity to align with the 2030 agenda.

As the world's largest business organization, ICC and members of our Business Action to Support the Information Society initiative worked to mobilize business participation at the IGF, demonstrating the value of the private sector's role and engagement in policy discussions and ensuring that governance of the internet remains open, secure, stable and inclusive. ■

Why China's new cybersecurity law is a threat to international businesses and innovation

Georges Haour is a Professor of Technology and Innovation Management at IMD business school and co-author of the new book - Created in China: How China is Becoming a Global Innovator (Bloomsbury, London, 2016).

China has the world's largest market for digital shopping, mobile payments, and internet-enabled financial services. Close to 400 million people in China do most of their payments using their smartphones. China's overall business in information technology is a market of well above USD $300 billion, and it is estimated that more than 700 million Chinese have access to internet. So any law impacting the online space—cybersecurity included—will make ripples in the way China does business.

That's why its new cybersecurity law—due to take effect in June of next year—is particularly alarming. It is part of an ongoing government program to reinforce China's cybersecurity, and arguably targets non-Chinese hackers. But it comes amidst continuous tensions between the US and China, not just in terms of cybersecurity (each country has accused the other of hacking), but with trade, the economy, and, of course, the US election, which will inevitably change how business is done between the two nations. The law appears to be counterproductive in several ways.

First, as the law sets forward, important network equipment and software will have to receive government certifications. This means that specific pieces of intellectual property or technical features will have to be divulged, which could easily be passed on to Chinese companies by the regulators behind cybersecurity. It shouldn't be forgotten that the state in China has tremendous power and plays a critical role in economic plans. Government interference is much more prevalent than in Western nations. And under the veil of cybersecurity, regulators will have access to proprietary information that could benefit Chinese firms at the expense of foreign business.

The type of businesses most at risk will be those with special hardware and systems for network management. But it could even include data from and for ATMs. New generation ATMs have a much higher level of connectivity with mobile integration and face recognition. This makes them more vulnerable to hacking and means confidential devices and information will have to be used for protection. And under this law, that creates a big entry place for government snooping.

This law is also counterproductive because companies gathering data in so-called 'critical areas' will have to store that data inside China. At this stage, the definition of 'critical' is worryingly broad. Complying with this requirement will force international firms to make expensive investments to build duplicate facilities within China. This is in total contradiction with the free flow of data, expected to swell in 2020 after the introduction of 5G.

International companies will have to weigh this risk against the opportunity to do business in China. China has had a long reputation for 'copying' without getting insider access, and this law could only open the ease to which China's business

sector can review competition. For international companies there is no easy way forward as the choice is black or white. Either foreign companies will comply, knowing China has a way to peek into what previously was private, or they will choose to stand by principles of privacy at the risk of being excluded from the Chinese market. Despite the challenging dilemma, companies are likely to comply and give in to China's demands. The market is too huge and far too ripe for future growth, especially when compared to more stagnant outlooks in Europe and the US.

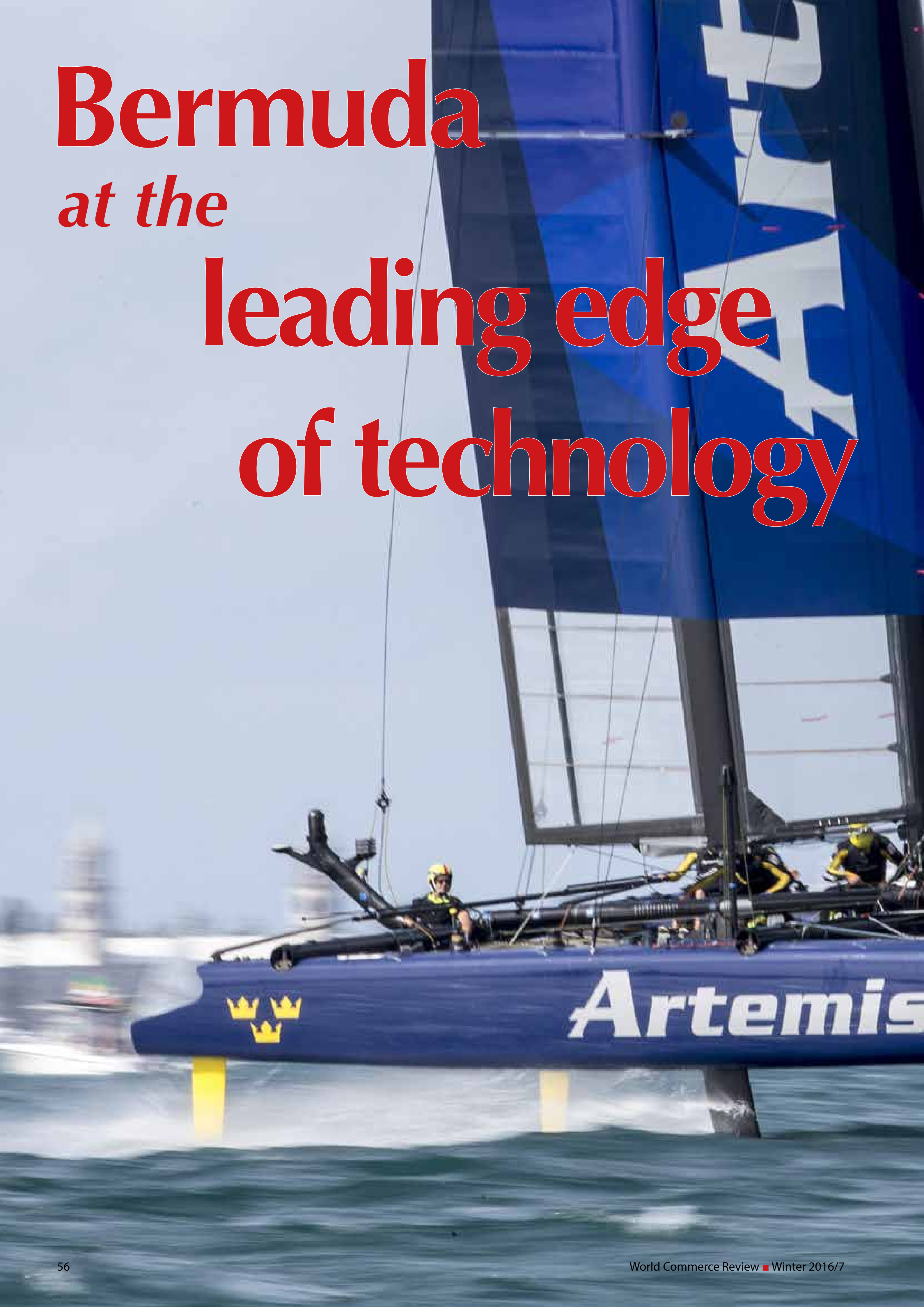
In addition to creating barriers for international business in China, this kind of legislative move goes completely against innovation. It could well be considered to be part of what is called 'indigenous innovation' in China. This consists in favouring Chinese firms by establishing non-tariff barriers, such as specific standards or regulations on products, in order to prevent non-Chinese firms the access to China's large and dynamic market. And the impact would be wide-ranging, from consumer electronics to products such as equipment to produce renewable energy, including windmills and solar panels.

Innovation involves a complex process, but it requires a society to be as open as possible and to allow vibrant exchanges between people. While cybersecurity is important, this law will wrap around the free market as it grips security. Within China, entrepreneurs are, by and large, not bothered by their government's management of the internet, called the 'great firewall'. However, this new law is a new step to tighten the government's grip on the internet. Furthermore, far from favouring China's champions in this very dynamic area, such as Huawei, Lenovo, or Tencent, this law will handicap them in the long term. Maybe the hope is that these companies themselves will fight to alter the law and mitigate the negative implications for China's internet landscape.

