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Maria Demertzis, André Sapir and Guntram Wolff present a strategic agenda for the new EU leadership

Abhijit Mukhopadhyay considers where India sits in an era of bilateral and plurilateral FTAs

Sofia Baliño examines a new investment facilitation framework in a tenuous WTO landscape

THE GLOBAL TRADE PLATFORM

No time to wait

Today's economic risks and challenges are substantial — a trading system in crisis, slowing global growth, rising financial risks, growing geopolitical tensions, to name a few — they are not at the levels of ten years ago. At least not yet. Since 2008 the United States has switched from promoting multilateralism, cooperation, global rules and global institutions.

Many western countries are political shadows of their former selves. The domestic political strength of the leaders of the United Kingdom, Germany, France, Italy, Canada, and many others has been compromised, with a backlash against multilateralism and global cooperation.

The global financial crisis demonstrated to the world that many institutions were not fit for purpose, that they may be unable to adapt to the rapid changes in the global economy.

Globalisation has led to greater competition. The explosion of advanced technologies now means that knowledge-pools and resources have connected all over the planet, levelling the playing field as never before. There is specifically a fourth revolution of humanity occurring where the people who historically could not be reached are now being reached by technology.

This technological disruption is changing how globalisation affects different regions of the globe. It is now time for the institutions of the 20th century to be reformed to meet the challenges of the 21st century. It will require a change in the mindsets of the western elite, who are trying to slow the rate of change by raising non-tariff barriers. They need to look to the future rather than trying to preserve the status quo.

There is a chasm between the west (and Europe in particular) and the leapfrog countries from China to India to Kenya to Colombia. The reason the latter countries are leapfrogging Europe and America is that they don't have economies ingrained in the last century. Meantime, most of the European and American business and regulatory infrastructure was implemented in the 20th century.

Bottom-line: where there are vested interests to keep legacy in place, a change to the modern world is unlikely to happen in the near-term. Countries do best when the world comes together to agree collectively on the rules for trade, investment, finance, people-to-people links and dispute resolution and therefore have a paramount self-interest in a strong, effective multilateral organisations.

It is time for the economies of China, India, of Africa, of Australasia and a post-Brexit United Kingdom to create and enable a multilateral infrastructure that looks to the future as one of opportunity and human development. Delivering reform will help address the pressing challenges of today. This is not a time to wait. ■

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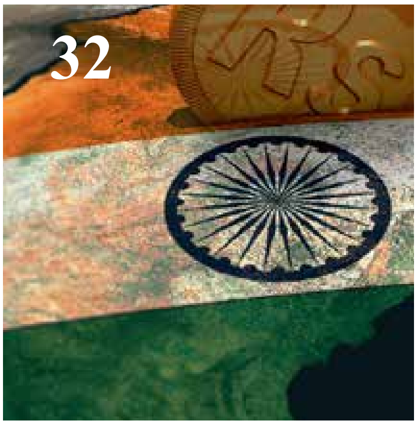

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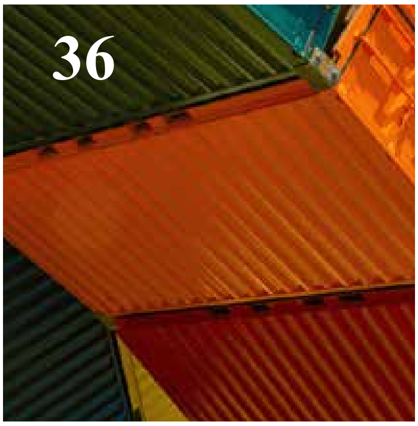

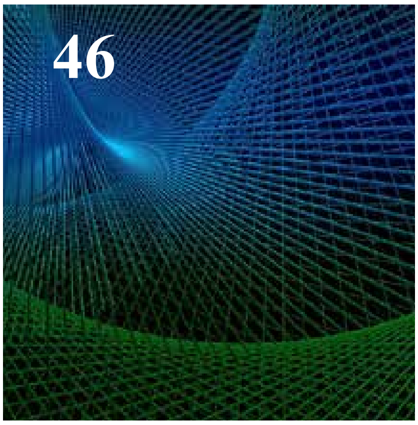

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A strategic agenda for the new EU leadership

Maria Demertzis, André Sapir and Guntram Wolff present a memo to the presidents of the European Commission, Council and Parliament, focussing on the most important economic questions at EU level

You inherit a relatively healthy European economy, but you face three formidable challenges in the next five years. First, you must define Europe's place in an increasingly bipolar world driven by a geostrategic rivalry between the United States and China.

You should avoid protectionism and instead strengthen Europe's technological, financial and security capacities. You should continue to support multilateral institutions and stand ready to retaliate against trade aggression. Second, global warming is a reality and temperatures appear to be rising faster than forecast.

You need to impose higher prices on greenhouse gas emissions, guide a deep transformation of our economies, minimise the resulting social fallout, ensure border carbon adjustment and globalise the EU's decarbonisation. Third, you need to manage the economy and EU cohesion.

The main worry is a deep recession or even a new crisis. Guide European policymakers on the use of proactive fiscal policy, reform the governance of the euro area and address tax fraud and evasion.

State of affairs

First, the good news: you face a much more benign macroeconomic situation than when your predecessors assumed office five years ago. Then, the European Union was just emerging from the worst economic and financial crisis in its history. Economic growth was still very weak, unemployment was close to 12 percent in the euro area (and just above 10 percent in the EU), and the public debt-to-GDP ratio was above 90 percent.

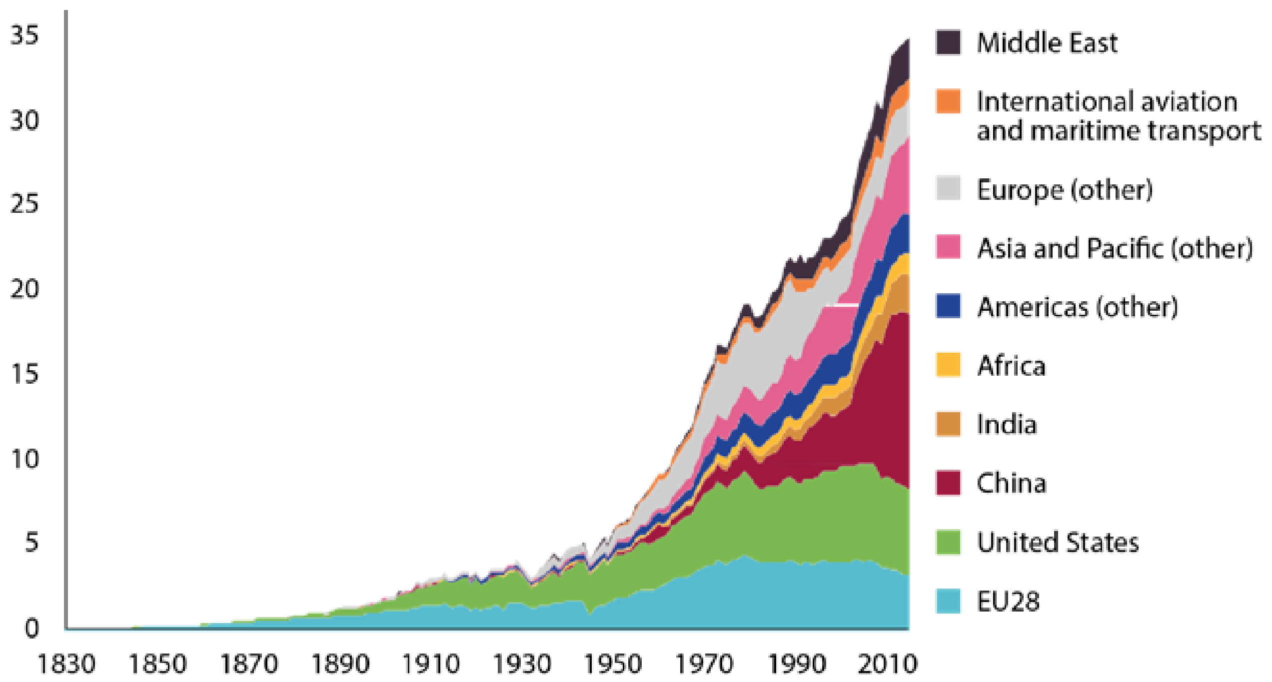
Now, after five years of economic growth at an average of roughly 2 percent, unemployment is down to about 8 percent in the euro area (and less than 7 percent in the EU), and the debt-to-GDP ratio is approaching 80 percent.

However, the global landscape has shifted dramatically in the last few years. A G2-like world, characterised by a broad geopolitical confrontation between the United States and China, has become a reality. Five years ago, the extent to which Sino-US relations have deteriorated was not yet obvious, and it was not clear that the EU would have to define clearly its own way forward.

China's fast rise is a tremendous achievement. It has lifted millions out of poverty and China is increasingly becoming an engine of global innovation. But the Chinese economic and political model also poses a challenge to Europe and the West in general.

In some quarters, China's illiberal political model is even viewed as an alternative to our sometimes slow-acting liberal democracies. China is an important market and economic partner but also poses an economic challenge. Meanwhile, the US has become a less reliable partner than it was five years ago and some even doubt how strongly it will defend liberal democracy.

Figure 1. Annual CO_2 emissions by world region



Source: Carbon Dioxide Information Analysis Center. Note: Annual CO_2 emissions measured in billion tonnes per year. Emissions data have been converted from units of carbon to CO_2 using a conversion factor of 3.67. Regions denoted 'other' are given as regional totals minus emissions from the EU28, USA, China and India.

The last five years have also seen continued increases in global greenhouse gas emissions (Figure 1), despite the 2015 Paris Agreement. The frequency of extreme weather events has increased and the world has become warmer (IPCC, 2018).

Increasingly, scientists point to positive feedback-loops where the increased temperature leads to further increases in global temperature[1]. In that light, the Paris goals might even be insufficient[2]. So far, the EU has not managed to reduce its greenhouse gas emissions convincingly despite the Paris Agreement being politically widely accepted.

It has not strengthened its policy framework necessary for a profound and deep transformation of our economy, which is simply not happening fast enough. Biodiversity was not a priority for your predecessors and has been allowed to deteriorate in Europe[3].

Though EU employment has increased substantially and income inequality remains less pronounced than anywhere else in the world, inequality and exclusion remain important concerns. Youth unemployment is still worryingly high in some EU countries, resulting in the social disenchantment of an entire generation.

More broadly, one worrying tendency in many EU countries has been cuts to the top tax rates levied on companies, wealth, inheritance and high incomes[4]. Low progressivity and a high tax burden on the working middle class to fund Europe's social market economy nurture a sense of injustice in society. A key challenge is to reconcile equity and efficiency[5].

Institutionally, perhaps the most significant change of the last five years has been the transformation of the Commission, traditionally viewed as the guardian of the treaties, into an explicitly political Commission, led by a strong president who claimed an electoral mandate to lead. This controversial change of orientation has allowed the Commission president to a greater extent than before to exercise leadership and impose priorities on the entire Commission.

The centralisation of communication and political decision making has been seen by Commission staff as a major change compared to the previous Commission, allowing the Commission to set the EU's agenda (Kassim and Connolly, 2018). This institutional change is an important modification of the way the EU works.

The EU and national institutions are confronted with a lack of trust. The situation for the EU has improved in the last five years, with trust increasing and support for the EU higher among the young than the population overall, but the number of citizens distrusting the EU still exceeds those who trust the EU. This is particularly visible in some southern European countries[6]. Certainly one of the main reasons for this is the lack of convergence and the severe recessions that parts of the south of Europe experienced.

Such lack of convergence and trust risks undermining the sustainability of the euro area and the EU. Furthermore, traditional political parties are losing ground, resulting in a more pluralist political system. Elections also confirm certain established cleavages of voter preferences across countries, which might make compromises more difficult in future.

"Europe's geopolitical weakness is partly the result of its lack of strength in some key technologies; leverage over networks matters"

The significantly higher turnout in the 2019 European elections is a sign of a renewed demand from citizens that Europe should deliver on the big topics of our times. Citizens want the EU to prioritise maintaining peace, creating jobs and tackling climate change[7].

More than three quarters of citizens consider the fight against terrorism, tackling unemployment and protection of the environment as the three key priorities for the EU, but the first two priorities have declined in importance (Eurobarometer, 2018).

Moreover, citizens are broadly divided on whether the EU should wait until all countries are ready before proceeding with new initiatives, or whether some countries should move ahead.

Citizens, however, are convinced that when it comes to the big international questions, such as dealing with China, Russia and the United States under President Trump, the EU should speak with one voice.

Challenges

Three main challenges await you, coinciding with the areas that citizens increasingly believe the EU should deliver on:

(1) the EU's capacity to establish itself as a stronger and more independent global player;

(2) a climate and environmental strategy that delivers;

(3) the EU's capacity to increase cohesion, boost employment and react to a deterioration in the economic situation.

Europe's place in the world

The first, and perhaps defining, challenge of your presidencies will be to ensure that Europe still has a place in a world which is rapidly shaping into a bipolar system dominated by China and the United States.

Citizens clearly want the EU to act on issues of global importance and understand that the member states in which they live, even the biggest, cannot act alone. Reinforcing the EU's capacity to be a global force is therefore an opportunity to demonstrate the EU's significant added value.

By some key economic measures, in particular GDP and trade, the EU is on par with China and the United States, and far bigger than any other player. Its single voice on trade and standards commands respect in global bodies such as the World Trade Organization (WTO), and bilaterally with partners, including China and the US.

If the trade conflicts initiated by President Trump had been conflicts about trade only, the EU would have been relatively well placed to defend its commercial interests. But the reality is that these trade battles are part of a geopolitical rivalry between China and the United States, and when it comes to geopolitics, the EU is ill-equipped.

The EU's weakness stems in part from its lack of a defence capability. Without the US participating in Europe's defence, European countries would be vulnerable to foreign aggression.

Europe's weakness in this area is also the result of its lack of strength in some key technologies, including digital hardware and software systems that are vital for security. A number of globally-important networks (such as financial or data networks) have developed in an asymmetric way, giving the states with physical and legal jurisdiction over them the ability to extract information and leverage power.

These networks tend to have central nodes of influence in the US and increasingly in China – while the EU still has an institutional weakness in terms of exercising power over those networks it can influence (Farrell and Newman, 2019).

The EU has much to lose from the emergence of a bipolar world, and from the rivalry between China and the United States. The threat is to both the EU's economic interests and its political values. The EU is closely intertwined with the United States and China, which are its two main trade and investment partners. A Sino-US trade war is sure, therefore, to have significant negative consequences for the EU economy.

But the bigger consequences are political. The two rival powers will aim to lure the EU into their camps because of the EU's economic assets, and in particular its large market. The EU obviously wants to preserve its values of democracy and the rule of law, social justice and multilateralism, and given its history and values, is clearly politically much closer to the US than to China.

However, the rejection of multilateralism by the Trump administration has made the EU uncomfortable with the US position, and has opened the door to closer political relations with China, which has assumed the mantle of multilateralism.

It would be a nightmare scenario for the EU if it had to choose between liberal democracy and the United States on one hand, and multilateralism and China on the other. In both cases, the EU might have to compromise on social justice, which is practiced neither by China nor by the United States.

To avoid compromising on our political values, you need to succeed in escaping the bipolar scenario. You should be under no illusion. Unfortunately, the bipolar scenario is by far the most likely, but it is also the most dangerous for Europe, and probably for other parts of the world which share our values. You should aim not only to strengthen Europe but also to support all multilateral frameworks that can help offset a bipolar scenario.

Important further elements of Europe's strategy in defining its place in the world are the relationship with our neighbouring continent, Africa, and the EU's strategy on migration. Both topics are clearly important priorities for EU citizens.

Climate and the environment

When it comes to climate change and the environment, your challenge will be to overcome vested interests, and manage the social and economic fallout of a truly transformative agenda. Citizens want you to address this pressing challenge.

At the same time, they aren't likely to accept the consequences of strong climate action easily. The yellow-vests movement in France serves as a powerful reminder that addressing the social consequences of climate policies needs to be an integral part of a successful climate strategy.

Vested interests will want to prevent you from addressing climate change. But you should be clear: climate change is a dramatic reality for humanity. Industrial economies have been leading contributors in the past and have a moral obligation to address their emissions head-on.

Moreover, by doing so, they produce a template that others can follow and that in itself can also be a business opportunity. Failing to address the challenge head-on would be inacceptable to citizens, and could also mean that the EU loses out on key technological developments – such as electro-mobility – that will shape the future.

Meanwhile, a powerful lobby will try to prevent you fundamentally changing the EU's common agricultural policy – which you must do if you want to restore lost biodiversity in Europe (Pe'er *et al*, 2014) and free financial resources for more forward-looking expenses.

Growth and convergence

The EU's long-term prosperity and sustainability depends on innovation, growth and convergence. Those countries with a serious productivity growth challenge typically have comparatively weak institutions and perform less well in education, innovation and research.

But without more growth in those countries, debt dynamics will be unfavourable. Your challenge is to find ways to contribute to convergence and growth, while most of the levers to do so are at member-state level.

The challenge could be compounded by deterioration in the economic situation and even the re-emergence of crisis. A recession would increase unemployment, which even now after many years of recovery, remains a key concern for citizens.

Beyond the macroeconomic ups and downs, you could face a sovereign debt crisis in a euro area country that would require emergency summits and assistance. But you have relatively few instruments under your control to deal decisively with such a situation.

There is no euro area budget to use for countercyclical fiscal policy and the current negotiations are unlikely to lead to a budget of macroeconomic relevance. The main truly European institution that could respond, the European Central Bank, would have to find new tools because of low interest rates and the political limits to further bond purchases. Meanwhile, the main euro area financial-assistance programmes are in the hands of an inter-governmental institution, the European Stability Mechanism, and the member states

You must aim to complete the euro area's governance set-up to make it more robust. This is all the more important as a badly functioning euro area also has long-term social consequences.

Policy recommendations

Europe's place in the world

When it comes to strengthening Europe's position in the world, you will have to design and drive a transformative agenda for Europe. In trade policy, your task is relatively well-defined: you need to vigorously defend the multilateral trading system, including by fostering its reform, while being ready to retaliate against protectionist measures.

But to be able to act and respond on a more equal footing you need to reduce dependence on China and the United States in some key strategic domains while strengthening the EU's own capabilities. This will require tackling three issues.

The EU's capacity to innovate and remain a technological leader: you should strengthen investment in R&D, education and improve conditions for innovation and conditions that encourage key players in networks to locate in the EU.

For example, the platform economy is dominated by the American GAFA (Google, Apple, Facebook and Amazon), and increasingly by the Chinese BATX (Baidu, Alibaba, Tencent and Xiami). Technological capacity influences the structure of global networks, which in turn is important for the projection of power[8].

But if the EU cannot trust the US to not turn its network hegemony against it, it needs to revisit its strategy and aim to attract key network nodes and hubs and to create institutional capacity to deal with those hubs.

The EU does not lack large digital platform companies because of the EU's competition policy. It lacks such companies because of a fragmented market, including a fragmented market for risk capital, and because of lack of public infrastructure, meaning that, all too often, innovative young companies go to the US to grow.

You should continue the work that your predecessors started to deepen and complete the single market, strengthening the digital single market in particular, exploiting data-privacy rights and developing a European approach to the digital age with the citizens at the centre.

"If the trade conflicts initiated by President Trump had been only about trade, the EU would have been well-placed to defend its interests"

The effectiveness of the EU's competition policy is globally recognised. Relaxing current policies to encourage the creation of large European champions might lead to higher domestic prices, greater inequality and rather limited benefits in terms of innovation and growth[9].

By contrast, tough competition typically spurs innovation. While we are not in favour of subsidising specific large firms, there might be a case for supporting them when they compete in third countries with subsidised firms from other jurisdictions. Ideally, however, this issue should be addressed through improvements to, and better implementation of, the WTO rules on subsidisation. There might also be a case for revising the definition of dynamic markets.

The EU should have an industrial policy that goes beyond the single market strategy. A deeper single market is critical for the EU's economic strength. But a clear view of which sectors will drive future innovation is also necessary given the targeted Chinese approach (European Commission, 2019).

The EU needs to develop a methodology to identify key sectors of relevance and go beyond the current ad-hoc approach to supporting specific industries. In the US, three federal institutions (the Defense Advanced Research Projects Agency, National Institutes of Health and National Science Foundation) play crucial roles in pushing forward the frontier of knowledge, and enabling private-sector R&D in key areas.

Similarly, the EU should use the EU budget more than today (roughly €10 billion in 2018) to boost digital hardware and software systems, including artificial intelligence, which are critical for autonomy and even security.

The second area where you need to act to boost the EU's role in the global economy is the euro's role as a global currency. The euro is already a global currency but its role is below potential on account of the incomplete economic architecture of Economic and Monetary Union. To change that, you will need to make concrete progress on EU governance. We will return to this in our third set of recommendations.

Third, you need to increase Europe's capacity to safeguard its own security. This is not a question of a 'European army'. Instead it is about being able to defend EU territory by collaborating in case of aggression and to intervene in cyberwar, intelligence operations and small rescue operations. Investments in the range of €100 billion to €300 billion could be needed if Europe wants to have sufficient defence capabilities without US involvement (ISIS, 2019).

"To be able to act and respond on a more equal footing you need to reduce dependence on China and the US in key strategic domains"

The EU should remain a peace project, capable of defending itself but without any ambition to project force in military adventures in third countries[10].

This gives rise to important organisational questions that you need to answer. How would EU countries support each other in case of military aggression? Should the EU create a 'security council' which includes even some non-EU countries (potentially the UK) and is capable of taking military decisions outside of NATO? How can the various weapon systems of national armies be made compatible?

Can the Permanent Structured Cooperation (PESCO) process be further advanced and procurement be unified? Can EU countries form joint capabilities to counter cyberattacks and what capacity does the EU have to deal with targeted fake-news campaigns that undermine our democracies? You will need to exercise leadership in these domains but not pursue unrealistic and even undesirable goals.

The question of defence is important because, unfortunately, the EU cannot fully chart its own course in trade, technology and investment policies without ensuring its own security. But, as you know, this view is not accepted equally by different EU countries and several countries will not be ready to question reliance on NATO as the main defence cooperation agreement. In our view, you will therefore have to accept a certain degree of multi-speed in this domain[11].