"In addition to creating barriers for international business in China, this kind of legislative move goes completely against innovation"

US companies have already began to strongly lobby against the law, as well as China's position that the internet must be managed by authorities. But despite the efforts of any company, Chinese or other, the cybersecurity law is just a piece in a larger ongoing political puzzle that companies will have to deal with. Trump's stance on trade is equally, if not more, alarming for business. In the end, agility will be key for companies to succeed in the tense political environment. ■

Bermuda *at the* leading edge of technology



First contested in 1851, the America's Cup is today's yachting's most coveted prize. The trophy dates back to the Great Exhibition of 1851, organised at Crystal Palace in London by Prince Albert to showcase British technology and excellence to the world. A syndicate of businessmen from New York sailed the schooner America across the Atlantic Ocean to represent the United States at the World's Fair. As the schooner America passed the Royal Yacht in first position and saluted by dipping its ensign three times, Queen Victoria asked one of her attendants to tell her who was in second place. *"Your Majesty, there is no second,"* came the reply. That phrase, *"There is no second,"* is still the best way to represent the America's Cup's singular pursuit of excellence.

In the more than 160 years since that first race off England, only four countries – the United States, Australia, New Zealand and Switzerland – have experienced the euphoria of winning the 'Auld Mug' and only eight cities have hosted the competition. Aiming to continue to perpetually foster friendly competition between foreign countries, the last winner, Team Oracle, chose Bermuda as the home of the America's Cup until the races in 2017.

Bermuda, a first-time host, is an island founded on a legacy of sailing. The last few years have seen the various teams design and build their own America's Cup Class (ACC) boats, which they will use in 2017. While the 50 feet-long catamarans are built to a design rule, there is an allowance for designers and engineers to infuse creativity in their designs[1].

Throughout its history, the America's Cup has been driven by technology. The 34th edition of the America's Cup in 2013 marked a transformation for the oldest trophy in international sport with new wing sail foiling catamarans, cutting-edge technology and a close-to-shore venue. It is therefore no

> *Bermuda is the right place for the America's Cup. It is an island known for its innovation in good and lean times, for its deeply-rooted sailing tradition, and for the ease with which it greets new challenges*

surprise that this sport, with its high demand on the tools and equipment and ever-further reaches into technological prowess, is providing a premier testing ground for technology. One of the America's Cup teams, Artemis Racing, is a professional sailing team founded in 2006 by businessman and sailor Torbjörn Törnqvist. Artemis Racing values the environment where its bases are located and the waters where its boats sail, and that sustainability orientation comes from the team's heritage: Sweden is a country where the environment is of high priority and where the development of technology in the area is advanced[2].

"For more than 150 years, the America's Cup has been at the forefront of yachting technology and the 35th edition in Bermuda is taking development to the very limit of what is possible", says Peter Bentley, one of the engineers working on the foiling fifty-footer that the team will sail in the Cup races next May.

This upcoming America's Cup is only Artemis Racing's second, but the team is determined to take it home to Sweden for the first time. To do that, with a team composed of several Olympic medalists and world champions, it is relying on its designers and engineers to use creativity, innovation, and new ways of thinking in order to build and sail the fastest boat through the undeniable power of technological innovation.

Peter says that his group is composed of highly-competent members trained across the spectrum of nautical activity: aerodynamics, structural engineering, computational flow of dynamics (CFD), and fluid structure interaction (FSI), to name but a few. Basing its research, development, and design on a continuous improvement loop, the team builds on technological advances seen not just in their sport, but also in other areas such as aeronautics, Formula 1, and even the military. This loop ensures that the team's technology, which is using highly-sophisticated software, much of it proprietary, enables them to reach limits that only three years ago would have been unthinkable.

This loop also ensures that before they reach the end-user, commercially-available products have been designed and tested in an extremely demanding environment by elite teams and proven to be high-performance items that are safe and durable.

Peter also explains that technology at America's Cup is not limited to the physical design and build of the catamarans used for training and for the races, or to the survival system, clothing, and gear used by the teams. It also extends to other components of the event, including the actual boundary of the race. That crucial piece of information is only sent to the teams - electronically, of course - a few minutes before the race begins. The virtual boundary is then not only downloaded onto their onboard data systems but also on the team members' personal PDAs so that they may monitor their position on the course and their proximity to the boundary in real-time throughout the race.

Off the boat, America's Cup's teams are just as technologically progressive and impressively skilled at using real-time data loads and analysis. Every day, as they train for the big event - now less than a year away - each team captures data from their sailors and boat and scrutinizes it for a thorough debrief the next day.

Also on a daily basis, the training and nutrition régimes are programmed by trainers and tailored to each team member according to his individual needs, progress, and personal role on the team. Here's where technology once again comes into play: the sailors, while training, use wearables that provide feedback data to their trainer, who are able to download it and look at each sailor's activity and heart rate in real time. That dataset is studied and used to tailor the fitness plans of that specific sailor.

And there is no deadline to stop innovation; no timeline for creativity: new ideas are consistently tested, modelled, presented, and manufactured. The teams have workshops on base for just that purpose: from paint to manufacturing, hydraulics, and electronics, R&D is an on-going process and the search for incremental progress is open-ended.

The America's Cup is an elite sailing contest that is imbued in science and technology. The sailors provide quite the show of strength, meticulousness and speed as they perform well-choreographed movements that show impressive precision. The yachts are among the most technically-advanced in the world and their daggerboards have almost doubled speeds since their recent introduction.

Bermuda is the right place for the America's Cup. It is an island known for its innovation in good and lean times, for its deeply-rooted sailing tradition, and for the ease with which it greets new challenges. The America's Cup has found a uniquely hospitable home in the Island and next year's event promises to be an exciting race in a phenomenal location. ■

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World Commerce Review is pleased to announce that RA Shaw Designs has been awarded Best Luxury Architect 2017.

The selection panel took into account service innovation, on-going customer support and best practice criteria.

In addition, forward planning and CSR were seen as key areas for the award committee.

The World Commerce Review awards are recognised as the principal indications of professional conduct and excellence.

ABACE2017

TO HIGHLIGHT GROWTH, IMPORTANCE OF BUSINESS AVIATION IN ASIA

Throughout history, all great civilizations have been built upon, and advanced, in large part through the promotion of commerce between nations. In today's fast-paced and increasingly competitive international marketplace, business aviation is a vital asset towards promoting this high level of economic activity in a safe and secure environment.

Business aviation offers the unparalleled capability to safely, securely, and efficiently link large cities with smaller regional markets, including areas that may offer limited infrastructure for ground transportation. This directly serves to increase economic activity and investment in those areas, which in turn boosts regional economies in the process.

That is one reason why the Asia-Pacific region has matured over the past decade to become one of the most dynamic and high-performing markets of the global business aviation industry. Highlighting these diverse missions and objectives, in addition to introducing new businesses to the advantages that business aviation can bring to their companies, is the focus of the 2017 Asian Business Aviation Conference & Exhibition (ABACE2017).

To be held in Shanghai from April 11-13, 2017 in partnership between the National Business Aviation Association (NBAA) and the Shanghai Airport Authority (SAA), and co-hosted by the Asian Business Aviation Association (AsBAA), ABACE2017 will showcase the multiple - and growing - roles of business aviation throughout China and the Asia-Pacific.

When NBAA and our partners launched ABACE in Shanghai more than five years ago, our goal was for the show not to become just an annual event, but also an enduring event. In the years since then, we have seen significant growth in the number of attendees and Exhibitors, and ABACE is now firmly established as a must-attend event for the international business aviation community, and for China's aerospace community.

For example, the footprint for last year's exhibit floor was the largest ever, and 40 percent of the 165 exhibiting companies were based in the region, making ABACE a truly Asian event. The 2016 edition of ABACE attracted attendees not just from China, but from more than 50 other countries, across Asia and beyond.

The Asian region has proven to be one of the most dynamic and high-performing markets of the global business aviation industry, as companies and entrepreneurs have learned that, much like a smartphone or tablet device, business aviation is an indispensable tool for increasing efficiency and

"... business aviation is an indispensable tool for increasing efficiency and productivity, while also providing a secure environment for companies to conduct important meetings and discussions while en route to their destinations"

productivity, while also providing a secure environment for companies to conduct important meetings and discussions while en route to their destinations.

The increasing importance of business aviation to the region was highlighted in a 2013 study conducted by NEXA Advisors LLC, which found that fully 98 percent of the top 50 among *Fortune* magazine's 'World's Most Admired Companies' utilize business aviation as a vital tool in maintaining productivity and global competitiveness. Included on that list were such internationally renowned, Asia-Pacific-based companies as Samsung Electronics and Toyota.

In recognition of the unlimited potential that business aviation represents to companies in the Asia-Pacific region, government leaders have also increasingly embraced policies and initiatives fostering the continued development of a robust aviation network in the Asia-Pacific.

For example, Chinese officials plan to significantly increase their country's investments in aviation infrastructure, including new general aviation (GA) facilities, as part of their latest Five-Year Plan drafted this year. The new aviation infrastructure is part of the land-based Silk Road Economic Belt – including roads and rail lines, energy pipelines and power stations – envisioned to extend west to improve economic connections with Central Asia, the Middle East and Europe.

This important development follows years of enthusiastic participation in ABACE by key officials from throughout China and the across the Asia-Pacific. These important discussions towards further growing business aviation in the region will continue at ABACE2017, where esteemed government officials will share their perspectives on issues relevant to the industry's ongoing development. Attendees will also hear from international aviation officials, and have the opportunity to discuss regional operations with experts on the Asia region.

ABACE2017 will also feature an extensive lineup of business airplanes and rotorcraft on display at Shanghai Hongqiao International Airport, and organizers expect the event's largest-ever static displays and exhibits at the host facility, Shanghai Hawker Pacific Business Aviation Service Centre.

Established business aviation operators, as well as those considering their first purchase of a business aircraft, will benefit from a wide range of informative Educational Sessions throughout the three-day event.

In much the same way business aircraft transcend borders and cross oceans to link cities and communities around the globe, so too will the issues and concerns in one country or region often reverberate across these vast distances.

ABACE2017 will continue to promote the value of business aviation for supporting the transportation needs of companies in all parts of the Asian region, and we look forward to seeing you in Shanghai next year. ■

The Isle of Man Advantage

In a wide-ranging interview, World Commerce Review talks to Simon Williams, the Isle of Man's Director of Civil Aviation, about the continued success of the Island's aviation services sector

The Isle of Man is one of the most politically and economically stable jurisdictions in the world. The Island has one of the highest credit ratings of any offshore financial centre and is one of the world's most sophisticated and well regulated offshore financial centres.

The Isle of Man has an international reputation as a tax-efficient, but responsible and co-operative jurisdiction and appears on the OECD 'white list' of countries complying with the global standard for tax co-operation and exchange of information. The Isle of Man is one of the few countries in the world to be awarded the top 'Compliant' rating for transparency by the OECD's Global Forum. It is anticipated that extension of the UK ratification of The Cape Town Convention to the Isle of Man will occur in early 2017.

Isle of Man companies benefit from a corporate tax rate of 0% (a tax strategy which is compliant with the EU Code of Conduct on Business Taxation). There are no capital or wealth taxes on the Isle of Man. The Isle of Man offers a full range of corporate structures to suit individual or company requirements for owning an aircraft. Furthermore, there is no insurance premium tax.

As a Crown Dependency of the United Kingdom (UK), the Isle of Man falls within the UK's ratification of the Chicago Convention. International Civil Aviation Organisation (ICAO) Standards and Recommended practices are implemented in the Isle of Man and all information required under ICAO's Universal Safety Oversight Audit Programme (USOAP) is maintained and updated. The Isle of Man was audited by ICAO in 2009 as part of the UK USOAP inspection, performing very strongly with results comparable to States with long-established Safety Regulatory systems.

What are the benefits of registering an aircraft with the Isle of Man Aircraft Registry?

The principal benefits of registering an aircraft on the Isle of Man are:

- High regulatory standards
- Excellent customer service levels and award winning international reputation
- Neutral nationality registration prefix 'M'
- Competitive scheme of charges
- Secure mortgage register
- No insurance premium tax
- European time zone
- Professional infrastructure with significant experience in aviation finance
- The Isle of Man is on the OECD 'white list' of countries complying with the global standard for tax co-operation and exchange of information
- Clear and simple taxation regime
- Stable legal and political environment

We employ a large team of experienced airworthiness surveyors resident in Central Europe, USA, UK and the Isle of Man, which enables us to provide an efficient and cost-effective service.

Please describe the history of the Isle of Man Aircraft Registry.

The Isle of Man Aircraft Registry (IOMAR) was established to provide a customer focused service for the registration of high quality private/corporate jets and twin turbine-engine helicopters. The rationale for situating the IOMAR within the Department of Economic Development is to provide a cost-neutral springboard to support the island's flourishing Business Aviation industry.

The Registry commenced operations on 1st May 2007, has proven to be an unqualified success and has grown to become the world's 6th largest private/corporate Business Aviation register. At the beginning of October 2016, just over 9 years since the Registry commenced operations, IOMAR registered its 900th aircraft with over 460 aircraft active on the register. A further milestone has recently been achieved with the issue of the 10,000th initial Flight Crew Licence validation.

What is the philosophy and approach of the Isle of Man Aircraft Registry?

The IOMAR has gained an excellent, award winning reputation. Our motto is *safety with service*. This simple phrase encapsulates what we have sought to achieve from the outset. Although much is made of the aircraft numbers, growth and success associated with the IOMAR, our focus is on 'doing the right thing', that is striking that fine balance between facilitating high regulatory standards whilst delivering excellent customer service to our customers.

Aviation inevitably has developed a myriad of regulations aimed at maintaining high standards of safety. The Isle of Man's Registry Team always seek to be practical/pragmatic in helping owners/operators to understand and then meet those requirements. For example, ICAO Annex 6 Part II Section 3 requires operators of large and turbojet aeroplanes to have an operations manual. We facilitate compliance with those requirements by providing operators with a draft framework template of an operations manual

> “Globally we are the fastest growing, most successful offshore aircraft register and our clients and the industry know why, but we will never take our success for granted. We will continue to listen, adapt and improve with the same enthusiasm that we always have

to ensure that all the key elements of the ICAO requirements and those of Isle of Man legislation are met – the operator then completes the operations manual by tailoring it to their particular operation.

In short: What does the customer want and by when? What are the relevant regulatory and legal requirements? How best can we work together to achieve the goal, safely, cost effectively and in a timely fashion so that the client can just get on with their business?

What services do you provide?

In simple terms the IOMAR registers private/corporate operated business jets or twin turbine helicopters. We specialise in aeroplanes over 5,700kgs MTOM and twin turbine helicopters. Aircraft with a MTOM of between 2,730kgs and 5,700kgs may only be considered for registration if supported by significant economic benefit to the Isle of Man. There is no MTOM restriction for aircraft registered for Isle of Man residents.

By extension to that core business, the Isle of Man also offers a specialist service to assist commercial airliner owners whilst the aircraft is between commercial lease agreements and we refer to this as our ‘parked airliner scheme’. The aircraft would typically come to our register at the point of the lease return; the aircraft will undergo the same process as our executive aircraft for the issue of a Certificate of Airworthiness.

Please describe a typical case.

I’m not sure that there is such a thing as a typical case - client needs vary tremendously and that places the onus on our team to listen carefully and to adopt as flexible and helpful approach as possible. In essence, this means fully understanding client needs then striking the fine balance between facilitating high regulatory standards whilst delivering excellent customer service, all of which has to come in a timely and cost effective manner!

Time pressure is always a factor. This is why, having reviewed ‘task against resource’, so much of my initial focus as Director of Civil Aviation was on ensuring that the IOMAR can meet the increasing demands placed on it.

More broadly what legal and other support is provided within the Isle of Man?

The Isle of Man has become a centre of excellence with regards to Business Aviation and is effectively a ‘one stop shop’ for those wishing to register a business jet and also those seeking top quality advice on all the aspects associated with aviation transactions and ongoing aircraft management. With that in mind, we provide an aviation business directory which can be downloaded from our web site www.aircraft.im to help put new and existing clients in touch with the excellent island-based companies offering the required services.

How do you see the register developing in the future?

Everything that we do is focused on supporting a successful, sustainable long term future for the Business Aviation community and ensuring that IOMAR delivers. We have recruited strongly but carefully over the last two years and have significantly enhanced the IOMAR team by employing highly capable individuals with relevant technical expertise balanced by a strong customer service ethos. By way of concurrent activity, we have introduced an IT support system which has genuinely revolutionised the way we work and delivered significant efficiencies which can be passed on to our valued clients.