Finally, we consider it important that you strengthen the EU's Africa policy. Africa is connected to Europe in many ways. As our direct neighbour, its economic health and political stability are core EU interests. This topic cuts across trade, investment, development, climate, energy and migration policies.

You will need to further develop your migration strategy, which is still a great concern for many citizens and goes beyond the relationships with African countries. This strategy cannot be narrowly focused only on illegal migration but needs to be comprehensive and cover also legal migration and its implications for the internal functioning of the single market.

Climate and the environment

The EU is already politically committed to reducing greenhouse gas emissions in line with the Paris Agreement. But progress is limited and certain sectors lag behind in their efforts to reduce their impacts on the climate (in particular the transport sector; see Tagliapietra and Zachmann, 2018). Coal phase out is too slow in several countries.

Putting a price on greenhouse gas emissions in all sectors is indispensable to reduce emissions. You will need to ensure that the EU carbon price becomes high enough to lead to more rapid and significant changes in behaviour. Other sectors not currently participating in the EU emissions trading system will also need to be covered, possibly with a tax.

Industrial policy can support decarbonisation and you should mobilise the EU's instruments in that regard. Regulation on sustainable finance is a further lever the EU has to manage climate risks.

Your climate strategy will need to address distributional concerns or risk failing politically (Zachmann *et al*, 2019). To this end, the carbon tax proceeds could be redistributed to reduce the burden on low-income households[12].

Don't underestimate how transformative serious climate action will be for the entire economic system. The rising carbon price and the carbon tax should be accompanied by public funding for innovation to accelerate the emergence of new technologies, which will create new activities and also cut the cost of clean energy.

It is crucial to understand the importance of digitalisation for the green revolution and support it with public policy. Lowering the cost of clean energy is all the more important because key industries depend on access to affordable energy and you need them to support the transformation.

The EU's climate strategy also needs to have a global perspective. Global greenhouse gas emissions continue to rise quite dramatically, in particular driven by emerging economies. We consider three policies as central. First, the EU should continue and redouble its efforts to support emerging economies in basing their economic models on green growth.

Financial and technological support for green infrastructure is good climate policy[13] and it can also create economic opportunities for leading green EU companies. Second, the EU, like other industrialised economies, has managed to reduce emissions in production, but not as much in consumption of greenhouse gases. Some form of carbon border adjustment will be necessary to tackle this[14].

Finally, given that global emissions continue to grow so rap- idly, scientists increasingly talk of the Anthropocene – a geological period in which human activity is the dominant force shaping the Earth's ecosystem. Given that the earth's climate might be increasingly influenced by self-reinforcing feedback loops, we consider it essential to study how to manage the fallout from global warming and how to reduce emissions by other means[15]. You should exercise global leadership on this.

Growth and convergence

You should support the improvement of the quality of institutions, which varies significantly in different EU countries. Governance structures and institutional quality are known to go hand-in-hand with good and sustainable economic

“Rigid application of the fiscal rules might lead to faulty recommendations, but politically partisan interpretations would undermine your institution as a broker of compromises”

outcomes (Acemoglu and Robinson, 2012; Acemoglu *et al*, 2005)[16].

Even though improving institutional quality is, above all, a job for national politics, you could and should support such endeavours more than currently. You should use the EU budget as a tool to support institutional reform programmes and review the EU’s approach to promoting good governance (Mungiu-Pippidi, 2019).

One of the first challenges you will face when taking office is to complete the negotiations on the multiannual financial framework. In our view, you should aim to significantly reduce the share of spending that goes to the common agricultural policy, while boosting spending on innovation and research.

The EU budget should finance projects with true European added value, such as the European space programme and European infrastructure and innovation policy. Structural funds are probably your main instrument to boost growth in the parts of Europe that have a productivity problem, but their effectiveness needs to be increased (Darvas *et al*, 2019).

Meanwhile, the common agricultural policy should be changed so it focuses on increasing the sustainability of our food production[17], increasing biodiversity[18] and ensuring the best results in terms of farmers’ incomes (Ciaian *et al*, 2015). In short, it should be a basic goal to use the budget better and create space for spending on new priorities such as migration policy and border protection.

You should devote significant political capital to combatting tax evasion and fraud and support a fairer distribution of the tax burden. Social and tax policies are national policies, but the single market makes it easier for large companies and rich individuals to reduce their effective taxation.

An increasing tax burden on the working middle class is incompatible with the promises of Europe’s social market economy. The EU growth strategy should also build on useful EU instruments such as the European Social Fund and the European Pillar of Social Rights.

You should also contribute to a better management of macroeconomic policy. In case of an economic downturn, you should support the relevant authorities in responding rapidly. With interest rates at the zero lower-bound, monetary policy will have little to contribute to stem the next downturn.

Your role as Commission President, together with your responsible Commissioners, will be to raise awareness about the importance of national fiscal policies to stabilise the EU economy. You will have to identify risks to the macroeconomy early on and organise a coordinated fiscal response.

On the fiscal rules, we believe that rigid application might lead to faulty recommendations. But at the same time, a politically partisan interpretation of rules would undermine your institution as an independent and neutral broker of compromises.

In our view, you should therefore not only propose changes to the fiscal rules to increase their usefulness for fiscal macro-management. You should also clearly explain what you think should be the right fiscal policy in any given circumstance – thereby increasing political buy-in. A reform of the European Semester with more convincing communication than currently is much needed.

In this respect sovereign spreads, while useful in enforcing fiscal discipline, can also hamper the ability of some countries to use fiscal policy when they need it most and hamper the transmission of monetary policy.

Your role will be to communicate wisely and broker compromises among key players. You should support the European Central Bank’s outright monetary transactions programme and the European Stability Mechanism as a crucial institution for the stability of the euro area.

Last it is clear that you should continue to strengthen the architecture of the euro area in order to improve its capacity to deliver better performance in terms of growth and cohesion. Failing to do so risks leaving the system more fragile than it should be. To this end, aim to complete banking union.

Reducing the exposure of banks to national sovereign debt is necessary for your attempt to Europeanise the banking system and introduce a European deposit insurance scheme (EDIS; see Wolff, 2016). The problem you face is that the EU has debated this strategy for the last five years without much action.

Resistance comes from a fear that EDIS would be a transfer to weaker countries while resistance to sovereign bond limits remains high because of a fear that funding might become more difficult or even impossible for the fiscally weaker countries. The result is that the unstable status quo has prevailed. You will have to look for innovative ideas to break that deadlock[19].

It is difficult if not impossible to implement banking union without at least some additional instruments to support governments’ fiscal policies. You should also look for innovative ways to create deep and integrated capital markets, as current legislative proposals have not been enough[20].

How can you best secure the support of ministers in promoting this project further? Finally, do not abandon the idea of creating a safe asset; instead weigh carefully how to do it in a way that does not distribute risk unfairly and counterproductively and prepare a template that could be used in the next crisis.

Institutional issues

In order to deliver an ambitious strategy, you will need to tackle three important institutional issues:

- The governance of the EU and Europe more generally;
- The role of the Commission and its relationship with the European Council and the European Parliament;
- The internal organisation of the Commission.

As far as EU governance is concerned, the first issue to consider is what to make of the motto *"unity in diversity."* The EU is a unique construction based on a diverse set of countries with a relatively low degree of centralisation of decision making. This diversity and decentralisation sets us apart from the United States and China. The coming years will be decisive on whether the EU can preserve and succeed with this unique model.

At the 9 May 2019 summit in Sibiu, European leaders reaffirmed their *"belief that united, we are stronger in this increasingly unsettled and challenging world."*[21]. The method of sustaining unity has been effective in maintaining sanctions against Russia and also keeping a united front in the Brexit negotiations.

The challenge is to reconcile the pledge of unity with the reality of diversity. The differences between the 27 (or 28, should the UK decide to remain in the EU) member states make it sometimes difficult, or even impossible to make progress in some areas. Unity can come at the expense of speed and depth. Unanimity can also lead to a lack of experimentation and flexibility.

There are two ways to deal with this issue:

- First, one can move to majority decision making at the level of 27 or 28. This should be possible if the union increasingly thinks that in the long-term, the pros outweigh the cons. However, the option of moving to qualified majority voting on foreign-policy decisions has already been rejected several times.
- Second, one could advance in smaller groups on specific issues. The EU treaties allow for smaller groups of countries to advance more speedily with specific projects. We consider it important not to exclude some type of differentiation.

  Any move to advance in certain groupings should be based on the core European institutional structure: the Commission and the European Parliament. It should always be clear that groups of EU countries are open to others that wish to join. Within groups, it is again possible to see unanimous decision making or majority decision making.

While we prefer greater use of majority voting at EU level, we believe you should not exclude advancing in smaller groups on some key issues where no unanimity is possible. In taxation for example, by moving forward in a smaller group, you would also increase the pressure for all to advance. Differentiation might be the only politically feasible way to deepen integration on some of these contentious topics.

The question of multispeed advancement also concerns non-EU countries. The UK and the EU's neighbourhood are of paramount importance for the EU's position in the world. Without a stable neighbourhood, the EU's influence in the world will decline. And the UK is and should remain an important ally in global forums such as the G7 or the United Nations.

Your predecessors have been busy managing Brexit, but to date, no Brexit deal has been ratified. One of your main challenges will be to define the relationship with the UK and the EU neighbours more broadly, including with Turkey and the Western Balkans.

This indicates a need to reflect on how to arrange multiple levels of integration and cooperation in a way that does not create unnecessary political tensions. You should not shy away from exploring new models of cooperation or limit yourself only to existing models.

The second issue is the relationship between your three institutions. Given the increased participation rate in the 2019 European elections, we believe that the European Parliament's role in deciding on key strategic issues will and should increase[22]. At the same time, the European Council also sets out the main strategic guidelines for the EU's future. All three of you will have to work together to advance this strategic agenda.

One of the priority issues in the relationship between the three institutions will be the interpretation of the political nature of the European Commission. One of the most important institutional changes of the last Commission was the explicit political interpretation of the mandate of Commission president. This approach has yielded results.

For example, Jean-Claude Juncker prioritised ending austerity and interpreted the fiscal rules flexibly, which we consider to be one reason for the improving economic situation of the last few years. The Commission President has also exercised political leadership in the context of the Greek crisis and has been a strong political voice in the EU-US relationship.

Jean-Claude Juncker also exercised leadership and rejected some possible nominations from member states for the Commission College. But this approach has also led to accusations that the interpretation of fiscal rules was not only done 'flexibly' but also in a partisan way – reducing trust in the Commission among some countries as a neutral arbiter.

What does a 'political' Commission mean? The Commission is obviously a political body, since many of the thousands of decisions it takes, as guardian of the treaties or initiator of legislation, are based on political value judgements.

In our view, the Commission should strive to interpret its role of guardian of the treaties, ie. when it has to interpret the treaty and the rules, in an even-handed and non-partisan way.

The EU should not interpret the rules more strictly for countries that are run by a government from a different political party, nor should countries be treated differently for reasons unrelated to the issue at hand.

Otherwise, the Commission would no longer be credible as a neutral institution at the service of the union.

Conversely, this also means that the Commission should devote sufficient resources and tools to monitoring and enforcement of the application of the treaty and rules by member states. The EU needs to strongly uphold the core principles of the union: the rule of law and the defence of core EU values.

Finally, as the nominated Commission President, you should fully use your powers to reject the nomination of candidate commissioners who do not support key European values. Those candidates would also be rejected by the European Parliament and the Commission President has a duty to anticipate that and to ensure a strong college.

When it comes to proposing or updating legislation, we consider a party-political interpretation of the role of the Commission as legitimate.

Once the Commission takes office, one of your first tasks as Commission President, will be to organise the College. Here, much will depend on your managerial approach. You might prefer a more hierarchical structure with vice presidents or a more network-like structure.

We consider it fundamental that you ensure the strong collaboration of commissioners responsible for a number of related areas – which could be done in clusters or hierarchies.

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The key areas where we see the need for close collaboration are:

- European economic sovereignty
- Sustainability
- Growth, industrial policy, innovation and the relationship with competition policy
- Migration, asylum, border protection, Schengen, internal security

An important prerogative of the Commission President is to define the mandate of the commissioners. The outgoing Commission president gave more detailed work programmes to his commissioners than any of his predecessors.

We think this is a useful way of leading the Commission and is also a good way to construct a coherent programme in line with the priorities of the various parties that support you in the European Parliament.

Europe faces major challenges, it needs an ambitious agenda and the three of you need to work together and with leaders in Europe and the world to deliver on this ambitious agenda. ■

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1. For example, by releasing methane currently stored in permafrost. Methane is a more powerful greenhouse gas than carbon dioxide. Scientists debate how strong the release of methane currently is; see for example Saunois et al (2016). Knoblauch et al (2018) points to the relevance of thawing permafrost for methane release.
2. See Voosen (2019) for a recent summary pointing out the more significant increase in global temperature.
3. For detailed reports, see United Nations (2019) and Intergovernmental Science- Policy Platform on Biodiversity and Ecosystem Services (2018).
4. And despite a rising share of national income going to capital income, the tax revenue from taxing capital income seems to be a rather stable percentage of overall revenue.
5. See Brys et al (2016) for proposals.
6. Citizens in southern European countries, however, tend to trust the EU more than their national authorities. In northern Europe, national authorities tend to be trusted more than the EU. See Eurobarometer data as reported in Demertzis et al (2019).
7. Survey conducted for Friends of Europe think tank (2019). Stopping climate change, ensuring citizen rights, managing migration, securing peace, fighting terrorism and taming globalisation are mentioned among the top issues that citizens want the EU to deliver on; see De Vries and Hoffmann (2019). Compared to the early 1990s, when Europeans were split 50-50 on the issue of defence, the share of people who think defence should become an area of joint decision-making was more than 70 percent in 2018 (Eurobarometer).
8. The EU has relied on the US lead when it comes to, for example, intelligence gathering.
9. There is a separate discussion about the screening of foreign direct investment to protect strategic sectors and key public infrastructure. While these measures reduce competition and the free flow of capital, they are warranted if there are clear geostrategic concerns.
10. We consider it unlikely and undesirable that the EU will form a political union that could legitimise and decide on such actions. Here we disagree with, for example, Bildt (2019).
11. For example, we could imagine France, Germany and the Benelux increasing collaboration or perhaps even creating a European intelligence agency. That would be an important step towards reducing dependence on US intelligence.
12. Simple models for such a scheme have been designed, see for example the carbon dividend plan from the Climate Leadership Council (2017).
13. See https://ec.europa.eu/clima/policies/international/finance_en for a summary of the EU's international climate finance commitments. Many emerging economies have made their support for the Paris Agreement conditional on financial support. See also Wolff and Zachmann (2015)
14. See Horn and Sapir (2013) for an early discussion on some key ideas how to do so.
15. Research is needed on how to increase carbon sequestration through natural means, other carbon capture technologies and on what geoengineering would imply.
16. Demertzis and Gonzalves Raposo (2018) provided a summary of six World Bank governance indicators for all EU countries since 1996 and argued that the EU needs to increase its monitoring of institutional quality.
17. Different initiatives exist that propose better ways forward. See for example International Panel of Experts on Sustainable Food Systems (2019).
18. See, for example, Food and Agriculture Organisation of the United Nations (2019).
19. You might want to consider introducing a European-level deposit insurance scheme with lower coverage as a base, to be supplemented by the current national schemes. The lower European level would still cover the vast majority of deposits and would send a strong signal to EU consumers, without being seen as a scheme for redistribution.
20. In Demertzis et al (2019), we proposed looking into a 28th regime post-Brexit for segments of the capital markets, and the use of digital technologies to integrate capital markets.
21. To this effect, they made a number of commitments, including that "We will defend one Europe - from East to West, from North to South…There is no place for divisions that work against our collective interest" (European Council, 2019).
22. Currently, much of the legislative impetus comes from the European Council, which asks the Commission to make proposals to the two co-legislators, the Council and the Parliament. Several Spitzenkandidaten have proposed that the European Parliament should also be able to ask the Commission to make legislative proposals. We support this idea, but with two caveats. First, all legislative proposals made by the European Commission, regardless of their origin (the Commission itself, the European Council, or the Parliament), should be in line with an overall work programme of the Commission. Second, requests by the European Parliament should be in areas in which the parliament is a co-legislator, and should have the support of a majority of its members.

The road to Kazakhstan

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The 70 World Trade Organization (WTO) members currently working on identifying 'elements' for a multilateral framework for investment facilitation are expected to present the fruits of their labour at the global trade club's Twelfth Ministerial Conference (MC12) in Nur-Sultan, Kazakhstan in June 2020. Should their discussions prove successful, the next step would be text-based negotiations after MC12 draws to a close.

The push to develop such a framework comes at a time when the global trade body is facing heightened pressure from multiple angles: some of these pressures are building within the system itself, while others are the result of external forces that are repeatedly testing the WTO's resilience against intense, short-term shocks, as well as its long-term health and ability to support the achievement of sustainable development objectives.

The current 'structured discussions' on investment facilitation began after the WTO's last Ministerial Conference in Buenos Aires, Argentina, in December 2017, an event that was known largely for the failure of multilateral negotiations on disciplining harmful fisheries subsidies and in setting up a new work program on agriculture-related trade talks.

This disappointment was paired with a landmark development that was largely, though not entirely, unprecedented in the organization's recent history: the announcement of various 'joint initiatives' among large groups of WTO members to lay the groundwork for new negotiations or work in select subject areas[1].

One of these four initiatives is the development of an investment facilitation framework; the other three involve preparing for formal negotiations on new rules on electronic commerce; working toward a better understanding of the intersection between women, trade, and economic empowerment; and establishing an informal work program on issues that affect micro, small, and medium-sized enterprises' (MSMEs) ability to participate in world trade.

"The fact that this is happening shows that people see this organization as a place where they can advance issues that are of importance to them and to their economies," said WTO Director-General Roberto Azevêdo at the close of the Buenos Aires Ministerial, while urging participants in these initiatives to make these discussions inclusive[2].

Since then, the WTO chief has referred to the investment facilitation efforts as a potential avenue for exhibiting the organization's *"continued importance, relevance, and credibility,"* while reminding participants at their March 2019 investment facilitation meetings to keep the process open and inclusive, even of WTO members who are not part of the initiative[3].

"While we work to respond urgently to the broader systemic issues that we face in the trading system, we also have to deliver in areas

of immediate, practical economic importance to members. For many members, facilitating investment is clearly one such area," he continued.

Proponents say that investment facilitation could also be valuable in addressing the well-documented shortfall in the investments needed to fulfil the targets included in Agenda 2030 for Sustainable Development and the related Sustainable Development Goals (SDGs), which the United Nations Conference on Trade and Development (UNCTAD) estimates to be at USD 2.5 trillion annually for developing economies[4].

While this problem is urgent, making sure this same framework or other investment facilitation efforts elsewhere do not complicate the achievement of sustainable development objectives in other ways is also essential.

Several major developing countries have argued that creating a multilateral framework for investment facilitation that would be housed at the WTO not only goes beyond the scope of the organization's mandate and capabilities, but also takes much-needed attention away from existing negotiating issues that have a clearer link to trade and are vital for the development prospects of several countries[5].

The fact that these discussions are advancing among a relatively small group, despite the opposition of some other WTO members, also raises the question of how this framework can truly be 'multilateral' as its proponents suggest, and the systemic implications of then presenting the outcome of these structured discussions to the full membership in Kazakhstan for their buy-in.

"Participants must also consider what the unveiling of this investment facilitation framework will mean for the tone of the multilateral discussions among the wider membership"

As with other trade negotiations at the WTO, the closed-door nature of the discussions also means that stakeholders typically present at UN meetings face severe limitations on weighing in on these discussions and advocating for a wider range of perspectives.

"The WTO was a rules-based institution. Any and every subject was not within the domain of the WTO as had been laid down in the Agreement Establishing the WTO. If members had to start seeing it as a discussion for each and every subject, it would destroy the rules-based institution," India said at the May 2017 General Council, where it blocked the addition of an agenda

item on investment facilitation on these and related grounds, and stressed the language agreed at the 2015 Nairobi WTO Ministerial about not negotiating on issues where there is not a consensus[6].

More recently, a group of ministers from developing economies meeting in New Delhi in early May 2019 issued a statement stressing that any new issues being considered under the 'joint initiatives' from Buenos Aires must ensure they are supportive of the multilateral trading system.

"Multilateral avenues, based on consensus, remain the most effective means to achieve inclusive development-oriented outcomes. Members may need to explore different options to address the challenges of contemporary trade realities in a balanced manner," they said[7].

Understanding investment facilitation

The group involved in these investment facilitation talks is currently meeting on a near-monthly basis, with their next meeting planned for July[8]. They have moved from naming possible issues to include in this framework to a discussion that is more 'concrete' and incorporates examples and lessons learned from WTO members' own experiences. This stage is based on a checklist of issues that were raised during their meetings in 2018, though the full checklist is not publicly available.

These issues fall within the categories of making investment measures more transparent and predictable, streamlining and speeding up administrative procedures and requirements, developing ways to improve international cooperation and sharing of information and best practices, and seeing that development-related issues are incorporated into such a framework. The sessions themselves are open to any interested WTO members, but are not open to other stakeholders.

Within the area of investment measures' transparency and predictability, possible 'issues' that participants raised last year included the notification of these measures to the WTO, along with making those measures publicly available[9,10].

For administrative procedures and requirements, participants are examining issues such as whether to set time limits for administrative procedures or how to use information and communication technologies in making these procedures advance more quickly and cleanly[11].

On development, these discussions include the complex and important issue of special and differential treatment, which refers to provisions that allow developing countries additional latitude in implementing some of the WTO's rules, such as exemptions or additional time.

While the structured discussions are barely over a year old, the subject of whether and how to address investment at the WTO is a debate whose origin dates back decades. In the organization's early years, the relationship between trade and investment was one of the four 'Singapore issues' that working groups were tasked with considering after the organization's first ministerial conference in 1996[12].

These working groups were meant to assess whether and how to include trade facilitation, investment, competition, and transparency in government procurement[13]. After the Cancún ministerial collapse in 2003, the Singapore issues were formally dropped in 2004, with the exception of trade facilitation, which was integrated into the Doha Round negotiating agenda.