We recognise that the nature of Business Aviation operations is 24/7/365, spans the globe and requires significant flexibility. Hence we have made a significant investment in time and money to develop our online services offering. We have successfully implemented the second phase of online services for our customers, with more to follow in the future. Without seeking to dilute our award winning customer focused approach, we are striving to continually develop an extensive online service to support the demands of the industry regardless of time zone.

All currently available evidence points to the fact that international trading conditions are extremely tough and that the global economy is still experiencing significant financial uncertainty. The fact that IOMAR continues to grow at a healthy rate must surely be a strong endorsement of the robust nature of our business model. However, we are not complacent and remain constantly focused on incrementally improving the service we provide.

Conclusion

It is probably reasonable to expect tough international trading conditions to continue. I read about global uncertainty; financial instability; sanctions biting; second hand values plummeting and a new norm being established.

But I remain optimistic for the future; Business Aviation always finds a way, primarily because of the excellent people that work within this industry. The people I meet are full of imagination, technical expertise, drive and determination and that makes this wonderful industry what it is.

As far as the IOMAR is concerned, I honestly believe that we have good grounds to be optimistic; all the enablers are in position and we are well placed to catch the upswing when it comes. All of our work, everything that we have done, everything that we continue to put in place, is focussed on playing our part in supporting industry. We will continue our process of continuous incremental improvement to refine and build on what we have already achieved.

The Registry team and I are totally dedicated to supporting a bright, sustainable future for industry and our clients.

Globally we are the fastest growing, most successful offshore aircraft register and our clients and the industry know why, but we will never take our success for granted. We will continue to listen, adapt and improve with the same enthusiasm that we always have.

In short, we will strive to deliver excellent customer service; continue to facilitate high regulatory standards and maintain continued appropriate growth. ■

Start-up plans affordable supersonic flights

Sir Richard Branson is set to order 10 supersonic jets from Boom, who claim this will herald a new era of supersonic travel

Sir Richard Branson has confirmed that Virgin has options to buy 10 of the recently revealed supersonic Boom jets, which will be capable of flying at Mach 2.2 and cross the Atlantic in three and a half hours. That's San Francisco to Tokyo in under five hours or Los Angeles to Sydney in six. That transatlantic trip cuts the standard seven-hour journey by more than half. With a round-trip price tag of $5,000 it's not exactly 'affordable' travel, but for the world's business elite, it's a steal.

Virgin is partnering with former Amazon executive Blake Scholl, who is putting together a prototype of the new jet in a Colorado aircraft hangar. Virgin said it hopes to help with the manufacturing and testing process. While several other companies, including Boeing and Lockheed Martin, are developing new supersonic jets Scholl said his plan is likely to beat them to market as it does not require any new technology that would need approval by regulators.

So how does Boom plan to do it? And how will it avoid the pitfalls encountered by its glamorous, doomed predecessor Concorde?

Modern aerodynamics, carbon fibre composites, the latest engine technology and a smarter business strategy, it says. To reduce weight, the plane will be made of a carbon-fibre composite instead of aluminum. According to the simulations, Boom's design is quieter and 30 percent more efficient than Concorde. Seats will be similar to standard domestic first-class to reduce weight, and there will be just 40 of those seats too, making it a lot easier to fill than the 100-seater Concorde -- a strategy, says Boom, that cost Concorde dear. They'll be split into two single-seat rows, so everyone has an aisle seat and a window seat.

"Boom was founded on the philosophy that we need to overcome the challenges to supersonic passenger flight, not surrender to them"

To cut flight time, Boom's plane will cruise at 60,000 feet, where passengers will be able to see the curvature of the earth, while going 2.6 times faster than other passenger planes. Scholl said about 500 routes fit the craft's market, including a five-hour trip from San Francisco to Tokyo and a six-hour flight from Los Angeles to Sydney.

"Boom was founded on the philosophy that we need to overcome the challenges to supersonic passenger flight, not surrender to them" the firm says. *"Today, international travel means jet-lag and days of lost productivity and family time. But imagine leaving New York in the morning, making afternoon meetings in London, and being home to tuck your kids into bed. Unlike Concorde, flying Boom is affordable - the same price as business class."*

"We are offering a service that's way faster, but for the cost of business," Scholl said. *"There is a huge market out there, more than 20 million a year fly business class internationally. We can take them to Mach 2.2 and save them half their journey time."*

Scholl reckons there is so much demand for faster international travel that affordable supersonic flights could become a $100 billion market. He said his plane could work on 500 different routes, but will concentrate initially on London to New York, San Francisco to Tokyo, and Los Angeles to Sydney. The US Federal Aviation Administration (FAA), and its equivalents in most countries, bans supersonic air travel overland.

Scholl has recruited ex-employees of NASA, Boeing and Lockheed, while US astronaut Mark Kelly is an adviser. They are planning to fly the prototype next year, with the first test flights occurring at Centennial Airport in Denver, with supersonic testing near Edwards Air Force Base in California. Scholl concedes that he still needs much more funding to get even the prototype into the air. So far Boom has attracted just $2 million of investment from mostly Silicon Valley billionaires, but he said he has more investors lined up when he needs to tap fresh funds.

"I started this because I was sad that I never got to fly on Concorde. I waited but no one was doing it, so I decided to," Scholl said. *"Ultimately I want people to be able to get anywhere in the world in five hours for $100. To get there you have to improve fuel efficiency, but step-by-step supersonic air travel will become available for everyone.*

"This is supersonic passenger air travel, no bullshit, and it's actually affordable." ■

World Commerce Review is pleased to announce that the Isle of Man Aircraft Registry has been awarded the Best Global Aviation Registry 2017.

The selection panel took into account service innovation, on-going customer support and best practice criteria.

In addition, forward planning and CSR were seen as key areas for the award committee.

The World Commerce Review awards are recognised as the principal indications of professional conduct and excellence.

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- Worldwide aircraft registration services
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KHMA is a 'one stop shop' for all aircraft ownership, management and administration services and we are always delighted to be of assistance. ■

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Deutsche Bank's struggle to raise capital: the bellwether for a new normal

Iakov Frizis is an Economic Researcher and Paul Lirette is Senior Economist at CASE – Center for Social and Economic Research

While European private banks have attempted to build their capital buffers in a bid to restore confidence across the financial system, a weak financial market environment has created challenges to these goals. A perfect example of this is illustrated by recent volatile investor reaction to the news that Deutsche Bank (DB) could be facing substantial fines from the US Department of Justice, a move which has sent volatility rippling through the market. In order to prevent a repeat of Deutsche Bank's recent bout of turmoil, European private banks will need to adjust to the 'new normal' of weak profitability and undergo a restructuring of their business model. Such a dramatic step may be the only way to ensure greater stability and, perhaps more importantly, to regain the confidence of shell-shocked investors.

A financial market environment that is not conducive to raising capital

The 2008 global financial crisis and the ensuing and ongoing eurozone sovereign debt crisis placed an enormous amount of pressure on the European financial sector, and several members required third-party assistance to bail-out over-indebted banks. Fast forward to 2016, and the European Union is still plagued by the woes of its banking sector, where banks find themselves positioned against several factors that continue to stifle profitability.

A key factor in this context includes the unconventional monetary policies introduced by the European Central Bank (ECB) to address the legacies from the recent crises. For example, negative interest rates were introduced by the ECB

for the first time in June 2014 in an attempt to discourage savings and promote investment (the current rate on deposit facilities stands at -0.4%). However, negative deposit rates have forced private banks to either operate under tighter margins or to pass these extra costs on to consumers, hoping for the best.