It is worth noting that there are some existing WTO Agreements that do address certain aspects of investment, such as the Agreement on Trade-Related Investment Measures (TRIMs) and the General Agreement on Trade in Services (GATS).

During the intervening years, investment-related discussions, aside from in the context of GATS and TRIMs, were largely absent from the WTO, though the international investment law and policy regime outside the global trade club has evolved substantially. The number of bilateral investment treaties or treaties with investment provisions that countries have negotiated now numbers at over 3,300, though not all of these remain in force, according to UNCTAD[14].

Within the regime of IIAs, Brazil has made the notable shift in abandoning the negotiation of bilateral investment treaties in favour of cooperation and facilitation agreements (CFIAs) with interested partners[15]. G20 members in 2016 adopted Guiding Principles on Investment Policymaking, a notable first for the coalition, though the item was omitted from leaders' communiqués in 2017 and 2018[16].

UNCTAD, along with the Organisation for Economic Co-operation and Development (OECD), has also played an active role in developing guidance for country governments and regional bodies that they can use in their investment policymaking efforts, including on investment facilitation in relation to sustainability objectives[17].

The new investment facilitation discussions among the WTO member group was the result of a push by two different configurations of countries. One of them is a group known as the Friends of Investment Facilitation of Development (FIFD), which includes a growing coalition of developing economies that have advocated for an 'informal dialogue' on the issue and have held multiple workshops and regional outreach events[18].

The other group supporting this effort, known as the MIKTA, included Mexico, Indonesia, South Korea, Turkey, and Australia[19]. Officials from these WTO members, along with some trade experts, suggest that investment facilitation is the natural sequel to the WTO's Trade Facilitation Agreement (TFA), which is the only global trade deal that the organization has managed to negotiate, adopt, and bring into force since the World Trade Organization was first founded in January 1995[20]. The TFA and investment do have a common history at the WTO, in terms of both being 'Singapore issues'. From there, however, their tracks diverge.

Trade facilitation addresses topics which generally fall within the remit of ministries and border agencies that work on areas such as trade, customs, transport, and foreign affairs. The objective behind trade facilitation is reducing trade costs: making sure that trucks are not stalled for days when crossing national borders, for example, or face onerous bureaucratic hurdles in the form of duplicate document requirements and administrative barriers[21]. At the time of this writing, the Trade Facilitation Agreement had been ratified by 142 of the WTO's 164 members.

Investment facilitation is another matter altogether: much of investment facilitation touches upon the regulatory environment in which investors operate, which has implications for the business climate[22]. Developing and implementing multilateral measures in this area would require the involvement of multiple ministries, well beyond those that deal with border issues affecting goods in transit, while implicating a host of economic sectors.

How an investment facilitation framework would be designed without expanding into investment liberalization and protection would be complicated at best. The conclusion that investment facilitation disciplines merit further development because the TFA negotiations were a success would therefore be far-fetched, given the conceptual and practical differences between these two subjects in theory and in practice.

The TFA also involved a multilateral negotiating process with an agreed mandate and scope, where all 164 members could advocate for their interests, as opposed to the current approach in the investment facilitation talks, where a multilateral framework is being discussed among less than half of the WTO membership.

Eyes on Kazakhstan ministerial conference

The investment facilitation discussions are preparing to enter their next phase after the summer. Other joint initiatives, namely e-commerce, are now entering a new chapter involving detailed, substantive talks. With just one year to go until the next WTO ministerial conference, these efforts are also taking place in a landscape that, in some ways, have very little to do with investment facilitation at all.

WTO members and the institution overall are grappling with an additional challenge: that without a major win in June 2020 in Kazakhstan, either at the 'plurilateral' or multilateral levels, the interest and attention of member governments, the private sector, civil society, and academia will move even further away from the global trade club and into other forums and trade agreements, where not all voices will necessarily be included.

WTO members in Kazakhstan and beyond, however, need to make sure that they are negotiating not just for the sake of achieving any agreed multilateral outcomes, but that these outcomes address priority issues with urgent development implications, while avoiding the missteps that have prevented these negotiations from reaching a successful, development-oriented conclusion in the past.

There are already some worrisome signs in the regular negotiations among the full WTO membership. Multilateral talks on disciplining harmful fisheries subsides have been highly active since the Buenos Aires Ministerial Conference, yet trade officials caution that these efforts need to move beyond engagement into substantive progress, both on technical issues and in securing the political will to meet their current end-2019 target, or even by the June 2020 Kazakhstan Ministerial[23].

Negotiators working on agriculture are planning to move from working group discussions to more formal talks after July 2019, but what level of ambition they will aim for and what issues they may take is far from clear, with options including an outcome on transparency, a package of incremental advances in select areas, or a comprehensive set of reforms to agricultural trade rules in areas such as domestic support or public food stockholding.

Again, while there has been intense activity in this area in Geneva, moving from activity to a consensus, development-oriented outcome supported by all 164 members is a notoriously tough ask, and has proven especially difficult in the agriculture negotiations.

Concurrently, the WTO is being repeatedly tested against its ability to handle shocks, including economic ones that lie outside the realm of the institution, such as the US-China trade tensions that have involved months of tense negotiations and tariff escalations, or the impending exit of the United Kingdom from the European Union.

It is also facing pressures from within, with its dispute settlement system on dangerous ground. The Appellate Body is widely expected to stop functioning at year's end: December 10, 2019 is when two more judges' terms expire, leaving just one Appellate Body member left. The United States, which has been blocking the start of selection processes to fill the vacant Appellate Body slots, has repeatedly made clear that it has no plans to remove its objections any time soon.

US Ambassador to the WTO Dennis Shea said in early May that his country could not support any of the proposals for Appellate Body reform that some WTO members have lately put forward, nor has Shea indicated any obvious signs of what approaches could pass muster[24].

Under WTO rules, three Appellate Body members must sign off on any report, and there is a growing fear that WTO members will be able to appeal reports they disagree with to a body that is unable to take on its appeal. This situation would create an unprecedented state of legal uncertainty, making it impossible to have final, binding rulings on whether members' disputed measures are consistent with global trade rules.

As the days and months tick down toward the Kazakhstan Ministerial, another question is looming large over delegates: whether any negotiated outcomes, multilateral or otherwise, can be effectively enforced in the absence of a functioning Appellate Body.

If the investment facilitation and e-commerce joint initiatives both advance enough that their proponents can present outcomes for ministers' consideration in Kazakhstan, this will also raise a host of additional questions: what will it mean for the multilateral trading system, for example, that elements for this multilateral framework on investment facilitation or a new set of draft rules on e-commerce have been developed among a WTO member group, rather than by all 164 WTO members.

While the Nairobi Ministerial Declaration in 2015 made clear that negotiating on any non-Doha Round issues at the WTO would require the signoff of the full membership, the implications of that compromise language in practice could be far-reaching on multiple levels, such as on the levels of energy and interest devoted to existing negotiating issues that are of particular importance to developing and least developed countries (LDCs)[25].

Some developing countries have questioned whether they would get the same traction if they raised 'new issues' of their own without an agreed mandate to do so, leading to an even greater imbalance among the membership and on the organization's overall agenda[26].

For example, at the May 2017 meeting of the General Council where China had asked to put an item on the agenda about investment facilitation, Uganda was one of various countries referring back to the Nairobi Ministerial Declaration, and the concern that in that meeting's aftermath some members were now ignoring issues with existing mandates and instead bringing up new ones of particular interest to them. *"Would anybody pay attention to the LDCs if they raised an issue without a mandate?"* Uganda said, according to the meeting minutes[27].

Going forward, participants of this joint initiative must consider what the absence of some emerging economies, such as India and South Africa, from the talks means for the development dimension of any final outcomes, even if these economies have opted against participating in those discussions for the above-mentioned reasons[28].

Participants must also consider what the unveiling of this investment facilitation framework will mean for the tone of the multilateral discussions among the wider membership, which are already loaded with tension, and whether it will bring back the frustrations and conceptual disagreements that were on display in Nairobi over three years ago. ■

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AFRICA'S LEADING CONVENTION CENTRE

THE DURBAN INTERNATIONAL CONVENTION CENTRE (DURBAN ICC) IS A WORLD-CLASS FACILITY, RENOWNED FOR ITS HIGH STANDARDS OF SERVICE EXCELLENCE AND HAS SUCCESSFULLY STAGED SOME THE WORLD'S MOST PRESTIGIOUS AND COMPLEX EVENTS.

This multi-award winning Centre has been voted "Africa's Leading Meetings and Conference Centre" by the World Travel Awards no fewer than 17 times in 18 years. The DURBAN ICC prides itself on being a leading venue for meetings, business events, conferences and exhibitions on the African continent. However, this is not their own opinion, but rather the overwhelming feedback received from their clients who have voted it in the top 1% of Convention Centres worldwide.

The DURBAN ICC is a versatile venue of enormous dimensions, flexible enough to meet any need, no matter how extraordinary. The Centre offers the largest column-free, multipurpose event space on the African continent. International and national conventions, exhibitions, sporting events, concerts and special occasions of every kind can be accommodated. Flexibility and versatility are key factors in the design of this state-of-the-art, technology-driven Centre.

The DURBAN ICC's track-record of successfully staging prestigious international events speaks for itself. The DURBAN ICC's successful staging of both the largest (International AIDS Conference 2016 - attended by 22 000 delegates) and second-largest (COP-17 in 2011 - attended by 15 000 delegates) conferences ever held on the African continent, is testament to the DURBAN ICC's service excellence. The 27th World Economic Forum on Africa (WEFA) was hosted in May 2017 and attracted over a 1,000 delegates from over a hundred different countries, including several African leaders and an impressive list of global speakers. The DURBAN ICC also hosted the International Telecommunication Union (ITU) Telecom World 2018 which was attended by approximately 8000 delegates including tech SMEs, policy makers, investors, corporates and digital innovators. Most recently the Centre hosted the Forbes Woman Africa - Leading Women Summit 2019 which brought together influential women from across industries and professions.

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Demonstrating its commitment to quality, the DURBAN ICC is five-star graded by the Tourism Grading Council of South Africa and maintains its ISO9001, ISO14001, ISO22000 and OHSAS18001 certifications ensuring the highest international standards in Quality Management, Environmental Responsibility, Food Safety and Health and Safety. The DURBAN ICC is the only convention centre in the country to hold all four of these certifications.

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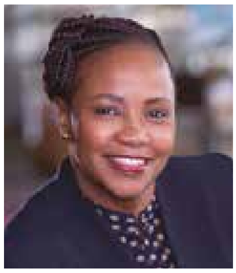
DURBAN ICC Fast Facts:

- Located in Durban, known as South Africa's entertainment "playground".
- Durban International Convention Centre (DURBAN ICC) is comprised of the DURBAN ICC Arena and the Durban Exhibition Centre.
- Voted "Africa's Leading Meetings and Conference Centre" by the World Travel Awards no fewer than 17 times in 18 years and continuously strives to deliver excellent service.
- Largest flat floor, column-free multi-purpose event space in Africa.
- Maximum capacity at the Convention Centre: 5,000 delegates over 7,000 sqm/in combination with the Exhibition Centre: 10,000 people.
- Ranked in the world's Top 15 Convention Centres by the International Association of Congress Centres (AIPC).
- The Centre is located 30-minutes from the King Shaka International Airport and over 3,600 Hotel rooms are within a 10-minute walk of the Centre.



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How to ensure effective sustainable financing of international development

Christine Lagarde is Managing Director of the International Monetary Fund

Our focus today is on sustainability. Sustainable debt for sustainable growth—and, may I add, on a sustainable planet and for a sustainable future.

The challenge of attaining the SDGs

We are all committed to see low-income countries make decisive and lasting advances in development. This commitment is embodied in the Sustainable Development Goals, or SDGs—the noble trifecta of economic prosperity, social inclusion, and environmental sustainability. Attaining the SDGs is both an economic and ethical imperative.

Yet we face a steep uphill climb. Our work at the IMF has shown that many countries need to significantly scale up spending to meet the SDGs by 2030. The additional spending needs in vital areas such as health, education, and priority infrastructure represent as much as 15 percentage points of GDP on average in low-income developing countries—which is equivalent to about half a trillion US dollars in 2030. This is clearly a considerable challenge.

How can this be financed in a way that is sustainable? This is the key question. The first step begins at home—raising more domestic revenue, making spending more efficient, reducing corruption, and improving the business environment.

We believe that countries can raise as much as 5 percentage points of GDP in additional tax revenue—ambitious, but doable. But this alone will not be enough. Developing countries will also need support from the international community—from bilateral donors, international institutions, and the private sector.

On the latter: it is high time for the private sector to embrace a greater sense of social responsibility, focusing more on long-term development and less on short-term profit. Fortunately, we are seeing far greater interest in 'impact investing' and financial instruments that embrace environmental, social, and governance issues. This certainly bodes well for the SDGs.

The financing conundrum

We also need to talk about debt financing, which has become again an issue of concern. Let me drill down a little on this topic. On one level, of course, there is nothing wrong with borrowing for development—if it is done sustainably. Here, let me share some good news and some not-so-good news.

First, the good news. In recent years, low-income countries have been able to access more financing. This partly reflects relatively easy global financing conditions. More importantly, we have also seen a diverse group of official creditors step up to make funding available, and sometimes on a very significant scale in support of potentially transformative infrastructure investment.

China's Belt and Road Initiative has attracted considerable attention in this regard. The Asian Infrastructure Investment Bank (AIIB) has also emerged as an important source of financing, and the Islamic Development Bank's capital was more than tripled recently.

Now for the not-so-good news. Unfortunately, not all borrowers have managed this increased financing well, and others have been hit by significant economic shocks. The result has been a rapid rise in the median debt burden to 47 percent of GDP in 2018 for low-income developing countries. The rise has been particularly concentrated in commodity producers.

Forty-three percent of low-income developing countries are currently assessed at either high risk of debt distress or are already in debt distress, compared with 21 percent in 2013. So how can we get past the conundrum that countries need to spend more while their macroeconomic stability is in jeopardy?

International initiatives

As I survey the landscape, I do see a lot of efforts in the global community to find solutions that contain debt vulnerabilities.

Just to give some examples:

The German Presidency of the G-20 initiated the Compact with Africa. It stressed the need for better public financial and macroeconomic management, as well as legal and regulatory frameworks to encourage private investment and strengthen borrowing countries' ability to better manage debt.

China just announced a new framework for evaluating debt sustainability in Belt and Road recipients—closely aligned with the framework employed by the World Bank and the IMF. We welcome this initiative by an important official creditor.

And Caribbean countries have been exploring ways to adapt their debt instruments to build resilience against shocks—with the support of the Paris Club, the World Bank, and the IMF. These are all excellent examples of multilateralism at work, of global solidarity. We need to continue to push these initiatives forward together.

The role of borrowing countries

Of course, borrowing countries themselves have a role to play, first and foremost by raising the payoff from public investment. Moving from the lowest to the highest public investment efficiency quartile could double the impact of investment on output, and thereby better underpin debt sustainability.

Strengthening debt management will also be crucial. This can be quite tricky. As debt instruments get more complicated, debt management capacity needs to become more sophisticated. Yet today, only 40 percent of countries meet basic standards for debt recording, while just a third meet standards for reporting and monitoring of guarantees.

Technical assistance will be critical here. Many of you have made contributions to the World Bank-IMF Debt Management Trust Fund, to support this kind of capacity building, and I am extremely grateful for your support.

Backed by this Trust Fund, we will scale up our assistance over the next five years, with the aim to double it. Better debt management also leads to greater transparency. This is fundamental to sustainable financing.

"Over the coming decade, mobilising financing to support the SDGs will be one of the most important challenges faced by the global community. But financing needs to be more sustainable than before"

The role of creditors

Let me now talk about the role of creditors, who have a vital role to play in encouraging greater transparency. As we have seen in Mozambique, private lenders can effectively facilitate hidden debt. Even for official creditors, non-disclosure agreements or complicated financing modalities can work against transparency.

I therefore welcome the work being done by the Institute of International Finance (IIF) on *Principles for Debt Transparency* of private creditors. I also welcome the G-20's self-assessment relative to its operational guidelines for sustainable financing. I encourage all G-20 members to participate. It is vitally important to push ahead with further reforms. The new creditor and instrument landscape is making it much harder to help countries restructure their debt.

Recent cases, such as the Republic of Congo and The Gambia, showed that restructurings can be drawn out, in part because we cannot rely on established creditor coordination mechanisms. And there is no one-size-fits-all solution here. In each of these cases, there was a different set of creditors. There is no one creditor to single out; it is a deeper and broader problem. Yet there are potential solutions on the table.

The role of the Paris Club

Most importantly, the Paris Club can play an important role in coordinating debt resolution because it incorporates best practices and has a wide membership—recently expanded to include Korea and Brazil. Wider membership of the Paris Club, including new official and plurilateral creditors, could help secure more rapid and coordinated debt resolutions.

Short of that, any debt restructuring efforts involving non-members would do well to closely follow the tested rules that Paris Club members have used for many years.

Conclusion

Let me conclude by mentioning the role of the IMF and the World Bank in all of this. Our two institutions have been collaborating closely on a detailed multi-pronged work program to address debt vulnerabilities. This includes strengthening debt analytics to help lenders and borrowers better understand risks. It also includes improving the quality, comprehensiveness, and transparency of debt data; and strengthening countries' capacity to manage debt.

Over the coming decade, mobilising financing to support the SDGs will be one of the most important challenges faced by the global community. But financing needs to be more sustainable than before.

We look forward to working with the international community to develop and implement the ideas to resolve these issues, and welcome today's forum to help advance our efforts.

After all, it is about the flourishing of all people in a way that respects the limits of nature. What can be more important? We have identified and acknowledged the challenge, now we must act together to deliver. ■

Avoiding the storm: climate change and the financial system

Sarah Breeden is Executive Director, International Banks Supervision, at the Bank of England

My message is simple. Climate change poses significant risks to the economy and to the financial system, and while these risks may seem abstract and far away, they are in fact very real, fast approaching, and in need of action today.

In short, there are storm clouds on the horizon and the financial system needs to act now to plot a new course to safer waters. To do that we will need three things. Firstly, a destination. Secondly, an able crew. And finally, a nautical chart – or map - to get us there.

We have the destination. More than 190 countries have signed the 2015 Paris agreement and set a goal to limit average global temperature rises to well below 2 degrees above pre-industrial levels[1]. We even have a broad course to follow – that of a smooth and orderly transition.

We have also assembled a crew. Managing the transition to a low carbon economy is a global challenge that requires a global response. And so a coalition of the willing among central banks and supervisors have come together to form the Network for Greening the Financial System (NGFS)[2].

In addition, and closer to home, we are working domestically with industry through the Climate Financial Risk Forum (CFRF)[3] to build intellectual capacity and establish best practice in how to manage the financial risks from climate change.

What we are missing is the map. Getting us to our destination requires an understanding of what risks lurk in these deep waters and what future winds may buffet us, so we can make better decisions today. We need more data, greater disclosure, better analytical toolkits, advanced scenario analysis and new risk management techniques to help identify the hidden dangers on our journey.

Of course there are opportunities potentially in front of us, too. Financing that orderly transition to a low carbon economy holds the promise of favourable tailwinds and smooth sailing. But how do we begin to draw this map? Climate change is an unprecedented challenge and, I am sorry to say, there are no existing charts for us to follow.

We therefore need to start with the very basics - understanding how, and on what scale, climate change creates risks for the financial system.

How the financial risks from climate change affect the financial system

The financial risks from climate change manifest through two channels – physical risks and transition risks.

Physical risks arise from damage to property, land and infrastructure from catastrophic weather-related events and broader climate trends such as heatwaves, hurricanes, droughts, floods and rising sea levels. These are not just risks for the future. Inflation-adjusted insurance losses from these events have increased fivefold in recent decades[4]. And these physical risks affect banks and other financial institutions too.

For example, according to analysis[5] by ClimateWise, the average annual loss on UK residential mortgages from flood risk is expected to more than double by 2050 in a 4 degree world. And smaller lenders with geographic concentrations would be more at risk. The risk to the safety and soundness of the firms we supervise is clear.

Transition risks arise from changes in climate policy, technology and market sentiment as we adjust to a lower-carbon economy. The need to transition is widespread, affecting not only energy companies but also transportation, infrastructure, agriculture, real estate to name just a few.

The implied change in energy costs from the transition will have a significant effect on many businesses. And so banks that have provided loans to those companies and investors that own their securities may find themselves with unexpected losses.

The timing and form of transition is inherently uncertain. But here, too, risks are already materialising[6]. Tightening energy efficiency standards are affecting property markets. And credit risks associated with the low-carbon transition are already emerging in the automotive and energy sectors.

The distinctive nature of the risk

It is therefore clear to us at the Bank that climate change

"We can already hear distant thunder, but we must not wait for the storm to hit. We need to work together internationally and domestically, private sector and public sector, to achieve a smooth and orderly transition"

creates financial risks that are core to our mandates of safety and soundness and financial stability. But we have also been clear that the financial risks that climate change creates are distinctive and require a different approach if they are to be managed effectively.

First the risks are far-reaching in breadth and scope. They will affect all agents in the economy, in all sectors and across all geographies. Their impact will likely be correlated, and non-linear. They will therefore occur on a much greater scale than other risks.

Second, the risks are eminently foreseeable. I cannot tell you now exactly what will happen and when. But I can say with a high degree of certainty that some combination of physical and transition risk will materialise at some point in the future. Uncertainty about what will happen cannot lead to inaction and inertia. Rather we must develop different ways of managing the risk.

Third - and for me this is key - the size of those future risks will be determined by the actions we take today. The carbon released today is creating the physical and transition risks of tomorrow. Climate change therefore represents the tragedy of the horizon: by the time it is clear that climate change is creating risks that we want to reduce, it may already be too late to act.

That need to act most obviously includes government through climate policy. But since the financial risks that climate change creates are to be managed in all future states of the world, it is incumbent upon financial firms, and central banks and supervisors, to act too.

Sizing the risk

How well placed are we to measure these far-reaching, foreseeable financial risks that require action today? To return to our metaphor of the storm – do we know if we are facing a near gale or a hurricane?

Studies show that average global incomes could be significantly reduced, perhaps by as much as one-quarter by the end of the century, if limited or no action is taken to reduce carbon emissions. Global averages of course mask significant differences across regions and sectors.

And most estimates are in my view conservative – particularly since the models are partial, heavily dependent on assumptions, and do not capture well the non-linearities that are a key feature of the most recent climate analysis.

The good news is that these risks can in principle be avoided. Let me be clear, the scale of transition is significant. But it need not create substantial costs across the global economy as a whole.

There will of course be winners and losers. Studies have focused on the impact from the transition on the financial system through 'stranded assets' that turn out to be worth less than expected, probably zero in the case of unburnable carbon. The estimated losses are large – $1 trillion-$4 trillion when considering fossil fuels alone, or up to $20 trillion when looking at a broader range of sectors.

Even at the bottom ends of these ranges, losses represent a material share of global financial assets. A climate Minsky moment, where asset prices adjust quickly with negative feedback loops to growth, seems possible. That underlines why the financial system needs an early and orderly transition. And why we need to change course now.

The Bank of England's response

Now we have established that the financial risks from climate change are significant and relevant to our objectives, what is the Bank of England doing about it?

We are of course considering the implications of climate change for our own operations, taking account of the financial risks from climate change whilst ensuring the purpose of our core operations as a central bank is preserved. In our work with the financial system more broadly we are taking a two-pronged approach, tackling the issue top-down and bottom-up.

Bottom-up: supervisory expectations, CFRF, disclosure

The action, or lack of action, of individual institutions will be critical in determining whether climate-related risks are well managed.

To that end, today, and following several months of consultation, we became the first regulator in the world to publish supervisory expectations that set out how the banks and insurance companies we regulate need to develop an enhanced approach to managing the financial risks from climate change[7].

Our expectations cover governance, risk management, scenario analysis, and disclosure. They are designed to ensure firms take a strategic approach, led by the Board, and with clear accountability. The approach should be holistic, forward-looking, embedded in business-as-usual risk management but grounded in the long-term financial interests of the firm.

We have deliberately not been prescriptive in our expectations, recognising that our understanding of this risk is immature but that it needs action now. Over the next year or so, as tools and expertise develop, we will however embed more granular requirements into our policy, to bring industry in line with our evolving expectations.

To support this development of best practice, we have established the UK Climate Financial Risk Forum (CFRF), co-chaired by the Prudential Regulation Authority and the Financial Conduct Authority.

The forum brings together a wide range of industry participants (banks, insurers, the LSE and asset managers) as well as regulators. We have established four workstreams – disclosure, risk management, scenario analysis and innovation – each of which will help us put greater detail on our map.

The Bank supports the disclosure of climate risks by firms in line with standards set out by the Task Force on Climate-related Financial Disclosures (TCFD)[8].

Disclosure by firms is critical if the financial system is to be able to weigh risks and direct investment accordingly. It is essential that that disclosure is forward-looking, speaking to future risks and opportunities and not just current emissions.

Speaking personally, I cannot see that we will be able to disinvest our way to a low carbon economy. And we need to get to a position where we have a better basis for consistent comparisons across different firms.

Top-down - scenario analysis, BES, stress testing

Let me be clear this is just the start of our voyage. To be able to judge whether we are sufficiently well prepared for the future storms - to see whether a change in course or greater financial resilience is required - we need to look forwards not backwards, and we need to consider the position of the system as a whole.

Measuring these future risks from climate change to the economy and to the financial system is a complex task. A myriad of possible climate pathways – with different physical and transition effects – need to be translated into economic outcomes and financial risks looking ahead over many decades.

To simplify that challenge, we need to focus not on what will happen but what might happen.

To do that we can use scenario analysis – data driven narratives that help anchor our assessments of risk. We might think of that as investigating a small number of different courses that we could follow, in order to determine which delivers the safest passage.

Using scenario analysis to paint a picture of the risks of continuing along the current climate trajectory creates a clear strategic imperative to act.

Considering a scenario where our climate goals are met highlights the changes that will be needed to support a transition to a low carbon economy. Both expose the customers, sectors and geographies that are vulnerable to physical and transition risks and therefore highlight the areas where action is required.

Analysis of a disorderly transition - with sudden, unanticipated and discontinuous effects, perhaps prompted by the greater occurrence of extreme weather events – will demonstrate greater risk. That should incentivise financial firms to seek to pull forward the transition so that they are ahead of and in control of it - directing their capital to those that are resilient and avoiding those that are not.

By taking different decisions today, participants in the financial system are able to minimise their future financial risks. But while necessary, that may not be sufficient to deliver a financial system that is resilient to the financial risks from climate change.

Instead, we need also to consider this risk at the level of the system. In particular, do the actions of individual institutions in aggregate deliver the smooth climate pathway that their individual plans assume? And if they do not, what further action is required? In this way we can begin to stress the resiliency of financial system to the risks from climate change.

To that end, the Financial Policy Committee and the Prudential Regulation Committee here at the Bank of England will consider including climate related factors in a future Biennial Exploratory Scenario.

The PRA will also ask UK insurers, as part of its market-wide insurance stress tests this year, to consider how their businesses would be affected in different physical and transition risk scenarios. And the NGFS plans to set out voluntary guidelines for how central banks can use scenario analysis to assess system-wide financial risks from climate change.

Scenario analysis thus bridges the gap between our top-down and bottom-up understanding of risk. That supports different actions by financial firms, central banks and supervisors today, and ensures that everyone is steering a safer course to avoid that otherwise impending storm.

Opportunities

My natural focus as a central banker is on the risks. But let me spend a brief moment on the opportunities.

The investment needs to finance this transition are significant – an estimated $90 trillion (almost five times US GDP) by 2030[9]. This presents substantial opportunities for the financial sector to develop new products and services to mainstream green finance.

To support that goal, we might well need to develop new standards and classifications to identify which economic activities contribute to the transition to a low-carbon economy. With buoys pointing the way, we will be better able to identify the investment and lending decisions that will support a smooth and orderly transition.

Conclusion

Where does this leave us? I set out at the beginning our need for a map to get us to our destination. And I have set out how we at the Bank of England have begun to draw that map and where further cartography is in train.

What I did not mention is that the economy and the financial system appear to me to be like super-tankers rather than high-speed catamarans in the America's Cup. To change course, therefore, we need early action, a sustained effort and a recognition that it is better to be roughly right now not precisely right when it is too late.

We can already hear distant thunder, but we must not wait for the storm to hit. We need to work together internationally and domestically, private sector and public sector, to achieve a smooth and orderly transition.

The window for that orderly transition is finite and closing. And our work to seize that opportunity could not be more important. Indeed it is not an overstatement to say that the future of our planet depends on it.

All hands on deck. ■

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Weaponising ODI

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India's economic ties with its immediate and extended neighbourhood are perhaps not as well planned as they could be. Economic ties in the sub-continent have suffered for a decade now. Not only is SAARC dead in the water owing to India-Pakistan hostilities, but alternative fora such as BIMSTEC and SASEC have also fallen short of fostering the desired regional economic integration goals.

As the western world becomes more and more protectionist and the world continues to cope with the America-China trade wars, there is an immediate need for India to look at other markets for export.

Even while India's foreign investment inflows and overseas investment outflows have remained relatively stable, prevailing conditions throw up some as yet unexplored questions. In terms of trade and investments, who or where does India place its chips? What are the trends in India's trade and investment over the past few years? Does India plan its outward investments at all?

If yes, then does it do so based on existing bilateral and multilateral relations, or with a view to building assets for future returns? We address a few of these questions here and in the course of our analysis also examine if India could potentially use overseas direct investment (ODI) as an economic tool to further its strategic, geopolitical goals.

A nation's desirability as an investment destination is measured by its foreign direct investment (FDI) inflows. In most developing and emerging economies, this is also a measure of robust growth. However, while FDI receives the bulk of attention, its counterpart – overseas direct investment (ODI) receives little to no mention, let alone planning or attention.

As far as trade and foreign policy are concerned, focusing on ODI outflows and measuring their impact on bilateral and multilateral trade is equally necessary. More so even because it can be a useful strategic tool in a nation's foreign and trade policy arsenal.

Trade has always been the driver of economic integration at the regional level and of economic co-dependence at the bilateral level. While the economic benefits of trade are apparent and capitalised on by most, the strategic benefits of trade need to be highlighted more often – specially to inform better foreign policy decisions.

It is clear as day for anyone to deduce that wealth wields influence. Strong economic relations help build any nation's influence, as is clearly seen in the case of countries like the United States and China.

In India's case, strong bilateral and multilateral economic relations will determine which countries stand by us in our times of need. There have in fact been instances of where India's economic relations with another nation have helped either

nation to get through some tight spots, both economically and strategically.

Take for instance, India's trade with Iraq and Iran. India chose to meet her oil needs through imports from Iraq during US sanctions, and these were done through innovative mechanisms such as Oil-for-Food Programme through which India was able to pay for oil through delivery of essential commodities to Iraq. In fact, India increased its crude oil imports from Iraq, leading to an increase in trade from USD 5.7 billion in 2006-07 to USD 20.52 billion in 2012-13[1].

Medical aid was another important aspect of this trade. Iraq had always been one of India's largest export markets before the onset of the Gulf War. It was only because of India's historic diplomatic and economic relations with Iraq that allowed for the timely evacuation of all 80,000 Indians in Iraq prior to the 1991 Gulf War[2].

Strong economic relations also led to the support of Iraqi government for evacuation of Indians from the country in 2014, at the peak of the conflict with ISIS. Similarly, India's steady trade with Iran also stood us in good stead when during US sanctions on Iran over their nuclear program, Iran agreed to accept payment for their oil in Indian rupees[3].

Even more importantly, India has been a strategic investor in the Chabahar Port, which ensures India's connection to Eurasia.

"India needs to reduce her focus on development assistance and soft diplomacy, and balance it out by working on building economic relationships in the neighbourhood"

It is for this reason that despite the low convertibility of the Indian rupee, the Iranian administration continues to repose trust in India as both a customer and a trade partner. Now, at the time of sanctions again, Iran is using Indian rupee to buy sugar from India[4].

Israel's approach to building ties with India is a noteworthy case study on building strategic ties using economic or trade tools. Even though India had voted against the creation of Israel in 1948 at the United Nations, when India needed arms during the 1971 war and requested the same, Israel responded. Israel was able to come to India's aid again in 1999, when ammunition and missiles were required during the Kargil War.

Despite pressure from the US on delaying arms deliveries to India, Israel took the decision to speed up deliveries and kept the supply going. It was post Kargil, in 2000 when high level ministerial exchanges began between India and Israel[5]. India has not looked back since, and the India-Israel relationship has gone from strength to strength.

These economic ties that complemented diplomatic ties were what helped India at the time of US sanctions post the Pokhran Nuclear Test. At the time when the US decided to withdraw all economic aid, credit and credit guarantees, and opposed any kind of economic lending to India, it was India's economic ties that helped her. All trade in technology and strategic materials was banned, credit and loans were also stopped under the sanctions.

However, trade in essential commodities such as oil, natural gas and even ammunition continued with the support of nations like Iran, Iraq and Israel. India's prescience in ensuring trade was spread across partners and no dependence on a single partner existed, helped it take a stand and bide its time.

A time that arrived within the decade and India received a waiver from the Nuclear Suppliers' Group to pursue civil nuclear agreements with other nations[6]. The US rolled back sanctions of its own accord. Not only because history came calling in the form of 9/11, but also exports from several American states took a hit and their industry suffered as a result[7].

While it is evident that trade and economic relations have particular foreign policy and strategic significance, given examples do not particularly highlight how ODI can be used as a foreign and strategic policy tool. For this, we examine the approaches adopted by the US and China.

With the establishment of the Bretton Woods system for the management of a new financial order in the post war years, the

Table 1. Annual Overseas Direct Investment Outflows 2010-2017 (USD millions)

Country/Year	2010	2011	2012	2013	2014	2015	2016	2017
United States	277,779	396,569	318,196	303,432	294,754	262,569	280,682	342,269
China	68,811.3	74,654	87,803.5	107,843.7	123,119.9	145,667.2	196,149.4	124,630
India	15,947.4	12,456.2	8,485.7	1,678.7	11,783.5	7,572.4	5,072.4	11,304.4

Source: World Investment Report 2018, UNCTAD

US led the charge on the creation of a capitalist, free-market, international order[8]. It has championed the cause of removal of trade barriers and free flow of capital across borders. In the process, it became the world's largest foreign direct investor, as well as recipient of the largest foreign direct investments.

Coincidentally, China capitalised on the FDI from the US to build scale in its manufacturing sector. Ranging from textiles to defence technology, China used FDI inflows during its transitionary development years to build capacity and consequently used ODI outflows to create resource bases in foreign nations.

A US Senator, John Cornyn said in a statement last year that China had *"weaponised investment"* to siphon off US advanced technologies over the years, and consequently undermine their defence industrial base[9]. While this is still debatable, China has been creating a formidable resource base through a decidedly Chinese style of ODI.

Chinese ODI spans the breadth of 90 countries and sectors ranging from services, manufacturing, resource exploration and extraction to transport, communications, finance and hospitality[10]. China's initial patterns of ODI therefore served a four-fold purpose.

One, promoting the export of commodities it produced, therefore ensuring an efficient trade balance. Two, securing of natural resources either for present or future use. Three, controlling the distribution of these natural resources to other countries, and four, to ensure Chinese presence in the form of businesspeople across the globe. The latter has been the main reason for the shift in recent years of Chinese ODI to developing or poor economies, especially in nations that lie on the One Belt, One Road (OBOR) initiative axis.

However, the pattern of investments has also shifted to what are generally recognised as poorly governed nations, mainly Africa and Latin America, which also meant that these nations' governments can be influenced from within, therefore hinting at a strategic rather than economic choice.

While the general opinion is that China's investment and lending patterns in these nations has been to monopolise strategic resources like copper, cobalt and oil, there is speculation on whether these investments have truly paid off. Given the poor governance environment in the nations where these investments are made, production from mines has been delayed and a decline in international oil prices along with overinflated oil reserve estimates has led to poor returns on investment.

There is therefore an alternative perspective that China has stretched itself thin with both the variety and the volume of its ODI, which is another way of asking at what point strategic investment decisions make less sense than economic ones.

Irrespective of the volume of ODI and the returns on it, the US and China are leading investors across the globe today, which puts them in positions of influence. Influence over national policies, decisions taken in companies (by dint of mergers and acquisitions) and over natural resource extraction.

The same cannot be said of India. Not merely because India does not have the financial wherewithal to approach, let alone match US and Chinese levels of ODI, but also because India's overall ODI as it stands today is dismal and haphazard. The development assistance that India proffers to most partner nations cannot be counted as ODI as it does not lead to value addition.

Table 1 provides the trends in US, Chinese and Indian ODI according to UNCTAD data. India's ODI volumes are scarcely a fraction of US and Chinese volumes. For India to even conceptualise competing with either country at a global level requires putting its house in order, that is concentration on its own sub-region or immediate neighbourhood.

Here too, India's own data on ODI reflects a sad state of affairs. None of India's immediate neighbours reflect among the top ten destination countries for ODI. India strategically invested in Iran, Iraq, and Israel for good reason, but that vision seems to be missing.

If indeed trade builds economic co-dependence which in turn boosts political stability, India's strategy for ODI must be based on a long-term vision of how and where India would like to wield influence.

South Asia is definitely a priority today, as is the BIMSTEC region. Not only because it is the least economically integrated region in the world, but also because India and especially its newly elected administration have oft-repeated the goal of making India a regional power. India cannot afford to be a regional power at the behest of or while depending on other world powers (US and China included). If India is to consolidate its power in the sub-continent, it must step up its game in its own neighbourhood.

India's categorisation of ODI data is limited to the top ten destination countries, the major sectors and the overall ODI outflows. While Singapore comes in at a consistent second place, Mauritius stands out as a top ODI destination, which hopefully has more significance after the renegotiation of tax treaties between the two countries.

India's unwavering focus on soft diplomacy and development assistance has put it in a quandary. This was apparent in the Maldives debacle in 2017. The island nation had requested financial investment or loans, as well as high-level diplomatic or state visits for a few years. Both requests were constantly ignored. In fact, India had in a gesture of trademark soft diplomacy gifted two Dhruv Advanced Light Helicopters (ALHs) to the Maldives sometime earlier.

However, when India's concern over the Maldives election process came to the fore, the island nation made its displeasure known by returning India's gift[11]. India's track record at managing regime change in its immediate neighbourhood has been disappointing, if not a downright failure. The lack of economic ties with the Maldives, which had been requesting the same, stood out in this case.

More recently, as the US levied sanctions on Iran again, India had to resort to paying with Indian rupees. However, the situation was complicated when sanctions were adjusted to blockade all transport of oil and crude from Iran, and an American aircraft carrier was deployed to the vicinity. India has since had to stop all oil imports from Iran[12].

Indian exports to Iran are also set to suffer. Once rupee payments dry up in the limited exposure UCO Bank account of Iran, exports to the country will stop unless oil imports begin[13]. The latter seems unlikely in the short term, given US sanctions and the unmoving stance of the Trump administration.

Much as India had to succumb to US pressure on Iran, it had to tread carefully with Maldives as it turned to China for the finances it required in its period of crisis. India had no say in either matter, and will continue to have no say in any matter unless it gets its own economic strategy in order.

With careful planning and prioritisation of strategic goals, the newly elected administration could use ODI as an economic and strategic tool to great effect. While India cannot follow either the US or the China models, given a lack of military wherewithal for the former and financial wherewithal for the latter, nothing prevents India from coming up with her own ODI approach and strategy.

India needs to reduce her focus on development assistance and soft diplomacy, and balance it out by working on building economic relationships in the neighbourhood. Countries prefer value addition and the economic fillip provided by FDI inflows, and wherever possible either through the public or private route, India must provide what ODI it can to its partner nations.

Even if the effort is limited in terms of volume of investment and geography covered, it still needs to be carefully targeted to ensure maximum economic and strategic returns.

India's limited assets can still be put to good use if done so with careful consideration. If nothing else, the administration would do well to remember that 'crippling an economy' is apparently more acceptable, for right or wrong reasons, and perhaps even more efficient than destroying a nation. ■

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India at a crossroads

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Slowdown in trade

Looking at the trend in the changes to world export growth since the 1980s, a few stylised facts become quite clear. First is the acceleration in world trade since the inception of World Trade Organization (WTO) in 1995. This acceleration lasted till the world was hit by the trans-Atlantic financial crisis of 2008, which originated from the housing mortgage segment of the USA financial market.

In the context of current turbulent international trade scenario, probably it will not be an exaggeration to say that the 'golden period for international trade' during the period between 1995 and 2008 is over now. And that 'golden period' is now followed by a conflicting time of 'tariff war' – which is threatening to spoil all the positive influences the 'golden period' imparted on the world economy.

After a sharp drop in world export volume in 2009, the growing trend showed what initially looked like a recovery in subsequent years. But, the data since 2010 exhibits a stagnating trend at the same level – as if the volume of world exports has reached a mountain table-top. In fact, world exports once again started declining in 2015 before going up in 2017.

However, the overall volume keeps on showing similar mountain table-top characteristics. This is a distinct sign of slowdown in international trade and business – whichever way one interprets the data.

Growing influence of China

China's growing influence in world trade is quite evident from the lists of top exporters and top importers. While China is the top exporter of the world, the country stands next to the USA as the second largest importer in merchandise goods.

This growing influence of China is one of the implicit reasons behind its ongoing war with the USA. Official reasons may tend to project different reasons for this trade war, but at a broad level it looks like a battle for supremacy in the international business arena.

Historically, if one looks into the volumes and direction of trade in the last thirty years or so the major direction of trade was concentrated towards Northern America and Europe. This tendency started shifting after China's accession in WTO in 2001.

A prolonged debate among the leading developed countries preceded before the accession, but China rapidly but surely kept on making giant strides in international trade, particularly exports. A good export-oriented strategy made Chinese GDP grow in tandem.

According to World Economic Forum data, China's GDP touched $14 trillion mark in 2018. The gap between China, the second biggest economy of the world, and the USA, the biggest economy of the world at $20.4 trillion, narrowed considerably in around 17 years.

The contribution of different regions in world trade volume growth during the period between 2011 and 2017 also confirms this trend. Both in terms of exports and imports, the growth was largely driven by Asia. And in that Asian growth story, China played a significant role.

Age of trade wars

The current trade war started in early March 2018. The USA fired the first salvo, as it raised tariffs on $92 billion worth of imports covering steel and aluminium products, washing machines, solar panels and a range of other products, in which China holds substantial export shares in the USA. Affected countries by this set of tariffs include Brazil, Korea, Argentina, India and the EU (European Union) – apart from China.

The second dimension, unveiled at the end of March, was American President's directive to the United States Trade Representative (USTR) to take all possible actions against China, including using penal tariffs on its exports, for *"harming American intellectual property rights, innovation, or technology development."*[1]

In subsequent developments, the USA has brought in 25 percent tax on a second tranche of goods worth $16 billion by August 2018. These goods include motorcycles, aerials and optical fibres[2]. The measures are part of American president's broader 'America First' approach.

"How India inks new agreements with potential new partners... will decide whether the country will be able to avail exports as one of its near future economic growth drivers"

In a natural reaction, all affected countries retaliated with counter tariffs. The EU announced 'rebalancing measures' targeting 340 American export items valued at $7.2 billion, roughly equal to the amount of its steel and aluminium exports adversely affected by the US tariff.

Canada announced retaliatory tariffs of up to 25 percent on the US imports of steel and aluminium, orange juice, whiskey and other food products – having a value of around 16.6 billion Canadian dollars, which is the value of targeted Canadian steel exports to the USA. Mexico announced similar measures on a number of products, including dairy, horticulture and meat products, 'up to an amount comparable to the damage caused by the US action'[3].

In early April 2018 China decided to retaliate against the USA by imposing tariffs on 128 products, which accounted for $3 billion US exports to China in 2017. China proposed imposition of a 15 percent tariff on the first set of products, including fresh fruits, dried fruits and nuts, wines, modified ethanol, American ginseng, and seamless steel pipes.