The adverse impact of negative interest rates is further enhanced by the asset purchasing programme (APP, more commonly known as quantitative easing, or QE). Even though the impact of QE on bank profitability remains largely under-researched, recent studies underscore the policy's association with substantial adverse effects for banks, with the largest being a reduction of bank revenue from loans/securities due to lower margins and flatter yield curves.[1, 2]

Capital in the European Union and stress test outcomes

How has this unfavourable environment impacted the banking sector? This July, the European Banking Authority (EBA) released its European Union banking stress test results, giving a clue to just how the industry is faring. The test, which covered roughly 70% of all EU banking assets, is a theoretical economic and financial shock simulation meant to demonstrate the resilience of the EU banking sector. Overall, this exercise is designed to inform supervisors as they assess banking sector health, promote the importance of adequate capital levels and urge banks to repair balance sheets.

A key headline message flowing from the EBA's stress test report is that the EU banking sector, as a whole, has made significant progress in shoring up its capital base, characterized by a weighted average CET1 ratio of 13.2% for the end of 2015, 200 bps and 400 bps higher than the 2014 and 2011 averages, respectively. Overall, the report indicates that CET1 capital (Tier 1 capital) in the sample of banks analysed has increased by roughly US$190 billion since December 2013.

"... better and more transparent data will play a key role... in allowing supervisors to learn the early warning signs of financial market pinch points"

However, scratching below the surface of the stress test results reveals weakness in important financial institutions, particularly for Deutsche Bank (Germany's largest bank). The underlying shock introduced for the test, an adverse economic growth scenario that carries an impact of 380 bps decrease to the weighted average CET1 ratio, resulted in Deutsche Bank's (DB's) common equity Tier 1 ratio to drop to 7.8% by 2018, down from 13.19% in 2015. As displayed in Figure 1, this leaves DB relatively more thinly capitalized than its peers in the event of financial market turmoil. This is particularly concerning given that the IMF recently identified DB as a major source of outward spill-over to publicly listed banks in Germany and one of the most important net contributors to systemic risks in the global banking system.[3]

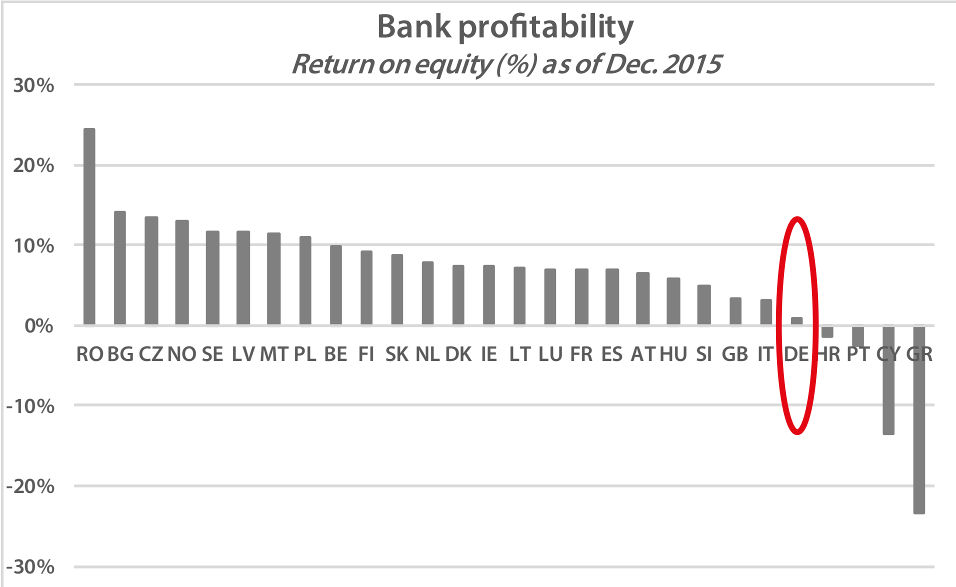
In large part, this result can be attributed to Germany's highly competitive banking sector. According to the October 2015 *Report on financial structures* released by the ECB, the five largest banks in Germany account for a mere 32% of total assets held. This makes Germany the most fragmented, and thus one of the more competitive, banking structures in the eurozone, which implies that profitability for bigger lenders is spread out across the large number of lenders and eroded. As a result, return on equity (ROE) in Germany is among the lowest in the eurozone (see Figure 2).

Deutsche Bank falls under the scrutiny of the US Department of Justice

All of these issues came to a head this September, as Deutsche Bank's capacity to withstand negative external shocks was put to the test when it confirmed a news leak reporting that the US Department of Justice (DOJ) plans to impose a US$14 billion fine on the bank, which intends to settle a probe into illicit mortgage lending activity during the lead-up to the global financial crisis. Allegations, dating back as far as 2005, are linked to the bank's involvement in the formation and supply of residential mortgage-backed securities (RMBs), a piece of traded security notorious for its involvement in converting risky homeowner loans into plain vanilla bonds.

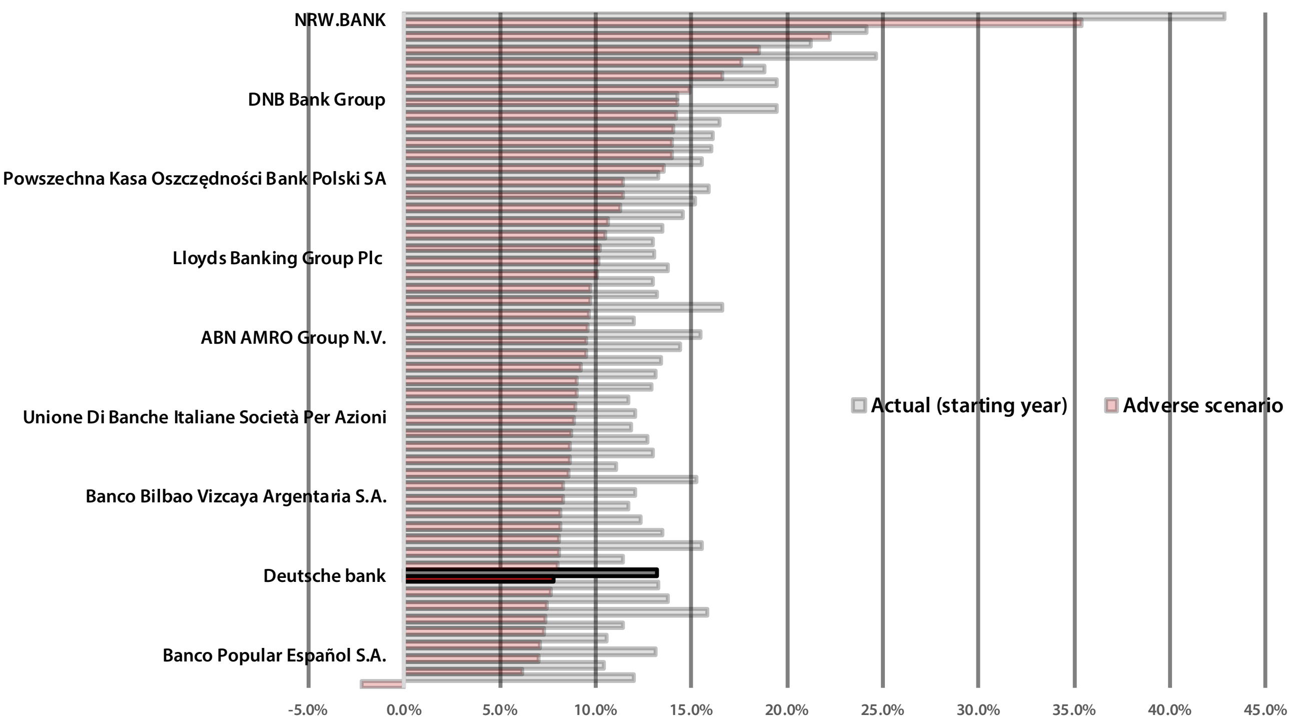
While this is not the first time DB has faced fines of this denomination, this time the estimated amount of the fine appears to exceed the bank's litigation reserves, which, as of June 2016, were at US$6.2 billion. Signs of immediate investors' distress linked to the prospect of a US$14 billion fine from the US DOJ were evident in the rapid drop of 21.8% in DB share prices between September 9th and 27th. While DB share prices have rebounded slightly over the past month, the overall trend for the year is a downward decline, currently standing roughly 31.7% lower than in January 2016 (Figure 3).