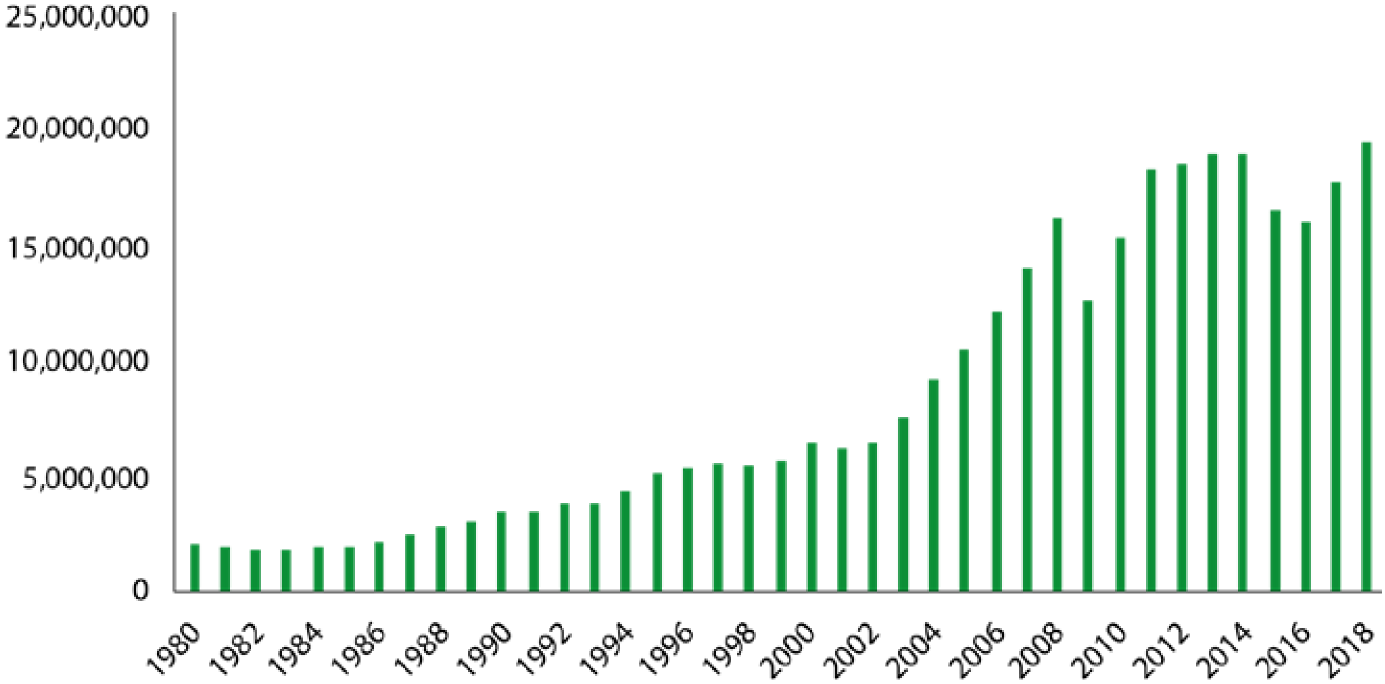
On a second set of products, including pork and its products, and recycled aluminium, a 25 percent tariff imposition was proposed. Continuing the tit-for-tat policy, China further decided to impose additional tariffs of 25 percent on chemical products, medical equipment and energy imported from the USA[4].

The Chinese government on 8 August signalled its willingness to impose retaliatory tariffs on US goods – just ahead of China's top leaders gathering for their annual summit. This is reportedly in retaliation to *"Trump administration's publishing a list of Chinese products that will confront 25 percent duties starting on 23 August 2018"* – raising the value of tariffs to $50 billion, up from the current $34 billion[5].

And this willingness later translated into additional tariffs on $60 billion worth of imports from the USA. The Customs Tariff Commission of the State Council unveiled lists of 5,207 American products which will face additional tariffs of 5 percent to 25 percent. The effect of this set of tariff can be quite significant in the near future[6].

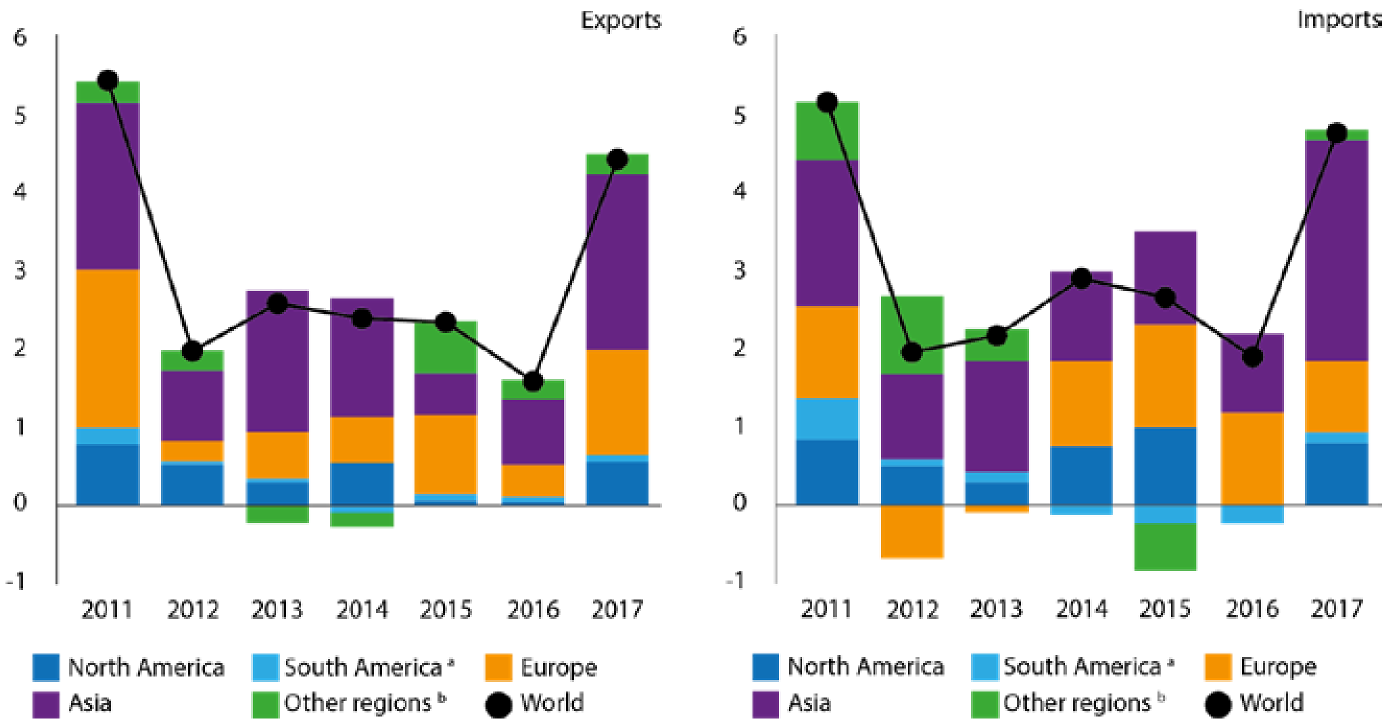
The US government again hit China with a new set of tariffs affecting $200 billion worth of Chinese goods from the middle of the month of September 2018. Unlike the previous set of tariffs which were mainly aimed at capital goods, this will hit thousands of consumer goods made in China, ranging from luggage and electronics to housewares and foods. Imposition

Figure 1. Trend in World Exports since the 1980s (in million US dollars)



Source: www.wto.org

Figure 2. Contributions to World Trade Volume Growth by Region, 2011-2017



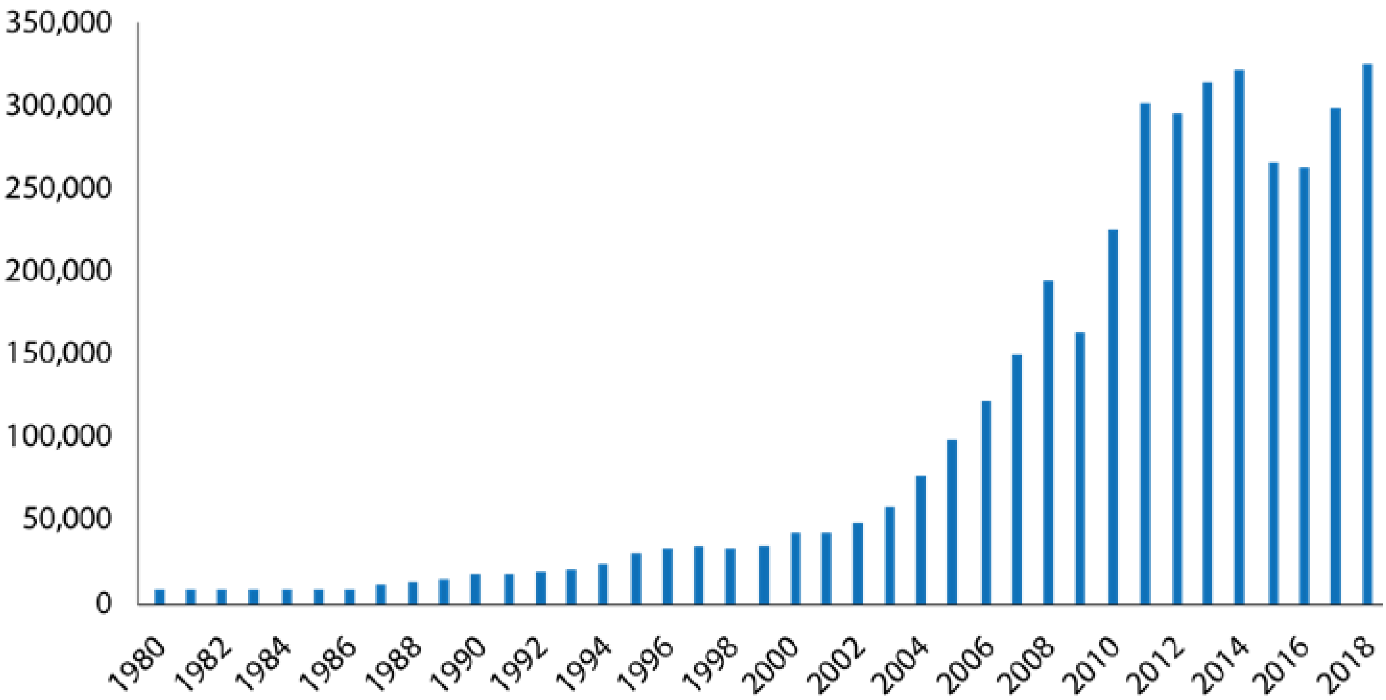
Notes: a) Refers to South and Central America and the Caribbean. b) Other regions comprise Africa, Middle East and the Commonwealth of Independent States (CIS), including associate and former member states.
Source: World Trade Statistical Review 2018, WTO

Table 1. Regional Composition of Trade in 2016

Top importers			Top exporters		
	Import (US$ million)	Share (%)		Export (US$ million)	Share (%)
United States	1,945,159	13.29	China	2,077,109	14.08
China	1,216,714	8.62	United States	1,292,436	8.76
Germany	916,090	6.26	Germany	1,145,973	7.77
United Kingdom	610,647	4.17	Japan	661,678	4.49
Hong Kong China	582,557	3.98	France	488,825	3.31

Source: World Integrated Trade Solution (WITS), World Bank

Figure3. Trend in India's exports since the 1980s (in million US dollars)



Source: www.wto.org

of tariffs will ultimately result into increase in these goods' costs and prices[7].

This action apparently has been undertaken by the USA to address China's indifference to address its 'unfair policies and practices'. China, meanwhile, deeply regretted the decision and conveyed that it has *"no choice but to take counter-measures."*

Much to the relief of many countries of the world, on 1 December 2018 the standstill agreement reached between the USA and China at the sidelines of G-20 meetings had brought a much-needed breather for these two countries and the rest of the world. Both countries agreed not to impose any tariffs for the next 90 days.

However, this temporary truce looked inadequate to resolve the deeper trade problems in their relationship and seemed to be a more short-term political agreement than a substantive step towards resolution of existing problems.

As expected multiple rounds of talks between these two countries failed to end the deadlock, and it is expected to continue in spite of both the countries being parts of coming G-20 meet. In addition, the situation worsened in the interim period as the USA stepped up its efforts to ban Chinese tech company Huawei from doing any business with American companies. American Federal Government's decision to expand official ties with Taiwan is expected to further aggravate the situation.

India caught in the crossfire

India, perhaps unwillingly, also got embroiled into this trade war. The Indian government imposed higher duties on 29 key US imports (applicable from 18 September 2018), in which the value of actual imports stood at $1.5 billion in 2017-18.

This has been ostensibly done to offset the estimated loss faced by India after the US government hiked import duties on steel and aluminium in May this year[8]. Needless to say, if the tariff war goes on then more tariffs are bound to be applied from Indian side on other sets of goods as well.

In a latest related development, in March 2019 the US government decided to withdraw trade concessions given to India under the Generalised System of Preferences (GSP) – a programme that allows duty-free entry for certain products into the US market.

Under GSP, the trade between these two countries grew over the years, and reached $6.2 billion in 2018. No other country's GSP export value has ever exceeded India's exports under GSP in the last two decades cumulatively. Though officially India downplayed the effect of GSP withdrawal, sectors like gems & jewellery and apparel will be adversely affected[9].

Subsequently, the USA indicated postponement of withdrawal of GSP for India till the elections are over[10]. However, immediately after the elections are over American administration indicated that the USA has no intention of going back on the decision to terminate GSP facility – terming the suspension a *"done deal."*[11]

Meanwhile, the trend in Indian exports shows an almost identical pattern to the world trend. After starting to grow healthily since the inception of the WTO and increasing manifold till 2008, the absolute value of Indian exports received a jolt in 2009 in the immediate aftermath of financial crisis.

It then recovered, started growing again for couple of years – before reaching a 'mountain table-top' pattern – similar to the world exports growth. Almost repeating the world exports trend, Indian export volume also went down in 2015 and 2016. Subsequently, it went up in 2017 and 2018 but remains more or less at the same level as in 2014.

Indian exports trend aligning broadly with the world exports trend highlights two important aspects. Firstly, India is closely aligned with the rest of the world and as a result if there is turbulence in the international trade arena then India will also get negatively affected. Secondly, if world trade is unable to recover then India has to contemplate a different strategy if the country wishes to maintain its economic growth momentum.

While most of the recent growth success stories, including China, were pivoted through an export-oriented strategy, similar trajectory option may not be available to India, given the current tariff war.

In that case, like other important economies of the world India will have to find new trade partners, mainly through the route of bilateral and plurilateral agreements. And the country has to find the partners as fast as possible as all significant economies are currently scouting for partners.

A flurry of efforts to chalk out agreements – like TPP (Trans-Pacific Partnership) and RCEP (Regional Comprehensive Economic Partnership) – in the recent past is a clear indication of that desperation to find trade partners.

Eventual failure of the member countries to arrive at a final agreement in both these prospective regional trade agreements (RTAs), on the other hand, shows the immense difficult situation the world trade is currently in – as a result of which finalisation and concretisation of such RTAs have become incredibly difficult task.

India has to reconcile to these new realities of international trade, and inviting BIMSTEC (Bay of Bengal Initiative for Multi-Sectoral Technical and Economic Cooperation) countries' heads in the inauguration ceremony of the freshly elected government is a good start.

How India inks new agreements with potential new partners, particularly in the Asian region, and also the choice of trade partners will decide whether the country will be able to avail exports as one of its near future economic growth drivers. ■

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Contents

HAVANA

500

Portrayed in the works of countless artists and writers, Havana is celebrating the 500th anniversary of its founding

The city of Havana was the seventh village to be founded in Cuba by the Spanish conquerors in the early XVI century, and the third and definitive capital of the island. The city, originally called San Cristobal de La Habana, was founded on November 16th, 1519 under the ceiba tree that still grows now near the El Templete church on Plaza de Armas, and this year it will celebrate its 500th anniversary.

Over the course of a half a millennium since its foundation Havana has undergone significant changes, witnessed countless historical and cultural events of great importance, and was recently named Wonder City of the World. Now, in order to provide the city with the best possible celebration for its 500th anniversary the government and the people are all working on transforming the city and making it even more beautiful than it is now.

The campaign for the city's restoration dedicated to the 500th anniversary of Havana started back in 2017 and was claimed to consist of three phases. The first stage extended up to the 499th anniversary of the city on November 16th, 2018. This stage focused on solving the problems that there were in the city, thus changing the city not only aesthetically, but also improving its infrastructure. Every single citizen has had a chance to participate in this part of the preparations for the anniversary, as the tasks that have been carried out started with such small things as cleaning the city, taking care of public parks and installation of LED street lighting.

Other changes include 4,500 renovation works on pharmacies, hospitals and doctors' offices; educational centres, sports centres, commerce venues and gastronomy, including restaurants, butcher shops, fish markets, bakeries and the famous Cuban bodegas. In addition, the rehabilitation of some famous landmarks of the city, such as the lighthouse of the Morro Fortress and the Capitolio building also form part of the program. The authorities state that these works are not going to stop after the campaign for Havana's 500th anniversary ends, and represent only a small part of all the upcoming projects intended to make a better Havana for its residents.

The second stage of the program is the one the city is currently in. It will last for 365 days since the day of Havana's 499th anniversary on November 16th, 2018, to the same date in 2019, when the actual 500th anniversary celebrations will take place. The projects for this period include the building of a chain of seven new luxury hotels, some of them sponsored by foreign investors, and a 42-store skyscraper in the Vedado area, which apparently is going to tower over the current tallest buildings of the city, such as the FOCSA building.

Besides, the government has confirmed that before the day of the anniversary, several establishments that have not been functioning for many years will be reopened. These include the Cuatro Caminos market, now transformed into a modern shopping center, and the Central Railway Station, among other museums and historical spots.

The citizens of Havana are also anticipating a new bicycle system, which is expected to cover all over the city, and a new housing program intended to improve the dwellings of hundreds of Cubans. Lastly another stage of the anniversary campaign is said to start on November 16th, 2019, but still has no ending date. In this stage, the changes that the city has undergone will continue to occur, showing that the works for the improvement of Havana are not limited by its anniversary date, but are supposed to continue constantly, and with the help of all the Cubans, not only the residents of the capital.

The half millennium anniversary of Havana is also seen by the government as an opportunity to promote the island as a tourist destination. Therefore many festivals and other events have been arranged to take place in 2019.

Some other cultural events have to do with music: in order to celebrate the anniversary, the Cuban Institute of Music prepared concerts that already take place the second, third, and fourth Saturdays of every month. The most popular music groups of the country will take part in these performances, and they will continue for many months ahead up to November 2019. The closer to the date of the anniversary the more parades, live concerts and theatre performances honouring the history of Havana are going to take place in the capital of the country.

Despite all the recent changes and innovations that have taken place in the city during the campaign for Havana's anniversary, the Cubans do not forget their traditions. One of the most famous traditions of the island is related to the way the people of Havana celebrate their city's date of foundation. Every November 15th at night both locals and tourists start gathering on Plaza de Armas, in front of El Templete, where the city was founded in 1519. Then, at midnight, small groups of them start approaching the old Ceiba tree. The tradition is to circle the tree three times, throw some coins to its roots, and make a wish. It is possible to perform the ritual on other days as well, not only at dawn of November 16th, but they say that if you do it on the day of the city's foundation, then you will not only be granted your wish but also have good luck during the whole upcoming year. Following the tradition on such a significant day as the city's 500th anniversary has a

special importance for all the people who love Havana, and is an amazing way to take part in the celebrations for Havana's half a millennium.

One of the great attractions of this city is Old Havana (Habana Vieja), its old town. Woven by a labyrinth of delightful alleys, this neighbourhood was declared a World Heritage Site by UNESCO in 1982. One of its most important corners is Plaza de Armas, headquarters of the Governor's Palace (Palacio de los Capitanes Generales) and the Morro Castle. In addition to monuments that leave the newcomer speechless, you will also find handicraft markets.

Do not miss the unforgettable Malecón, a unique promenade with a soundtrack played by street musicians. In any case, the truth is that any space in Havana is perfect to enjoy Caribbean beats. You can also visit the many salsa or jazz clubs, where you can delight yourself with the best music while sipping on a glass of rum, a daiquiri or a mojito.

Visit the neighbourhood of Havana Centro too, with its iconic Paseo del Prado dominated by the unmistakable silhouette of the National Capitol of Havana (1929). The same could be said about Revolution Square (Plaza de la Revolución), where there is a second-hand book market.

Another place that deserves your attention is the neighbourhood of El Vedado, created in the 19th century and with landmarks such as the Christopher Columbus Cemetery and the famous Rampa (or 23rd street), which is the centre of Havana's nightlife. Right next to it is Playa-Miramar, a residential area dotted with mansions and estates. There are also marinas and the exclusive Fifth Avenue.

It is also convenient to mention the beaches of the East, where you will find the most famous seafood restaurants in Cuba, Las Terrazas, which feature in two novels by Ernest Hemingway.

If you are passionate about cultural tourism, get ready to fully enjoy your trip to Havana. There you will find buildings with centuries of history, as well as a first-class museum offer. Surrender to the Museum of the City, in the Governor's Palace, and to the National Museum of Fine Arts. Inaugurated in 1918 in the heart of the Cuban capital, this institution exhibits important samples of Cuban, Ibero-American and international art.

An ideal option to visit Old Havana is to ride on a horse-drawn carriage, on a route that starts right in front of the Capitol. Another great idea is to rent an almendrón, the traditional vehicles of American origin that managed to survive the Revolution.

Would you like to treat yourself to a special evening? If so, be sure to discover the Gran Teatro de La Habana, home to the National Ballet of Cuba and a few steps from the Capitol, and the famous restaurant La Floridita. Another reference of the Antillean scenic arts is the Amadeo Roldán Theater, where you can attend dance or music shows, played by the National Orchestra of Cuba.

If you're tempted to go shopping in Havana, there's nothing better than taking a walk down Empedrado Street. Do not hesitate to wander around its bustling craft stalls. This same artery also accommodates another of the great claims of

> “… discover the history and rhythms of one of the Caribbean’s most beautiful cities

Havana: La Bodeguita del Medio, an establishment where you can savour the aroma of an authentic Havana cigar.

Of course, we could not forget the pleasures offered by Cuban cuisine. All those who wish to taste typical local dishes, such as ropa vieja or fried beef, should book a table in the best restaurants in Havana. One of them is Casa Miglis, whose stoves are dedicated to Swedish-Cuban gastronomy.

We could not forget to mention the beaches of Havana, that go from the Malecón to the sandy beaches of the East. All of them are ideal to sunbathe, swim or contemplate the most beautiful sunsets in Cuba. Among the most beautiful beaches of Cuba and its surroundings, it is worth mentioning Guanabo, Santa María del Mar, Mar Azul and Jibacoa, a natural sandy area that unfolds in a calm and peaceful bay, halfway between Havana and Varadero. And that’s not all: it is also an ideal setting for diving in Cuba, exploring the secrets of a beautiful barrier reef.

So, go on and celebrate!

Is the only way up?

Airspace development is a growing phenomenon as a practical solution to meeting the growing demand for new homes. Paul Olliff, Legal Director in the Real Estates Team at Ashfords LLP, considers the legal issues in the United Kingdom

In February London Mayor Sadiq Khan agreed a loan to Apex Airspace which will see 500 new homes built above existing ones or over stations, offices, shops and car parks, half of which will be affordable. This is the first time her has supported an 'airspace developer'. Apex builds the new homes in factories and, when they are 95% complete, installs them on roofs, minimising disruption for those in the properties below.

But as with all emerging technologies, there are plenty of both legal and practical considerations to be taken into account before you start reaching for the stars.

The first – and most obvious – question to ask is: what's already on top of the building and any challenges this might present. Lift housing is capable of shifting and air conditioning units may need re-routing.

Other initial investigations should take into account the structural integrity of the building, any existing issues with neighbouring properties, party walls and main services into the building. Obviously if you are adding extra footfall into the building you need to establish that existing main services have capacity and are located in such a way that they can actually serve the new development. For almost everything there is a solution, but usually at a cost.

If there are residential tenants, do they have a first right of refusal to the development under the 1987 Landlord and Tenant Act – which means they must be offered the airspace lease on the same terms as those being offered to the developer? If first right of refusal isn't given, you run the risk of criminal sanctions as well as fines.

The structure of the legal agreement also needs approaching carefully, depending on ownership and the parties involved. These will range from an Options Agreement with the lease incorporating development rights through to Conditional Contract and purchasing the freehold of the building.

Option agreements usually allow more flexibility for the developer. If it has leaseholder development rights, careful consideration needs to be given to both parties. The landlord will want to ensure the fabric, structure, foundations and rights of other tenants are not interfered with, while the developer will want to ensure it can actually get on with the development efficiently and without too much hassle.

Leasehold development rights should also take into account ancillary rights such as scaffolding, parking spaces and access to retained land. The landowner will likely want an indemnity clause in case anything goes wrong.

In summary, while airspace development is undoubtedly a positive way forward and should be welcomed by local authorities, there are a whole range of legal issues that could get in the way in the initial stages. So, make sure you strap on your legal parachute before you go up into the clouds.

Connecting the globe

"We want to do engineering, not science."

A new aerospace company has entered the race to provide supersonic commercial air travel. Hermeus, a US-based company, has announced plans to develop an aircraft that will travel at speeds of up to Mach 5. Such an aircraft would cut travel time from New York to Paris from more than 7 hours to 90 minutes.

Hermeus has the goal of massively reduced flight times and increased safety for long haul, business class air travel. The aircraft will be capable of a range of 4,600 miles at a cruising speed of 3,300 miles per hour. The product's design enables it to operate with minimal changes to current aviation infrastructure.

The announcement follows three years after another company, Boom Supersonic, declared its own intentions to develop faster-than-sound aircraft. The Boom Overture airliner is envisioned to travel at Mach 2.2, which is slightly faster than the Concorde traveled.

Boom Supersonic have said its planes could be ready for commercial service in the mid-2020s, and they added that Virgin Group and Japan Airlines have preordered a combined 30 airplanes.

Skyler Shuford, the COO of Hermeus, *"We aren't getting into anything too miraculous,"* Shuford said. *"We want to do engineering, not science."* The aircraft Hermeus seeks to

develop will travel considerably faster, and it will rely mostly on existing technology and materials.

Over the next five years, the company plans to work toward a demonstrator vehicle that travels at Mach 5, before developing aircraft for commercial service eight to 10 years from now. Such a fast plane might diminish appetites for suborbital, point-to-point travel later this century.

The Hermeus founders consist of alumni from SpaceX and Blue Origin. Additionally, all four worked together at Generation Orbit, where AJ Piplica served as CEO and Glenn Case, Mike Smayda, and Skyler Shuford served as technical directors. While there, they led the development of the X-60A, a hypersonic rocket-plane and the Air Force's newest X-Plane.

Shuford credited the resurgence of interest in faster commercial air travel to two factors. The rise of companies like SpaceX, Blue Origin, Rocket Lab, and Relativity have convinced investors that aerospace can provide long-term financial returns. And the technology today is more mature, and there is better availability of needed materials such as titanium.

The vision of the company is to connect the world's cities significantly faster than ever before, and the first-class team formed at Hermeus is one that can achieve this big goal.

THE PERFECT STAY

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FIRST RAYS OF SUNSHINE AT
THESE EUROPEAN GEMS

FIND OUT WHERE


MAJESTIC BARRIÈRE

Set down your suitcases in the splendid décor of the Hotel Le Majestic's lobby. Be overcome with a sensation of well-being. The Mediterranean Sea embraces the terraces of the rooms. Share delightful family moments and let the children experience their own adventures.

Enjoy sport and lazing on the private beach, as well as the Projection room and Clefs d'Or Concierge, before relaxing at the Spa Diane Barrière. Inject some magic into your evenings and experience a star-studded stay. Enjoy a panoramic view of the Mediterranean with a refined setting, peace and quiet and top-end services. Feel like you own your own pied-à-terre on the Croisette in one of the 350 Rooms and Suites of Hotel Le Majestic. Become part of the legend.

Taste gourmet cuisine and sophisticated snacks prepared to perfection of Les Tables Barrière at Hotel Le Majestic. Enjoy lounge, luxury and trendy ambiances with exceptional cellars for wine tasting in moderation. An exquisite location, bathed in Mediterranean sunshine and set within Hotel Le Majestic, La Petite Maison de Nicole excels in making everything from red mullet to shellfish even more delicious.

A stone's throw from the Palais des Festivals, Le Fouquet's Cannes continues the brasserie style of its prestigious Parisian relation. On the menu created by Pierre Gagnaire, brasserie classics are revisited, attracting well-known gourmets and stars. Savour the luxury Parisian brasserie atmosphere, Croisette-style. Savour each delicacy under the benevolent gaze of the famous faces in the black and white photographs that decorate the walls.

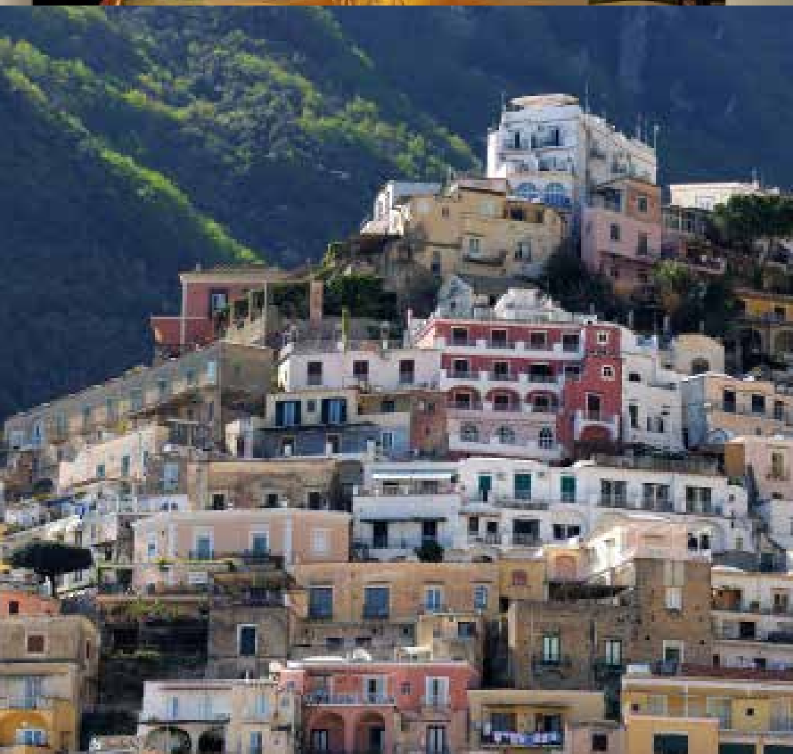
Step on to the largest jetty on the Croisette or rub shoulders with the film-making world in an intimate setting. Enjoy a fabulous sensory experience at the Spa and browse the most famous boutiques around. Hotel Le Majestic is at your service.

Presenting green palm trees and red parasols, away from the public gaze, the vast outdoor pool at Hotel Le Majestic is the perfect place to unwind. Heated to 27°C all year long, you can swim lengths in any season. Treat yourself to a dynamic start to the morning or a relaxing dip in the daytime. In the privacy of the pool, slide delightedly into the ideally warmed water. Take in the tranquillity of your surroundings, sitting comfortably in a lounger. Surrounded by a beautiful terrace, the outdoor pool at Hotel Le Majestic provides an enjoyable, refreshing break.

Affiliated with the Leading Hotels of the World, Le Majestic passionately upholds the highest quality service and the art of hospitality. A dedicated Butler, Clefs d'Or Concierge, and personalised welcome gifts... The mark of leading establishments.

Hôtel Barrière Le Majestic Cannes, a winning combination of tradition, modernity and excellence on La Croisette.






Le Sirenuse is a wonderful place from which to enjoy the simple pleasures of Positano and the spectacular Amalfi Coast, an remains a well-tailored pocket of extraordinary atmosphere and service.

John Steinbeck, who visited in 1953, wrote *"Positano bites deep. It is a dream place that isn't quite real when you are there and becomes beckoningly real after you have gone."*

Le Sirenuse opened in 1951, when the Sersale family turned their summer house in Positano into a charming hotel, overlooking the bay of Positano. Today the 58-room resort is considered one of Italy's leading seaside luxury hotels, though it still retains the intimate, cultured atmosphere of a private home. Le Sirenuse remains a cherished family concern.

The rooms and terraces, 70 metres above the sea, are an unbeatable oasis of peace and silence, with a breathtaking view. Almost all rooms, suites and junior suites look out over the bay of Positano. Most have a private terrace or balcony and all have white-washed walls, vaulted ceilings and hand-made tiles on the floors.

Le Sirenuse has won numerable awards and is internationally renowned for the quality of its services. 2000 saw the introduction of the Le Sirenue Spa, designed by Gae Aulenti. In 2001 The Champagne & Oyster Bar was born, open only during the summer months as a place to relax and listen to music under the stars. 2003 saw the acquisition of a 1972 Riva Acquarama, a boat whose classic lines reflect the elegant taste of the Sersale family.

The light Mediterranean cuisine of the Michelin-starred La Sponda restaurant is based on fresh local ingredients and inspired by the great culinary traditions of Naples and the Amalfi Coast. Infused by the leisured elegance of Positano's dolce vita, La Sponda is illuminated, in the evening, by four hundred candles that create an unforgettable atmosphere.

The Champagne & Oyster Bar enjoys breathtaking views over Positano. Sumptuously furnished and candlelit, it is open in the evenings from May to mid-October, weather permitting. Should you decide to stay and dine here, a mouthwatering menu offers grilled and fried Mediterranean specialties, pasta and rice dishes and other delicacies.

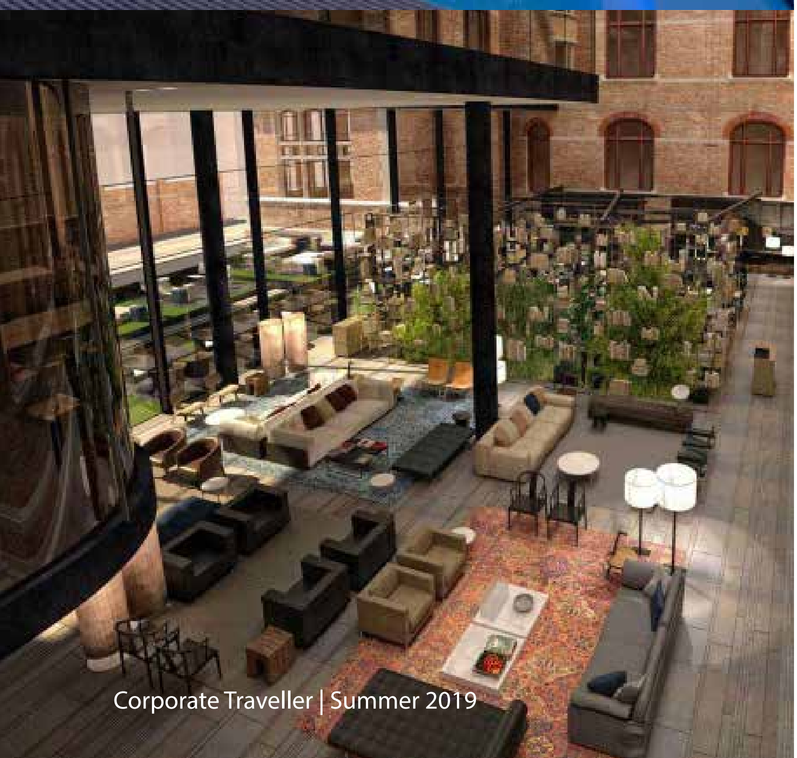
The latest addition to Le Sirenuse, Franco's Bar, is a stylish, panoramic al fresco terrace that tips its hat to a golden age of fine cocktails and quality champagne. The bar's fresh and striking decor and contemporary artworks, commissioned from a raft of local and international talent, pay homage to the late Franco Sersale, whose careful design curation is still evident in every corner of the hotel.

Positano is at the centre of a very important archaeological and historic area, with Pompei, Paestum, Ravello, and Amalfi all nearby.

It is easy to see why this boutique hotel is popular amongst the rich and famous.





The Conservatorium is a five-star hotel in the heart of Amsterdam's Museum Square district is often hailed as the Netherlands' number one luxury hotel. The Conservatorium is an architectural masterpiece that combines a landmark heritage building with graceful, contemporary design.

In this vibrant and elegant setting, the city's crown jewels – the Van Gogh Museum, Concertgebouw, Rijksmuseum, Vondelpark and Amsterdam's most indulgent shopping – are literally at your doorstep. For culture and for business, it's a location like no other.

One of the most beautifully designed hotels in Amsterdam, the Conservatorium is on the site formerly occupied by the city's Sweelinck Music Conservatorium.

This remarkable property brings its renowned Art Nouveau interiors alive with elegant contemporary design and furnishings. Italian architect Piero Lissoni is the talent and vision behind the building's transformation and new life as an elite hotel. His signature style of modernist and contemporary chic is found throughout the property.

It is an exceptional hotel, home to the smart city cocktail place, Tunes Bar with its designer Lissoni transparent bar, fine-dining at Taiko, by award-winning chef Schilo Van Coevorden; informal all-day dining at Conservatorium's Brasserie and afternoon tea in the lounge. There's the Akasha Holistic Wellbeing Centre too – with spa, pool and fitness suite too.

The Conservatorium has some of the finest suites in Amsterdam – truly the height of luxury. Venues in Amsterdam don't get much more inspiring than those at the Conservatorium.

Whether it's an annual meeting or a business launch, a banquet or an auction, every gathering in the world's most creative capital deserves a venue that's equally imaginative.

This means not just state-of-the-art technology, but an environment that is itself a work of art. While many hotels hide their meeting rooms, the Conservatorium gave theirs pride of place, designing a special events tower, right in the landmark lobby.

So whether you're holding a concert for ten, or training for a hundred, it's an inspired choice for any event, in the centre of the Conservatorium, in the centre of Amsterdam.






Located in Paseo de Gracia, in the heart of Barcelona, the Casa Fuster was built in 1908 by D. Lluis Domènech i Montaner and totally restored in 2004 and transformed into a contemporary boutique hotel. It was a gift from D. Mariano Fuster to his beloved wife with the underlying intention to make the city of Barcelona more beautiful.

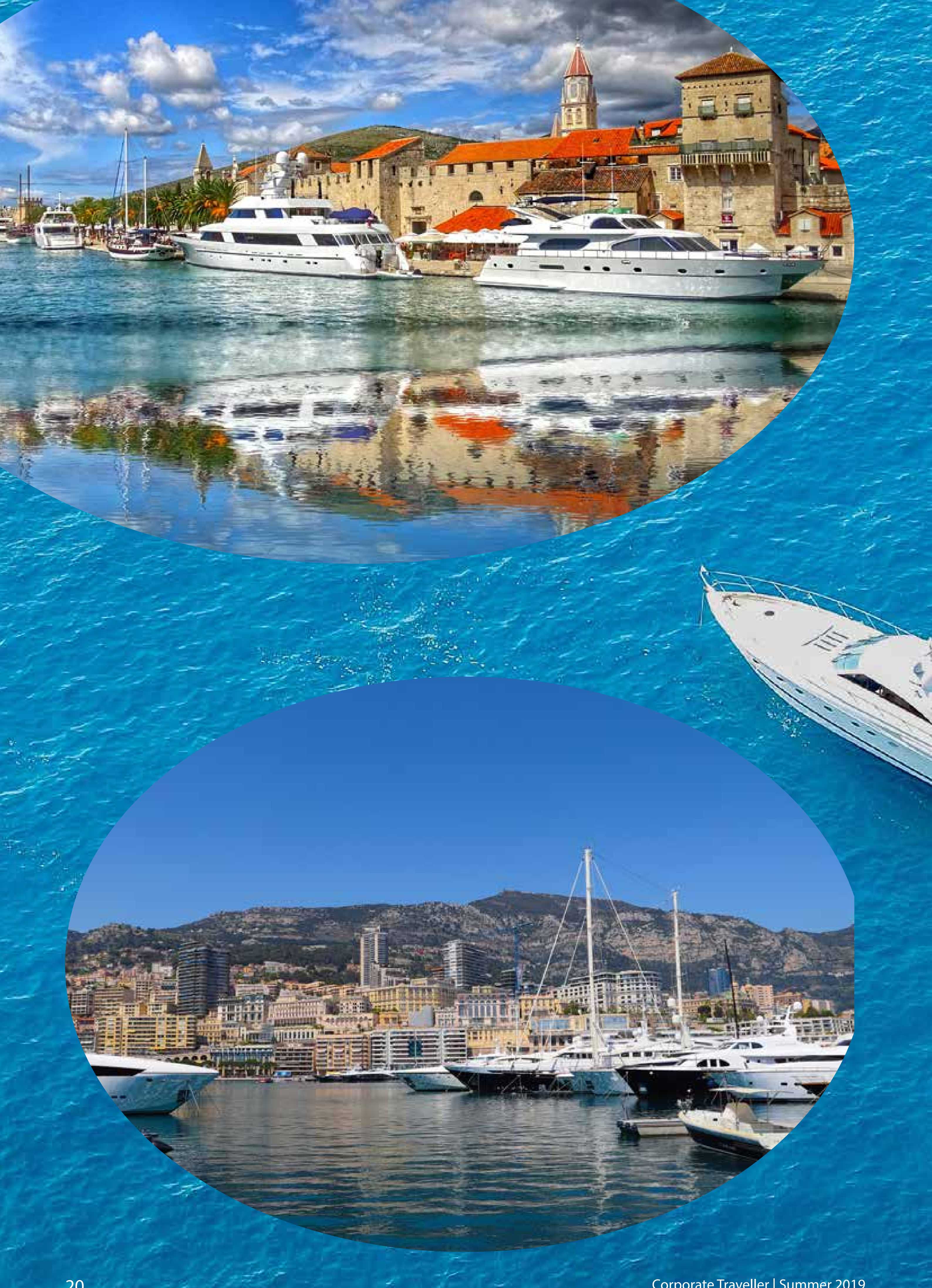
Lluís Domènech i Montaner Modernist works have been declared World Heritage Sites by UNESCO. The Casa Fuster can be defined as the most emblematic designer hotel, quite simply because it is.

Decorated with Art Nouveau–inspired furnishings, the ninety-six guest rooms pay homage to the building's original grandeur. Large floor-to-ceiling windows and cherry-wood finishes, as well as en-suite bathrooms with speciality name-brand amenities and plush bath robes are standard features.

The lobby, the alfresco terrace and the jazz club, Café Vienés, recall the heady intellectual atmosphere of early 20th century Barcelona. The hotel's in-house Mediterranean restaurant, Galaxo, offers guests a fine dining experience, while Café Vienés is a vibrant space for light bites and drinks. Jazz Club features live music.

The Casa Fuster Hotel has several spaces with personality where food, culture and entertainment merge to create a unique experience. Its excellent and unique architecture creates a unique atmosphere ideal for all kinds of events and celebrations.

Sophistication, elegance and style describe this iconic hotel set in a modern Catalan building in the heart of Barcelona. Come and visit this magical place, which is one of the icons of Catalan Art Nouveau and the very first 5-star-luxury-landmark hotel in Barcelona.



MONACO

From superyachts to tailor-made luxury cars at the 2019 MYS

The tiny principality Monaco is larger than life when it comes to luxury. Playground of the Riviera, Monaco is never more vibrant than during the annual Monaco Yacht Show. Whilst the Monaco Yacht Show has the worldwide recognition of displaying the most jaw-dropping superyachts every year since 1991, the event also dedicates an exhibition space to tailor-made luxury cars, customised according to the desires and personal tastes of their owners as with a superyacht!

Visitors, owners and lovers of superyachts and fine machinery will be able to admire a brand-new range of luxury vehicles on display on the Car Deck of the Monaco Yacht Show. Since 2016, well-thought-of automakers and niche brands of tailor-made and customised cars and motorbikes meet up at the Car Deck exhibition of Monaco Yacht Show.