Figure 1. Costs of banking sector fragmentation in Germany



Source: European Banking Authority

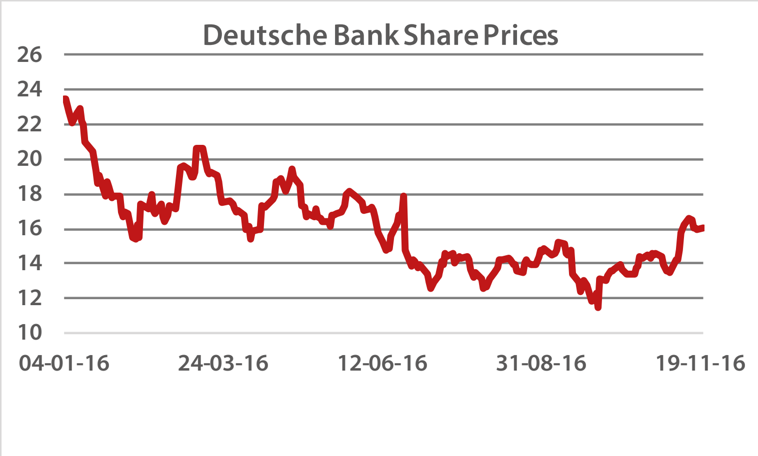
Figure 2. EBA's stress test results - Impact on CET1 capital ratio from 2015-18 in adverse scenario



Source: European Banking Authority

**not all bank names displayed, results in descending order: NRW.BANK, Swedbank – group, Svenska Handelsbanken – group, N.V. Bank Nederlandse Gemeenten, Skandinaviska Enskilda Banken – group, OP Osuuskunta, DNB Bank Group, Nykredit Realkredit, Nordea Bank – group, Danske Bank, Jyske Bank, Groupe Crédit Mutuel, Powszechna Kasa Oszczędności Bank Polski SA, Belfius Banque SA, KBC Group NV, BFA Tenedora de Acciones S.A.U., Groupe Crédit Agricole, Intesa Sanpaolo S.p.A., Lloyds Banking Group Plc, Landesbank Hessen-Thüringen Girozentrale, Groupe BPCE, La Banque Postale, Landesbank Baden-Württemberg, Volkswagen Financial Services AG, ABN AMRO Group N.V., DekaBank Deutsche Girozentrale, OTP Bank Nyrt., Banco Popolare - Società Cooperativa, ING Groep N.V., Criteria Caixa, S.A.U., Unione Di Banche Italiane Società Per Azioni, HSBC Holdings, Banco Santander S.A., Norddeutsche Landesbank Girozentrale, BNP Paribas, Bayerische Landesbank, Banco Bilbao Vizcaya Argentaria S.A., Banco de Sabadell S.A., Erste Group Bank AG, Coöperatieve Centrale Raiffeisen-Boerenleenbank B.A., The Royal Bank of Scotland Group Public Limited Company, Société Générale S.A., Deutsche bank, The Governor and Company of the Bank of Ireland, Commerzbank AG, Allied Irish Banks plc, Barclays Plc, UniCredit S.p.A., Banco Popular Español S.A., Raiffeisen-Landesbanken-Holding GmbH, Banca Monte dei Paschi di Siena S.p.A.*

Figure 3. The cost of lost confidence



Source: Yahoo Finance

A similar trend can be observed in DB's €1.75 billion 6% alternative Tier 1 note, the more risky contingent convertible capital bond (also known as CoCos). CoCos are hybrid securities that are designed to absorb losses either by converting into common equity or by suffering a principle write-down when the capital of the issuing bank falls below a certain level. In mid-September, the price of CoCo bonds dropped to 73 euro cents, nearly breaking the historical lows recorded in February when DB was in the midst of market unrest forcing them to put in place a US$5.4 billion bond buy-back scheme. In part, the drop in CoCo prices reflect investors' concerns that DB would not be in a financial position to pay coupons on these instruments if significant risks were to materialize.

Weak client confidence is also evident through developments in its 5-year Credit Default Swaps (CDS), a security that basically functions as insurance against default. Despite low correlation between CoCos and CDS in ordinary times, news of the impending fine resulted in a sharp increase in demand for CDS securities, leading to a spike in CDS spreads to nearly 250 bps, more than doubling the 95 bps CDS spreads reported in January.

More than just legal troubles

Recent weak client confidence in DB stems (primarily) from investors comparing DB's available litigation reserves with the potential size of the US DOJ fine. While DB has publicly announced that it will challenge the fine, it is unclear what the final payment will be. But factors that will certainly come into consideration are the practical and political considerations for a penalty large enough to destabilize the systemically important DB and provoke a new financial crisis.

Looking at DB's balance sheet in the absence of the DOJ fine, however, there are less concerns for liquidity shortage over the medium term, a sentiment also quoted by Standard & Poor's and Moody's back in February.[4] In non-extraordinary times, the bank has 124% liquidity coverage ratio, out of a minimum 100%, while 72% of its balance sheet consists of retail depositors who tend to be less risk averse than hedge funds. This translates to roughly US$235 billion of cash and liquid securities.

Meanwhile, concerns are principally associated with two points: first, what the FT has branded as DB's US$39 billion credibility gap, ie. the difference between the lender's tangible assets and its US$16.9 billion market capitalisation; second, the estimated worth of DB's balance sheet, which is put to question by the structure of its Tier 1 assets, 72% of which is comprised by Level 3 assets, considered to be the most illiquid and ambiguously valued of possible Tier 1 assets.[5]

Nonetheless, in response to the recent dwindling of consumer sentiment, DB has started undergoing painful but necessary reforms to ensure greater resilience moving forward. More specifically, in November 2016, the bank sold its stake of Huaxia, a Chinese lender, for US$3.37 billion in addition to efforts to restructure costs by implementing a hiring freeze in October, scrapping bonus awards for top management, freezing dividend payments and downsizing the bank by an approximate 9,000 employees. Also, the bank announced that, if needed, it could raise an approximate of US$15 billion in capital through disposing of its retail subsidiary Postbank and its asset management division.

Dealing with a new normal

Since the 2008 global financial crisis and the 2009 eurozone sovereign debt crisis, it has been a difficult time for the European banking sector as a whole. Lending institutions have been faced with an adverse financial market environment, muted economic growth and pressures to undergo painful business model restructuring. The difficulties faced by DB to remain profitable in this type of environment serves as a stark reminder of unfinished reforms to address crises legacies and how quickly investors react to bad news. This reminder not only holds true for DB, but for most private banks in a number of advanced economies.

Until all financial market players become more comfortable in this new normal, where capital requirements are fulfilled and reforms are fully realized to address the legacies from the recent crises, it is clear that investors will continue to be more cautious. As such, moving forward, better and more transparent data will play a key role in communicating with the public and in allowing supervisors to learn the early warning signs of financial market pinch points. This includes continued efforts to continue improving stress testing methodologies and conducting macroprudential stress tests regularly to better monitor vulnerability for prompt action if risks build up. ■

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Climate change and fossil fuels: the growing urgency to divest

Jeff Rubin is Senior Fellow at the Centre For International Governance Innovation and former Chief Economist and Chief Strategist at CIBC World Markets

After witnessing one of the steepest declines in prices in decades, can fossil fuel industries expect to ride a strong cyclical recovery in demand? If there has been one constant in energy markets over the past four decades it is that low prices, particularly in the case of the world's single most important fossil fuel, oil, can be relied upon to stimulate economic growth and in turn stoke global demand for the fuel.

If so, the over halving of oil, coal, and LNG prices over the past two years has set the stage for a powerful recovery in global demand and ultimately in the price for these fuels. But can investors still rely on this time-tested principle as the world commits to ever nearer and more stringent targets to reduce global emissions and mitigate the worst consequences of accelerating climate change?

A growing number of institutional investors around the world are not only questioning the cyclical upside for fossil fuels but more fundamentally their longer-term value and viability in a global economy that must rapidly and dramatically decarbonize. In 2014, institutional funds holding a combined $24 trillion under management signed a Global Investor Statement, recognizing they have a fiduciary responsibility to their investors to manage climate change risks in their portfolios.