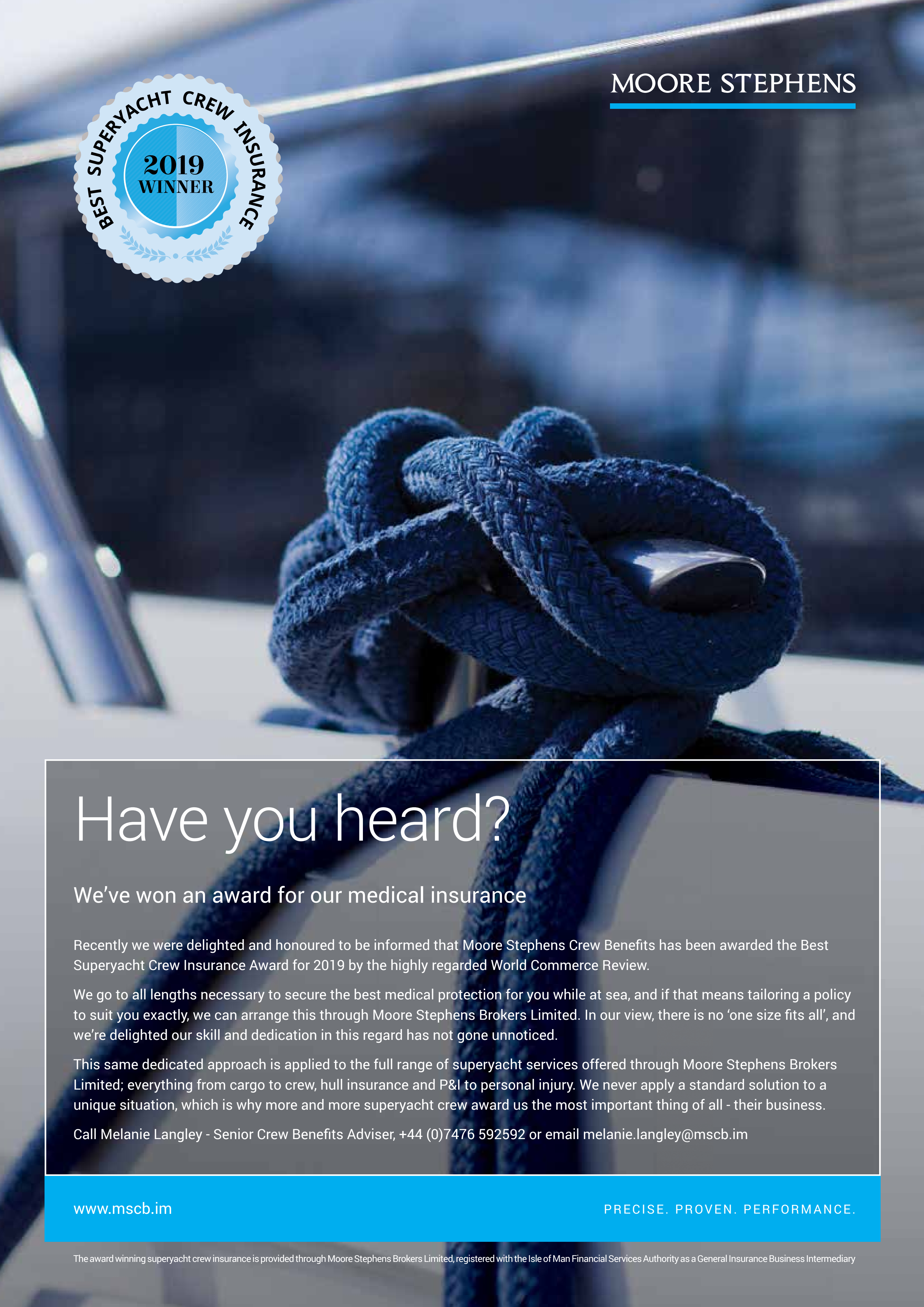
Quai Antoine Ier again hosts the exhibition of a selection of luxury tenders and water toys for having fun on… and under water! The Tenders & Toys area showcases a wide range of innovative, eco-friendly and luxury items in addition to the historical tender exhibition on Quai Jarlan.

Corporate Traveller is pleased to announce that RA Shaw Architecture has been awarded Outstanding Contribution to Luxury Property 2019.

The Corporate Traveller awards celebrate achievement, innovation and excellence across several fields of endeavour. Our award programs are tailored to provide a comprehensive analysis of the very best in each market.

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

The selection panel took into account product innovation, on-going customer support and best practice criteria as well as a continuing commitment to deploying the best possible solutions for the benefit of their clients.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Next-generation technologies and the future of trade

Susan Lund is a Partner at McKinsey & Company, and Jacques Bughin is a Senior partner at McKinsey and Director of the McKinsey Global Institute

The history of trade reflects the ongoing march of technological innovation. This column argues that despite today's increased trade tensions, rising nationalism, and slowdown in global goods trade, globalisation is not in retreat. Instead, it is entering a new chapter that is being driven by flows of information and data, as well as technological changes that are reshaping industry value chains.

Many forces shape trade flows, including trade policies, changes in the nature and location of consumer demand, and differentials in the costs of labour and other inputs across geographies. Another important, but under-appreciated, driver of trade flows is technology.

The history of trade reflects the ongoing march of new technological innovations. After the Second Industrial Revolution, for example, the introduction of steamships and railroads changed the economics of trading across national borders. Likewise, the digital revolution of the 1990s and early 2000s enabled companies to interact with far-flung suppliers and customers (Baldwin 2016).

Global value chains existed before the internet, but the internet further enabled fragmentation and offshoring of production by vastly improving coordination and communication costs. As China and other developing countries began participating in these production networks of specialised suppliers and assembly plants, trade flows soared and stretched around the world.

Today the next generation of technologies will reshape trade flows and global value chains again. But unlike the previous ICT revolution, these innovations will have a more varied and complex effect on trade in the years ahead. Some advances, like digital platforms, blockchain, and the Internet of Things, will continue to reduce transaction and logistics costs, thereby fuelling trade (WTO 2018). But other technologies may reduce trade flows by changing the economics and location of production, and transforming the actual content of what is bought and sold across borders.

The net impact of the entire wave of new technologies is unclear, but in plausible future scenarios they could dampen goods trade while further boosting flows of services and data. Evidence of technology increasing data and service trade has been found in previous research (eg. Bughin and Lund 2017, Freund and Weinhold 2000), but the literature to date has not provided evidence at a detailed level of value chains.

For companies and countries alike, these trends will benefit some companies, but will also create losers. A growing imperative for all is to focus on digital skills and infrastructure, service capabilities, and innovation. In this column we consider some of the possible effects and estimate the magnitude of potential change.

Some technologies will improve trade logistics and transaction costs, boosting goods trade

Companies trading across borders often lose time and money to customs processing or delays in international shipments and payments. But a number of new technologies can ease these frictions.

Digital platforms, for instance, connect buyers and sellers directly, lowering the costs of search and coordination (McAfee and Brynjolfsson 2017). They have created seamless global marketplaces in areas such as e-commerce, payments, travel, learning, and labour services – and there is room for much more growth. Alibaba's AliResearch projects that cross-border B2C e-commerce sales alone will reach approximately $1 trillion by 2020. B2B e-commerce could be five or six times as that figure.

While some of those transactions may substitute for traditional offline trade flows, e-commerce could still spur some $1.3 trillion to $2.1 trillion in incremental trade by 2030, boosting trade in manufactured goods by 6–10%. This will include many small businesses that can directly reach customers in other countries. eBay, Alibaba, Amazon, Jumia and other online marketplaces are enabling the rise of 'micro-multinationals' – today, startups tap global talent, finance, and consumers from day one (McKinsey Global Institute 2016).

Logistics technologies also continue to improve. The Internet of Things can track shipments in real time, while AI can route trucks based on current road conditions. Automated document processing can speed goods through customs. Some companies are developing fleets of self-driving trucks, and a number of ports worldwide have introduced automated

“Despite the increased trade tensions, rise of nationalism, and well-documented slowdown in global goods trade, globalisation is not in retreat”

cranes and guided vehicles that can unload, stack, and reload containers faster and with fewer errors. Blockchain has potential for tracking shipments and triggering faster automated payments, although it will be some time before its scalability and success in trade can be determined.

We calculate that this group of technologies could reduce shipping and customs processing times by 16–28%. The academic literature finds that a 1% reduction in trade costs can result in a 0.4% increase in trade flows (Djankov *et al*. 2010, Hausman *et al*. 2013).

Based on these figures, we estimate that these technologies together could potentially boost overall trade by 6–11% by 2030 compared to the baseline, worth some $4.7 trillion in annual trade. Looking at each country’s average processing times and bilateral flows, it appears that Bangladesh, India, and Indonesia are among the countries that could make the biggest gains.

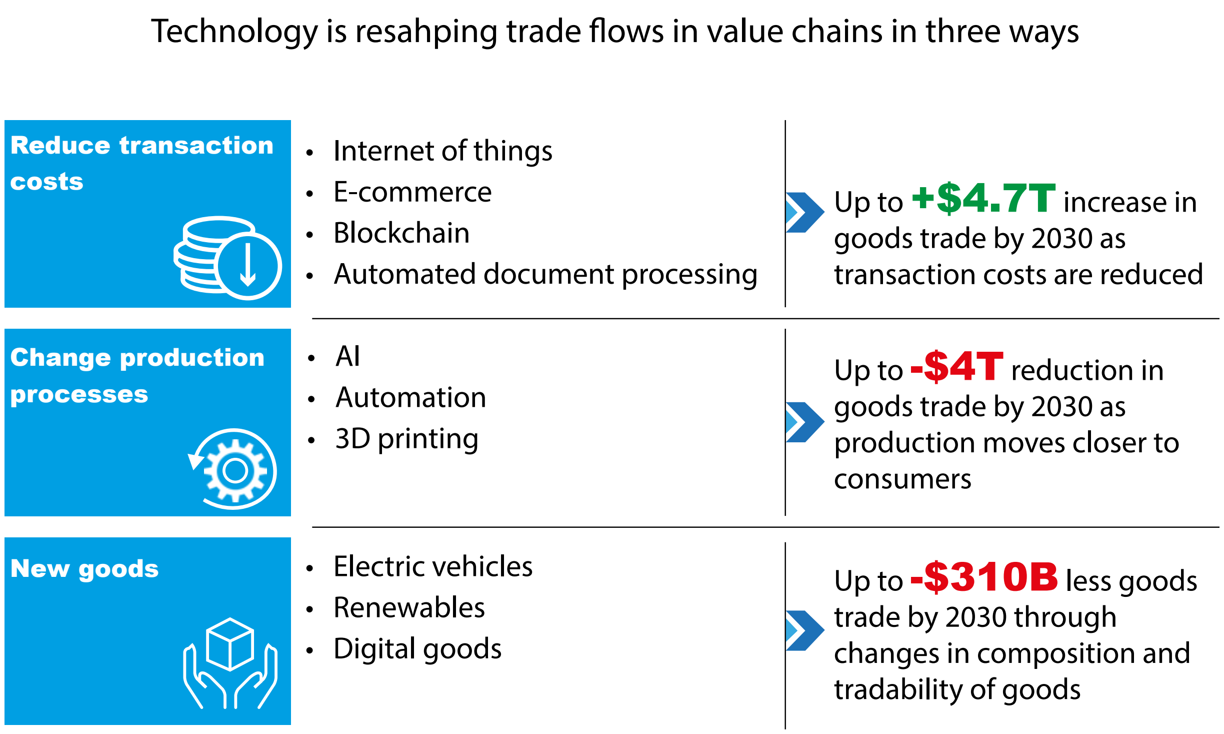
Automation and additive manufacturing change production processes and the relative importance of inputs, and may reduce goods trade

The diffusion of automation and artificial intelligence technologies suggests that multiple industries will experience a profound shift in the importance of capital versus labour (McKinsey Global Institute 2017). The growing adoption of automation and AI in manufacturing makes labour costs less important and other factors – such as proximity to consumer markets, access to resources, workforce skills, and infrastructure quality – more important.

As a result, we can already see a trend towards moving production closer to end consumer markets, such as the US and the EU. Today, only 18% of goods trade is from a low-wage to a high-wage country, and that share is shrinking in the most labour-intensive industries, such as textiles and apparel. Both Adidas and Nike, for instance, have designed new lines of athletic shoes that make them amenable to full automation of the production process – and they have opened those new factories in Germany and the US (Adidas) and Mexico (Nike).

In addition to affecting the trade in manufactured goods, automation will influence trade in services. Many call centre and help desk services are already ‘staffed’ by virtual agents, which are adding natural language processing abilities and beginning to handle a wider range of tasks. This is leading some companies to automate customer support and back-office services rather than offshoring them. This trend could reduce the $160 billion global market for business process outsourcing, now one of the most heavily traded service sectors.

Figure 1. The effect of technology on trade flows in value chains



Source: McKinsey Global Institute (2019)

Additive manufacturing (3D printing) could also influence future trade flows. Most experts believe it will not replace mass production over the next decade; its cost, speed, and quality are still limitations.

But it is gaining traction for prototypes, replacement parts, toys, shoes, and medical devices. Since 3D-printed goods can be produced near the point of use, they would eliminate the need for international shipping (although they may increase data flows as design files are transmitted).

While this could reduce trade in some individual products substantially, the drop is unlikely to amount to more than a few percentage points across all manufactured goods by 2030. In some cases, additive manufacturing could even spur trade by enabling customisation.

Overall, we estimate that automation, AI, and additive manufacturing could collectively reduce global goods trade by up to 10% by 2030, as compared to the baseline, or $4 trillion in annual trade flows. However, this reflects only the direct impact of these technologies on enabling production closer to end consumers in advanced economies.

It is also possible that these technologies could lead to nearshoring and regionalisation of trade instead of reshoring in advanced economies, impacting both modes of transportation (eg. overland and air cargo replacing container shipping) and trade corridors.

We already see that intra-regional trade has grown faster than inter-regional trade since 2013, a trend seen worldwide but particularly notable as regional value chains are developed in Asia and in the EU28 (McKinsey Global Institute 2019).

New technologies may also have indirect – and unexpected – impacts on trade flows

As technology transforms some products and services, it will also alter the content and volume of trade flows. Some of these may have unexpected consequences for trade flows.

Renewable forms of energy, such as solar and wind, are less tradable than carbon-based fuels such as coal and LNG. The ongoing decarbonisation of economies and shift to renewable energy may therefore reduce trade in energy.

As another example of indirect impacts on trade, growing adoption of electric vehicles could reduce trade in auto parts. McKinsey estimates that electric vehicles will make up some 17% of total car sales globally by 2030 (up from 1% in 2017), but as their drivetrains have only about 15% as many moving parts as internal combustion engines, this trend could reduce the hundreds of billions of annual trade in vehicle parts by up to 10% while also dampening oil imports (over half of which are used in transportation).

The shift from physical to digital flows that started years ago with individual movies, albums, and games is now evolving once again as companies such as Netflix, Tencent Video, and Spotify popularise streaming and subscription models. Streaming now accounts for nearly 40% of global recorded music revenues.

Cloud computing uses a similar pay-as-you-go or subscription model for storage and software, freeing users from making heavy capital investments in their own IT infrastructure. The shift from physical goods to streaming, leasing, and pay-as-you go services is only in its infancy. This will affect not only the composition of trade – from physical goods to services – but likely also the relative value of services.

The rising importance of services

The net impact of these countervailing forces on global trade flows is uncertain. But in plausible scenarios, it is quite possible that the next impact could be to further accelerate the shift in global trade flows from goods to services. This is consistent

with other research on the causes of the slowdown in trade (Timmer *et al*. 2016).

Already today, services trade is growing 60% faster than goods trade overall. Some types of services, such as IT services, telecom, business services, and IP royalties, are growing 2-3 times as fast as goods trade.

Moreover, 30% of the value of traded goods comes from the embedded services in their production, such as engineering and design, financial services, distribution, and marketing (Miroudot and Cadestin 2017). Counted in value-added terms, services already account for at least 45% of global trade flows.

5G wireless networks, virtual reality, and augmented reality may all give a boost to services in the future. The advent of ultra-fast 5G wireless networks opens new possibilities for delivering services globally. Remote surgery, for example, may become more viable as networks transmit sharp images without any delays and robots respond more precisely to remote manipulation. In industrial plants, 5G can support augmented and virtual reality-based maintenance from remote locations, creating new service and data flows.

Concluding remarks

Despite the increased trade tensions, rise of nationalism, and well-documented slowdown in global goods trade, globalisation is not in retreat (Lund and Tyson 2018).

Rather it is entering a new chapter that is being driven by the flows of information and data, as well as technological changes reshaping industry value chains. ■

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Cyber resilience as a global public good

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The financial system is changing fast. Digitalisation has led to improvements in access to services, as well as in their quality and convenience. In the field of payments, services are increasingly instant, 24/7 and globally available. Non-bank participants, meanwhile, are disrupting traditional intermediation. Artificial intelligence and machine learning are just two of the innovations promising to revolutionise financial services.

But revolution and evolution typically come with new risks, while not eliminating all the old ones. Criminals, for example, have always exploited technology. In 1973, the chief teller at a branch of the Union Dime Savings Bank in New York used the recently introduced computers to steal 1.5 million dollars from hundreds of accounts – the largest recorded theft from a savings bank at the time[1]. Identity theft, fraud and robbery are as old as human society.

Yet, today thieves, fraud and robbers can leverage financial systems which are digital and global, making the threat remarkably larger. Cyber criminals often target the weakest entry points and exploit these vulnerabilities to penetrate the global financial network. The hackers who stole 81 million dollars from Bangladesh Bank's account in New York in 2016 most probably did so from the other side of the world.

State actors with no financial motivation and an ability to cause even greater destruction are also lurking. And even more worryingly, we are seeing a new form of organised crime. The dark web is home to a number of networks where access credentials and penetration tools are sold, hacking jobs are allocated to the lowest bidder and proceeds are laundered using cryptocurrencies.

The implications for policymakers are clear. Because cyber risks are borderless, they can only be tackled jointly at the global level[2].

In my remarks I will first describe what international cooperation currently looks like in this area, before sharing some thoughts on how this cooperation can work both from the top down and from the bottom up.

My remarks should be considered through the lens of both the policy and implementation work of the CPMI and the work of the ECB, together with other European institutions, to put into practice at European level the internationally agreed rules.

Protecting the core and securing the periphery

The CPMI, as the global standard-setter for payments, clearing and settlement, naturally plays a key role in the global governance of issues related to cybersecurity. Together with the work of the G7 Cyber Expert Group, the Financial Stability Board and other international standard-setting bodies, such as the Basel Committee on Banking Supervision (BCBS) and the International Organization of Securities Commissions (IOSCO), the work of the CPMI provides the necessary basis for authorities around the world to help protect the financial system against cyber fraud.

The CPMI's overarching strategy is, in a nutshell, to *"secure the periphery and protect the core."* By the periphery, we mean the outer layers of the financial system – the endpoints and networks through which financial institutions connect to systemically important wholesale or interbank payment systems. That is, those endpoints exploited by the hackers to steal funds from Bangladesh Bank.

To minimise such risks, last year we published a report that sets out a flexible way for both public and private stakeholders to prevent, detect, respond to and communicate about fraudulent payments and payment requests[3].

The other half of our strategy relates to the core of the financial system – the critical payment systems and financial market infrastructures (FMIs) that ensure the smooth functioning of our financial system – the backbone, or the 'plumbing'[4]. To protect this core, three years ago the CPMI, together with our colleagues at IOSCO, published a report on cyber resilience for FMIs[5].

This was the first internationally agreed guidance on cyber security for the financial industry. Today, it still provides a coherent approach that requires strong governance and oversight of all aspects of prudent cyber risk management at FMIs, including robust testing, situational awareness and continued learning.

And our approach is not just for FMIs. It can be applied to almost any financial or non-financial company. Indeed, one of the findings in the recent BCBS report on cyber practices is that the CPMI-IOSCO Guidance is one of the three standards currently used by banking supervisors[6].

"... we need to find solutions to the issues related to privacy, data protection and reputational concerns so we can keep our financial system safe"

Implementation is crucial but challenging

Of course, the proof of the pudding is in the eating. The value of the work of standard-setting bodies lies in its implementation. CPMI and IOSCO authorities have been working closely with FMIs in their respective jurisdictions on the implementation of the CPMI-IOSCO Guidance. I will expand in a moment on what the ECB has done in this respect. At the international level, we plan to begin more detailed implementation monitoring this year.

Our wholesale payments strategy, meanwhile, has been endorsed by all BIS governors, who are committed to implementing it in due course. To promote the widest possible application of the strategy and achieve global cohesion in standards, I, together with Mark Carney, Governor of the Bank of England and chair of two BIS central bank groups, recently addressed around 100 other central bank governors, encouraging them to commit to the strategy and providing details about how we can help each other learn and evolve. Many have already taken us up on our offer of support.

Beyond this, we are coordinating with industry stakeholders to develop best practices to prevent wholesale payment fraud across the ecosystem, and sharing these best practices through our outreach efforts.

Last September, I co-chaired at the Banque de France the first roundtable among CEOs of the 22 largest global and regional FMIs and their supervisors. The meeting explored how we collectively – FMIs and supervisors – could strengthen cyber resilience to defend against a common threat.

We identified three areas where the challenges require us to work closely together to find solutions:

(i) data integrity;

(ii) information-sharing; and

(iii) third-party service providers.

Data integrity is a broad concept but a lot of our discussion today focuses on the two-hour recovery time objective. The CPMI-IOSCO Principles for Financial Market Infrastructures require FMIs to be able to recover from an operational outage within two hours.

At first, many dismissed this target as illusory. But technological progress has since made it universally achievable for most advanced and systemically important FMIs. Yet, there remains a critical risk that a rush for recovery after a cyber outage may be counterproductive in the event that the underlying data have been corrupted.

Rebooting a system with corrupt data that break every participant's reconciliation tools and sow further market discord would, to put it bluntly, be a disaster.

How to tackle this issue is one of the topics that the industry is discussing in three international working groups that emerged from the CEO roundtable. There are a number of possible avenues to explore, including contingent arrangements, segregated ledgers and frequent reconciliations. The CPMI and IOSCO will act as catalysts for these groups, as needed, and we will keep up to date with their progress.

Similar groups are planned to explore open issues related to the two other areas I mentioned before: information-sharing and third-party service provision. For information-sharing, common protocols exist to share financial events. But for operational incidents these protocols have so far been segregated by type of FMI, market and jurisdiction. A common international protocol for operational incidents could enable faster and better-informed responses.