Some like California's Public Employee Retirement System (CalPERS), the largest public pension fund in North America, and the $850 billion Norwegian sovereign wealth fund (Government Pension Fund-Global) have already begun to immunize themselves from those risks. They have chosen to divest from fossil fuel industries such as coal and oil sands that are most exposed to global efforts to mitigate climate change. And they are not alone.

Mounting concern over global climate change has quickly catapulted the movement to jettison fossil fuel securities from institutional portfolios into the fastest growing divestment campaign in history. Beginning with endowment funds at institutions like Stanford University and the University of California, the divestment movement from fossil fuels has spread across the global financial community. More than 500 institutions including over 170 pension plans, sovereign wealth funds, university endowment funds and private fund mangers have already divested $5.2 billion dollars from fossil fuel industries. Ironically even the $850 million Rockefeller Fund, a historic oil money fund established by the Rockefeller family-owners of Standard Oil, the predecessor of Exxon, has announced its intention to rid their portfolio of fossil fuels.

In the process the divestment movement has quickly shifted its focus from social activism to portfolio management. Originally, the divestment campaign was motivated by moral concerns much like predecessor movements that had targeted tobacco companies and the former apartheid regime in South Africa. In this case, divestment was motivated by the concern that emission-driven climate change would have potentially

catastrophic consequences from the increased frequency of extreme weather, threats to world food production, and widespread island and coastal flooding as sea levels rise.

But with galvanizing global action, both at the individual country level as well as through international agreements, committed to aggressive emission cuts, the focus of divestment campaigns has shifted from moral concerns to economic ones. As toughening emission regulations around the world begin to take their toll on global demand for fossil fuels, there is a growing recognition among institutional investors that mitigating climate change will severely limit the future use of fossil fuels, rendering much of current production levels, and the bulk of proven reserves, economically unviable.

While the notion that climate change will ultimately compel the world economy to wean itself off fossil fuels is not new, the timeframe in which it must do so has suddenly become far more imminent than once believed. The urgency for action is underscored by the alarming rise in atmospheric carbon which is already above 400 parts per million (ppm) and well on track to breaching the 450 ppm threshold that the world's scientific consensus has steadfastly warned we dare not exceed.

The United Nation's Intergovernmental Panel on Climate Change (IPCC) estimates that at the current rate of annual emissions (around 39 gigatonnes), the global economy has less than three decades left to burn hydrocarbons-a prospect that leaves over two-thirds of the world's proven reserves of coal, oil, and natural gas effectively unburnable.

"Global efforts to mitigate climate change must soon take a heavy toll on future fossil fuel demand"

Of course, the world economy's fossil fuel burning days can be extended beyond that timeframe but only through reducing the rate of annual emissions now and hence stretching out the remaining carbon budget (roughly between 500-1,000 gigatonnes depending on the climate change target chosen and the degree of confidence in achieving it) to mid-century or slightly beyond. Even so, to stabilize atmospheric carbon at 450 ppm, will require that annual global emissions by mid-century are less than half of what they are today.

With fossil fuel combustion accounting for more than 80 per cent of global carbon emissions, the onus for meeting those targets falls squarely on the energy sector. According to the International Energy Agency (IEA) as depicted in its Climate Change Scenario, meeting the 450 ppm target, and hence

limiting the average increase in global temperatures to 2 degrees Celsius, requires both global oil and coal consumption to peak by as early as by the end of this decade and steadily decline thereafter. Global consumption of thermal coal, the single largest source of global carbon pollution, will need to be cut in half by 2040 with coal-fired power generation falling from more than 40 per cent of global electricity production to less than 10 per cent.

The outlook for oil demand isn't much brighter. To meet required global emission targets needed to stabilize atmospheric carbon at 450 ppm, world oil consumption will also need to peak by the end of this decade and fall to 80 million barrels per day (bpd) by 2030 and to 74 million bpd by 2040. That required reduction in future global oil demand would shut in roughly a quarter of today's nearly 97 million bpd of production.

Even holding atmospheric carbon to the 450 ppm threshold paints a bleak outlook for fossil fuel industries. That threshold is in turn benchmarked to limiting the rise in average global temperature to a two-degree Celsius increase. Once considered a prudent objective for climate change mitigation, today the two-degree target is seen as an outlier of what is now considered to be tolerable global climate change. Over 170 countries recently committed to a more stringent goal of limiting the average increase in global temperature to between 1.5 degrees – and less than 2 degree Celsius at the Conference of the Parties (COP 21) to the United Nations Framework Convention on Climate Change in Paris last year.

The new temperature target adopted at Paris requires larger emission reduction cuts and consequently even deeper reductions in global fuel consumption than modeled in the IEA's Climate Change Scenario. Coming into force by 2020, the commitments made at Paris mandates nothing less than huge and irreversible cuts in carbon emissions that can only occur with significant reductions in the use of fossil fuels. Some estimates suggest that world oil consumption will have to fall by over half from current levels by mid century if we are to limit the increase in global temperature to only 1.5 degrees Celsius.

As measures to achieve emission targets take hold around the world, they threaten to stymie the business as usual recovery in fossil fuel demand without which much of today's fossil fuel industry is already no longer viable.

According to Moody's, half of the world's coal reserves had already become uneconomic to exploit, as both thermal and metallurgical prices recently fell close to decade lows. As tightening emission regulations are enforced, particularly in China, which accounts for half of world coal consumption, once booming growth in world coal demand has ground to an abrupt halt.

Global coal consumption fell by an estimated 2.5 per cent in 2015, almost double the decline seen during the last recession, after registering no growth the previous year. With demand stagnating, coal prices have plunged, shaving off billions of dollars of market capitalization from coal stocks and triggering bankruptcies and mine closures around the world.

Peabody Energy, once the largest publicly listed coal stock in the world, lost more than 90 per cent of its share value over the last five years before declaring bankruptcy in April 2016. Similar fates have befallen other coal giants like Alpha Resources and Arch Coal, which joined over a dozen US coal firms which went bankrupt over the past couple of years.

However stressed the coal industry may be today, it faces the prospect that in an emissions constrained world, it will lose nearly half of its market over the next two and half decades. The IEA has warned that only low cost, small –scale, new coal projects would be viable in that world.

The outlook is not fundamentally different for oil producers. Just as low coal prices have stranded coal reserves around the world, low oil prices, have suddenly rendered huge reserves of high cost oil like the billions of barrels of bitumen found in Canada's oil sands uneconomic to produce. Already singled out in a number of divestment campaigns, the oil sands are not only one the most emission intensive sources of oil supply but more critically, they are one of the most expensive supply sources anywhere in the world and hence the most vulnerable to any emissions-driven reduction in world oil demand.

Prior to the collapse in oil prices for their once triple digit perch, oil sands production was scheduled to more than double to over 5 million bpd over the next decade and half - an increase that would have catapulted Canada into the front ranks of oil producing nations. But whereas the rapid growth of high cost unconventional supply was once seen as crucial to meeting ever-growing global petroleum demand, oil sands production has become largely redundant in an oil market flooded by US shale production and record OPEC and Russian output.

With production costs of new oil sands projects almost double the current price of bitumen, over $50 billion of planned investment in expanding oil sands production have been cancelled. But even today's roughly two and half million bpd production from the oil sands looks unsustainable without a huge recovery in oil prices.

Next to coal firms, the high cost oil sands sector has been the hardest hit by the collapse in fuel prices. While the oil sands industry continues to pin its hopes on new pipelines to tidewater, glutted overseas markets in Europe and Asia typically pay less for bitumen and other forms of heavy oil than oil sand produces currently receive from North American refineries.

A return to anywhere close to the triple digit oil prices that spurred their development of the oil sands, as well as shale and other high cost supply sources like deepwater and Arctic, seems less and less likely. The closer that international agreements like COP 21 and their aftermath bring the world to reducing combustion of fossil fuels, either through pricing carbon emission or through promoting the rapid use of green energy, the bleaker the outlook for oil prices and high cost supply sources.

Institutional investors who have already divested from coal and oil sands stocks have avoided substantial loses in their portfolio. Both now trade at a fraction of their former values. Other investors, who might consider positioning themselves for a business as usual recovery in fuel demand and prices, have good reason to think twice. Global efforts to mitigate climate change must soon take a heavy toll on future fossil fuel demand. ■

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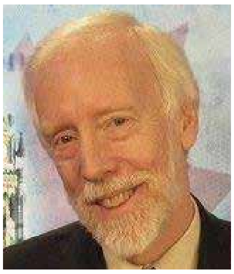
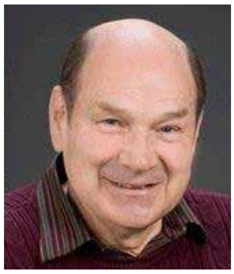


DiCaprio climate change film error-strewn



Tom Harris is executive director of the Ottawa, Canada-based International Climate Science Coalition. Dr Tim Ball is an environmental consultant and former climatology professor at the University of Winnipeg in Manitoba

On October 30, just 9 days before the United States election, Hollywood actor Leonardo DiCaprio's new climate change movie, *Before the Flood*, debuted on the National Geographic Channel. The film was broadcast in 45 languages in 171 countries and, until November 6, was available for free on YouTube (where it had over 9 million views), Twitter, Facebook, Google Play, iTunes, Amazon, and Hulu. Like former Vice-President Al Gore's *An Inconvenient Truth*, DiCaprio's film may very well become standard fare in classrooms across the world.

Both DiCaprio and director Fisher Stevens were supporters of former Secretary of State Hillary Clinton's presidential bid and, according to CNN, made it their goal to release the movie before the election. Like all politically-motivated communications, students should take the film with a grain of salt.

Not only is the documentary's bias obvious, but it is as error-riddled as the short film *Carbon* that DiCaprio released just before the 2014 UN Climate Summit in New York. Like *Carbon*, the actor's new film is based on the highly debatable hypothesis that carbon dioxide (CO_2) emissions from human activities are causing catastrophic climate change. Coal, oil, and natural gas, the world's least expensive and most abundant energy sources, must therefore be turned off as soon as possible, DiCaprio says. He seems unware that the Nongovernmental International Panel on Climate Change (NIPCC) lists thousands of scientific papers that either debunk or cast serious doubt on the climate scare.

At the start of the film Leo asks United Nations Secretary-General Ban Ki-moon,

> *"What specific message do you think is the most important?"*

Ban replies:

> *"Climate change is coming much, much faster. We have seen such an extraordinarily extreme weather patterns."*

DiCaprio nods in agreement.

But they are completely wrong. Current rates of change are well within the bounds of natural variability. The United Nations Intergovernmental Panel on Climate Change (IPCC) estimates that the statistical average of surface temperatures increased only 0.85 degrees Celsius between 1880 to 2012. Such modest warming is to be expected given that the Earth has been recovering from the Little Ice Age since the late 19th century. Humankind's contribution to this relatively small temperature rise is obviously not a problem.

According to NASA satellites, global warming essentially ceased in the late 1990s. Yet CO_2 levels have supposedly risen about 10% since 1997, a figure that represents an astonishing 30% of all human-related emissions since the start of the industrial revolution. This contradicts all CO_2-based climate models upon which global warming concerns are founded.

Leo tells viewers that, when he was in his early twenties, he met with then Vice President Al Gore in the White House. Leo learned from Gore:

> *"Almost everything we do releases carbon dioxide. And that leads to climate change. The polar ice caps will melt. The seas will start to rise. There will be more dangerous weather patterns, floods, droughts, wildfires."*

DiCaprio concluded that Gore's fears:

> *"sounded like some nightmarish science fiction film. Except everything he said is real and its happening right now."*

But Leo is wrong again. This is one of the few areas of agreement between the IPCC and the NIPCC.

In 2012 the IPCC asserted that a relationship between global warming and wildfires, rainfall, storms, hurricanes, and other extreme weather events has not been demonstrated. The 2013 NIPCC report concluded,

> *"In no case has a convincing relationship been established between warming over the past 100 years and increases in any of these extreme events."*

The National Oceanic and Atmospheric Administration website reveals that the incidence of extreme weather state records has been decreasing in recent years. No records were set in 2016 or 2015. In 2014, there was one. 2013, one. 2012, one. One must go back to the 1930s to find a time when state-wide extreme weather records were being set often.

As human habitation increases in areas that were previously sparsely populated, there will naturally be more reports of extreme weather and more related insurance claims. But there is no convincing evidence of a rise in the incidence or severity of extreme weather.

And it is the same with virtually all of DiCaprio's other climate concerns. The current rate of sea level rise is less than one tenth that of 8,000 years ago. There are regions in the ocean where pH (a measure of acidity) varies more in a day than the most extreme forecasts for the 21st century, yet ocean life adapts. Arctic summer sea ice area increased almost a million square kilometers between 2012 and this year.

"At a cost of between $1 trillion and $2 trillion annually, the Paris climate agreement…is likely to be history's most expensive treaty"

Showing images of Republicans, Florida Governor Rick Scott and Senator Marco Rubio, as well as Alaska Senator Lisa Murkowski, DiCaprio complains:

> *"half the people in office still don't believe in climate change."*

Republicans obviously know that climate changes. Otherwise, the Laurentide ice sheet would still cover a large portion of the northern United States. The glaciers that created Long Island and carved out the landscape of New York City, for example, disappeared thousands of years ago as the climate warmed due to natural causes.

It is true that an increasing number of politicians do not believe that our greenhouse gas emissions are causing a global warming crisis. As demonstrated by the NIPCC reports, they have strong scientific justification for that stance.

DiCaprio asks Miami mayor Philip Levine:

> *"why do you think there are still such opposition about the science?"*

Levine answers,

> *"I think it's politics. I think it still has to do with lobbying and industry."*

But the most powerful lobbying and vested commercial interests lie on the side of climate alarmism. The latest Foundation Center report (2010) shows that the California-based William and Flora Hewlett Foundation alone donated more than one half billion dollars to climate change programs in 2008, over one hundred times as much as the average annual donation that the conservative Koch brothers have supposedly given to skeptics.

The money being spent on climate change is incredible. According to the Congressional Research Service, between 2001 and 2014 the US Government spent $131 billion on human-caused climate change projects. They also allowed tax breaks for anti-CO_2 energy initiatives totalling $176 billion.

The San Francisco-based Climate Policy Initiative revealed that more than $1 billion is now spent every day across the world on climate finance. Sadly, only 6% of it is devoted to helping vulnerable societies adapt to climate change. The rest is spent trying to stop climatic events that might someday happen.

These extraordinary costs are set to increase still further. Bjorn Lomborg, director of the Copenhagen Consensus Center, wrote in the *Wall Street Journal* on October 13:

"At a cost of between $1 trillion and $2 trillion annually, the Paris climate agreement…is likely to be history's most expensive treaty."

DiCaprio admits in the film:

"The more I've learned about this issue… the more I realize how much I don't know."

That is an understatement. Had the UN 'Messenger of Peace' spoken with any of the thousands of experts who oppose the climate scare, he would have realized that the real tragedy is the vast sums wasted across the world on this, the most expensive science deception in history.

Oregon-based physicist Gordon Fulks explained that the climate campaign has

"become a sort of societal pathogen that virulently spreads misinformation in tiny packages like a virus. CO_2 is said to be responsible for global warming that is not occurring, for accelerated sea level rise that is not occurring, for net glacial and sea ice melt that is not occurring, for ocean acidification that is not occurring, and for increasing extreme weather that is not occurring."

DiCaprio's new film is just another vector for spreading the virus.

DiCaprio is correct in one respect. The late Bob Carter, former professor and head of the School of Earth Sciences at James Cook University in Australia, explained,

"Climate change is a moral issue, and there is nothing quite so immoral as the sight of well-fed, well-housed Westerners assuaging their consciences by wasting huge amounts of money on futile anti-global warming policies, using money that could instead be spent on improving the living standards in developing countries."

Carter concluded,

"Denying poor nations, many of whose citizens lack adequate sanitation, schooling, clean water, and health services, the finance to build inexpensive hydrocarbon-fired power stations, and who in consequence suffer millions of premature deaths every year, has been aptly described as technological genocide. And that is where the moral outrage should lie."

DiCaprio should make a film about it. ■

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