For third-party service provision, such as cloud services, cooperation among FMIs can improve safety arrangements by providing a clearer view of common service providers' risk management practices. Common action also has the potential to improve efficiency by avoiding the duplication of third-party risk assessments.

The Eurosystem's cyber resilience strategy

Taken together, the work of the CPMI and other standard-setting bodies has provided FMIs and other entities with a rich and diverse environment in which to learn how to effectively fend off cyber incidents, which are becoming more frequent and increasingly sophisticated.

Work by other institutions supports these efforts at various levels. At a global level, for example, work by the G7 Cyber Expert Group sets out fundamental elements for risk management and simulates the impact of major cross-border cyber incidents involving G7 financial authorities[7].

Work at regional level can feed into and inform such global initiatives. The ECB is a good example of both bottom-up and top-down international cooperation. On the one hand, the ECB has taken the lead in implementing the CPMI-IOSCO guidance in recent years. The Governing Council quickly approved the Eurosystem Cyber Resilience Strategy for FMIs, which looks to operationalise the CPMI-IOSCO Cyber Guidance in the 19 euro area countries, in March 2017.

At the same time, the ECB has also made an important contribution to establishing international best practices and building cyber resilience capacities in developing countries and emerging market economies.

More specifically, the Eurosystem cyber strategy is built on three core pillars:

(i) FMI resilience;

(ii) sector resilience; and

(iii) strategic industry-regulator dialogue. Let me briefly explain the key initiatives under each pillar.

Under the first pillar, FMI resilience, in December 2018 the ECB published its cyber resilience oversight expectations (CROE), a tool for both FMIs and overseers[8]. These expectations contain detailed best practices for operationalising the CPMI-IOSCO Guidance.

The Eurosystem is currently repeating a cyber survey among 76 FMIs to evaluate the extent to which the sector has improved in terms of cyber maturity and to assess the macro vulnerabilities of the sector more broadly.

Last year, the Eurosystem also developed the European framework for Threat Intelligence-based Ethical Red Teaming (TIBER-EU)[9]. Red teaming helps institutions to assess, by means of controlled 'ethical hacking', if and how an entity is capable of withstanding a cyber attack.

And because TIBER-EU involves high-end testing on live production systems, we are currently reflecting on how to foster an accreditation and certification capability in the EU. This would allow cybersecurity service providers to raise standards around threat intelligence and red team testing and to have their capabilities in this field validated.

Both the CROE and TIBER-EU are tools that could eventually be used around the world. In fact, I am pleased to announce that the CROE has recently been embraced by the World Bank with a view to promoting global harmonisation and enhancing the cyber resilience of FMIs in developing and emerging countries under its mandate.

And, since its publication, TIBER-EU has been adopted by the ECB and a number of European countries. The ECB is also in close dialogue with other jurisdictions that are considering TIBER-EU as a tool for their respective financial sectors.

Under the second pillar of the Eurosystem's cyber strategy, sector resilience, we recognise the strong interconnectedness of the financial ecosystem and the potential of a coordinated cyber attack to trigger a broad contagion effect, which may have an impact on the financial sector as a whole.

In June 2018, the ECB hosted UNITAS – a market-wide crisis communication exercise – which facilitated discussion among FMIs active at the pan-European level. These discussions focused on the scenario of a cyber attack on financial infrastructures that resulted in a loss of data integrity and broader knock-on effects.

The exercise revealed that there were weaknesses at the European level, which are now being followed up on through the Euro Cyber Resilience Board for pan-European Financial

Infrastructures (ECRB), which is a key element of the third pillar of the Eurosystem's cyber strategy – a strategic industry-regulator dialogue. Like the CPMI's CEO roundtable, the ECRB was established last year to facilitate a strategic cyber dialogue between pan-European FMIs and European authorities[10]. It is not a classic dialogue between regulators and industry. As one member put it, *"we are all victims and we have to address the cyber challenge together."*

Based on the results of the first round of our cyber survey and on the UNITAS exercise, the ECRB is focusing on five key areas:

(i) information-sharing;

(ii) European crisis management;

(iii) training and awareness;

(iv) ecosystem recovery and coordinated reconciliation; and

(v) third-party risk.

The work on information-sharing can feed directly into the global discussion held at CPMI-IOSCO level. The ECRB has established a working group with the market to design the building blocks for effective information-sharing, which we will operationalise by the end of 2019.

On pan-European crisis management, a working group will determine what is considered to be a crisis, the key stakeholders that should be involved in crisis situations, and when such crisis management arrangements should be triggered. The ambition is to have a range of playbook scenarios that will be regularly tested at a collective level.

On training and awareness, the ECRB will also host an industry workshop in the second half of 2019, exchanging best practices to raise general cyber awareness among staff at all levels in order to change their behaviour in the light of the actual and perceived cyber threats.

Finally, also in the second half of 2019, the ECRB will echo similar initiatives at the CPMI-IOSCO level and turn its attention to ecosystem recovery and coordinated reconciliation, and third-party risk. In other words, it will focus on how to respond to a major cyber incident or prevent an incident stemming from our ever-expanding supply chain.

This work is now led by my colleague Sabine Lautenschläger, who has taken over the responsibility for payments and market infrastructure oversight in the ECB Executive Board.

Conclusion

Much progress has been made in recent years in strengthening cyber resilience, thanks in large part to the smooth interplay between global standard-setting bodies, regional authorities and industry stakeholders.

But because the nature of the threat landscape is changing constantly, the risk of a major cyber incident remains real and is, in all likelihood, rising. Failure to adequately protect against cyber attacks may dent confidence in the stability of the financial system and have more far-reaching repercussions on the broader economy.

To avert these risks, and to stay ahead of those trying to damage our financial system, we need to leverage the tools and best practices that already exist and strengthen multilateral cooperation to promote innovative ideas, practical solutions and experience-sharing.

In doing so, we need to find solutions to the issues related to privacy, data protection and reputational concerns so we can keep our financial system safe. ■

Endnotes

1. See Fosburgh, L (1973), "Chief Teller Is Accused of Theft Of $1.5 Million at a Bank Here", New York Times.

2. See also Cœuré, B (2018), "The future of financial market infrastructures: spearheading progress without renouncing safety", speech at the Central Bank Payments Conference, Singapore, 26 June; and Cœuré, B (2018), "The new frontier of payments and market infrastructure: on cryptos, cyber and CCPs", welcome remarks at the Economics of Payments IX conference, Basel, 15 November.

3. See CPMI (2018), Reducing the risk of wholesale payments fraud related to endpoint security, May.

4. Examples include real-time gross settlement (RTGS) systems, central counterparties (CCPs) and central securities depositories (CSDs).

5. See CPMI-IOSCO (2016), Guidance on cyber resilience for financial market infrastructures (FMI), June.

6. The two other standards are the cyber framework of the National Institute of Standards and Technology and the ISO guidelines for cybersecurity. See BCBS (2018), Cyber-resilience: range of practices, December.

7. See G7 Cyber Expert Group (2018), Fundamental elements for third-party cyber risk management in the financial sector, 12 October.

8. See ECB (2018), Cyber resilience oversight expectations for financial market infrastructures, December.

9. See ECB (2018), TIBER-EU framework: How to implement the European framework for Threat Intelligence-based Ethical Red Teaming, May.

10. See Cœuré, B (2018), "A Euro Cyber Resilience Board for pan-European Financial Infrastructures", introductory remarks at the first meeting of the Euro Cyber Resilience Board for pan-European Financial Infrastructures, Frankfurt, 9 March; and Cœuré, B (2018), "Euro Cyber Resilience Board for pan-European Financial Infrastructures", 7 December.

Personal Information Protection Act 2016 (PIPA)

The Bermuda Department of ICT Policy and Innovation review the Personal Information Protection Act 2016 (PIPA)

PIPA introduces a right to informational privacy that is bespoke to Bermuda and was drafted to meet the aspirations of a country focused on a future where data is inextricably linked to the quality of life for its residents and citizens. PIPA builds on Bermuda's blue-chip reputation, its long business relationships with the world's key economies, its world-class regulatory infrastructure and its desire to be in the vanguard delivering 21st century information services.

The law provides a high standard of personal information protection giving confidence to individuals in the growing trust and personal information economy. In addition to providing a fundamental human right, as attested to by the UN Universal Declaration of Human Rights for both self-sovereignty and privacy, PIPA is a critical pillar of Bermuda's cybersecurity infrastructure.

The Bermuda approach

PIPA establishes a progressive framework for the protection of personal information. It was created to meet current European privacy standards on which the 'international network of trust' is based that permits the free transfer of personal information between states providing 'adequate' privacy protection[1]. PIPA's concepts and approach will be instantly familiar to anyone with experience of the OECD/APEC/EU Privacy Principles.

Familiarity provides confidence and legal certainty reduces risk. PIPA creates a privacy framework covering all personal information used by organisations including the Government of Bermuda, and implements standard privacy principles enabling Bermuda to draw on a large body of privacy law developed in other jurisdictions. This, coupled with English law and an appeal process ending with the Privy Council in London, provides both familiarity and a strong basis for legal certainty.

PIPA also provides a feature not always found in other jurisdictions; under the legislation, an organisation may request that the Privacy Commissioner issue a *"finding or decision"* concerning its privacy compliance. This means that a business with a new/novel service using personal information (or thinking about setting up in the country) may obtain an official statement as to whether they comply with the law before incurring significant expenditure[2].

Privacy and the United States

PIPA was drafted with the assistance of US attorneys and is based on legislation from an economy reliant on trade with the country[3]. US business can take comfort from this.

However, the US does not have overarching informational privacy legislation. Multiple laws apply to different sectors, different states, and at the Federal level. Such laws do not match the omnibus legislation found in many other countries.

What's more, while one-off deals have been made that enable the transfer of personal information to and from the US, they do not allow it to join the 'international network of trust' that is founded on the European model. Equally, in a truly global world focused on interoperability and agreed standards, the assurances that a world-class privacy and data-sharing regime can offer both individuals and organisations become even more important.

Businesses that use personal information rely on the continued confidence of customers for growth. This is a fundamental issue of trust as the data required from individuals which can personalize and assert their identities and brand loyalties is a critical component in all transactions for goods and services involving customer data. Recent events have undermined this and actions by a number of ultra-large, publicly-listed technology and data organisations continue to create considerable uncertainty around the future of privacy[4] in the US and around the world.

If you are looking for a jurisdiction that provides an effective and efficient approach to privacy protection, that meets international best practice, and that will boost customer confidence, you need look no further than Bermuda.

Conclusion

PIPA places Bermuda at the forefront of global privacy protection. It creates a straightforward privacy framework and provides customers with a high level of confidence. ■

1 An application for EU adequacy will be made by Bermuda at the appropriate time
2 Subject to standard limitations
3 Alberta
4 Tim Cook, Apple CEO, proposed a US version of the EU GDPR at the 40th ICDPPC (24/10/2018)

Open banking: threat or opportunity?

Tiffany Carpenter is Head of Customer Intelligence at SAS UK & Ireland

Open banking may not have made much of an impression on consumers yet. But it's a topic that the industry cannot afford to ignore. Tier one UK banks are already bound to grant licensed startups access to transaction-level data, and smaller banks are likely to have to follow suit in the near future. The potential impact on the banking landscape is profound.

Today, the standard business model for retail banks is to build strong relationships with their customers by offering free current accounts and other incentives. These services are a net cost to the business, but they help the banks win trust and provide a channel for marketing more profitable products, such as mortgages, loans and wealth management services.

Open banking threatens to sweep this business model away like an avalanche. Agile fintech companies are already developing apps[1] that aggregate all the financial services that a customer receives from any provider, creating a single point of control.

This will certainly improve the banking experience for most consumers. But it will also add a new layer between banks and their customers. All communication with the customer will happen via the app – and the app provider will control that communication channel, not the banks.

According to market analysts, this poses a real threat. If a bank can't upsell high-value services to its customers, it may be left with a thin share of the market. Banks could be drowning in current accounts while app providers skim the cream of profitable loans and investment services off the top. Bain & Company[2] point out that similar disruptions in industries, such as music and travel, have seen incumbents' profits fall by 10% to 20%, often within fewer than five years.

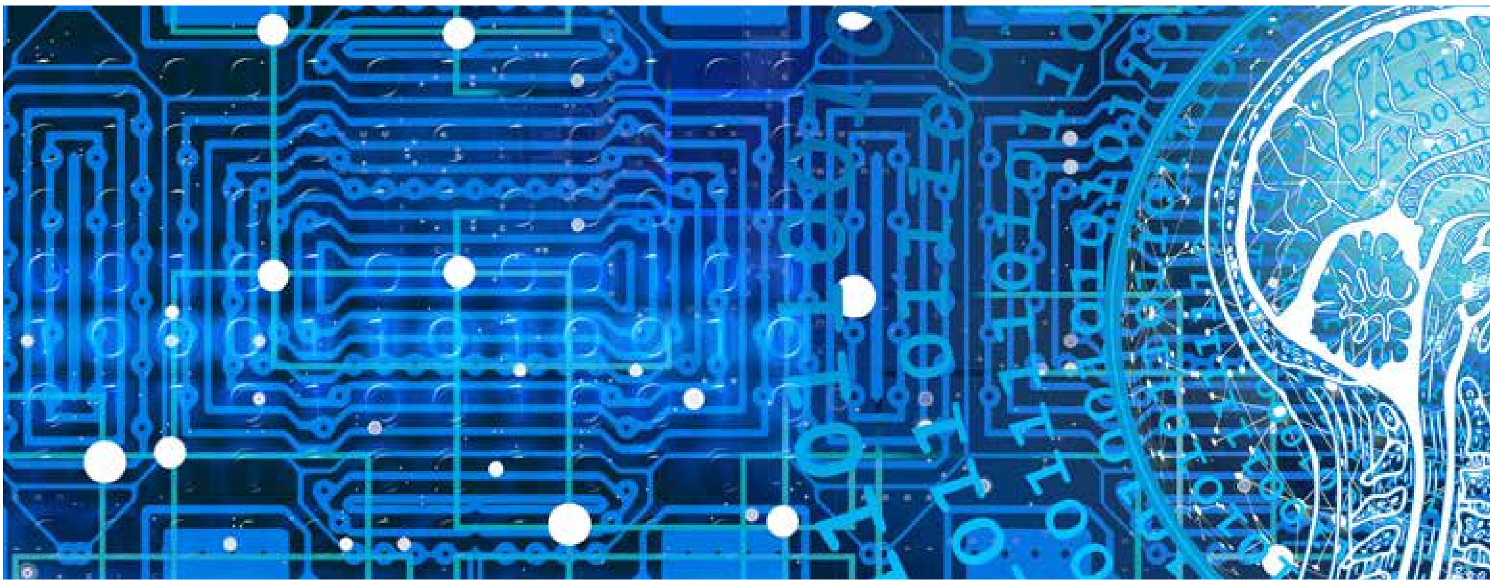
Threat or opportunity?

While the stakes are high, the odds are still in the banks' favour – at least for now. For decades, they have collected data on millions of customers and billions of transactions, across the whole spectrum of financial services. This data is a priceless source of insight that banks can use to create customer experiences that their data-poor fintech competitors simply can't match.

For example, instead of just helping customers make payments or check their balance, a new generation of banking apps could provide users with much more relevant, personalised advice. By comparing individual spending patterns with the behaviour of a wider population of users, they could pinpoint topics that users really care about –reducing utility bills, for example, or paying off a mortgage – and suggest helpful strategies for meeting their financial goals.

Serious competition

Banks aren't just worried about competition from fintech startups. There's also a risk that other data-rich companies



could make a beeline for the financial services market. Amazon, Apple, Google and other tech giants already have enormous quantities of information about consumer spending habits, as well as some of the world's most talented data scientists, UI and UX developers.

If they want to build the world's best banking app, they seem to have all the right tools already. What's to stop them from seeing financial services as their next market to dominate?

Again, the answer is that banks still have the advantage, at least in the short term. There is more to a user's personal finances than just online shopping habits. And banks have a much more complete picture of how people borrow, spend and invest their money across mortgages, loans, credit cards, savings accounts, stocks and funds.

More importantly, customers trust their bank to manage both their information and their money. As a heavily regulated industry, banks simply cannot afford to play fast and loose with their customers. Meanwhile, barely a week goes by without another scandal about an internet company selling, losing or misusing customer data.

So while you probably trust online retailers to deliver your shopping, you might still have a few qualms about letting them manage your pension.

That said, customers' trust and loyalty are finite commodities. If banks don't act on their advantage now, they will lose it little by little. An outstanding user experience can easily seduce customers. And if you can't provide one, your competitors certainly will.

"An outstanding user experience can easily seduce customers. And if you can't provide one, your competitors certainly will"

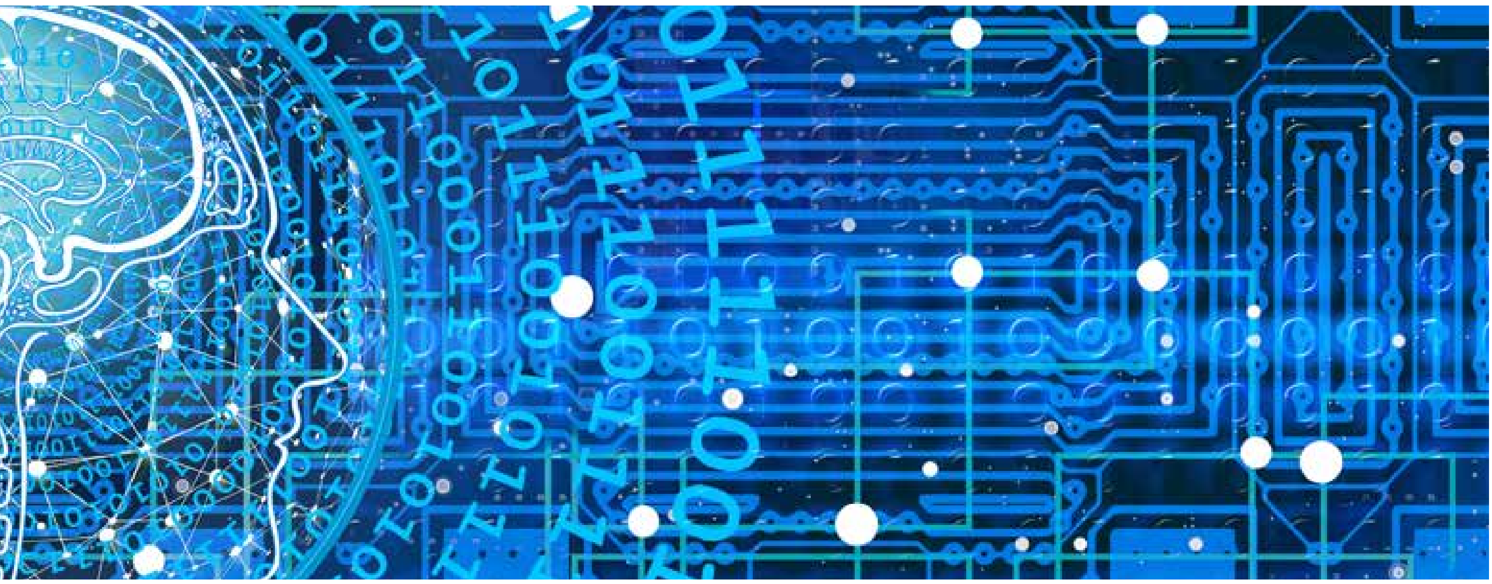
On your marks

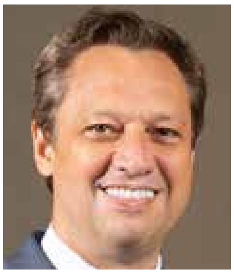
In short, the race to build the killer banking app is on – and banks, fintechs and other players are all in the running. Whoever gets there first will win it all, leaving the others scrambling to redefine their role in a banking industry that bears little relation to today's world.

The difference between winning and losing, as we've already hinted, will be in the data. If banks can mobilise the treasure trove of data they already possess and harness artificial intelligence[3] and machine learning to bring insights closer to the point of customer interaction, then they will be in a powerful position to lead the next stage in the evolution of financial services.

And that's not just wishful thinking. Take a look at our case study with ICA Banken[4]. SAS solutions are helping ICA Banken analyse customer behaviour online and combine it with historical banking data to create a fully personalised and customised user experience. While customers browse the ICA Banken site, intelligent algorithms automatically assess their needs and display helpful information and relevant offers in real time, resulting in a tenfold increase in conversion rates for the bank's campaigns. ■

1. *https://blogs.sas.com/content/hiddeninsights/2019/04/24/do-banks-really-need-to-choose-between-operations-and-innovation/*
2. *https://www.bain.com/insights/coping-with-the-challenge-of-open-banking/*
3. *https://www.sas.com/en_us/insights/analytics/what-is-artificial-intelligence.html*
4. *https://www.sas.com/sv_se/customers/ica-banken.html*





Stablecoins, central bank digital currencies, and cross-border payments

Tobias Adrian is the Financial Counsellor and Director of the Monetary and Capital Markets Department of the International Monetary Fund (IMF)

Just a year ago, the talk was all about cryptoassets: Bitcoins and its multiple evolutions. We have moved on, since then. Now, we must reckon with eMoney, a new form of digital currency with the potential to be much more disruptive. I will define eMoney, then discuss its implications in a closed-economy setting.

I will suggest that its adoption may be extremely rapid — but that it may raise significant risks. Policies to counter these risks — as in a sleight-of-hand magic trick, you will see — yield a synthetic version of central bank digital currency (CBDC) with various advantages relative to the full-service version just discussed, and studied in a recent IMF publication[1].

Then, I will consider the open-economy extension of these ideas. While eMoney brings key advantages to cross-border payments, it may pose risks to the stability of the international payments system. It could also encourage dollarisation.

As policymakers, we must turn our attention to the international monetary system, toward new solutions — including technological ones — and enhance global cooperation by upholding the role of the IMF as the caretaker of this fragile system, though one with great opportunity.

What is eMoney?

eMoney is a means of payment and a store of value fully backed by fiat currency. It is the digital equivalent of a pre-paid card. eMoney, in my definition, can be issued as tokens or accounts, settled in a centralized or decentralized fashion. eMoney thus also includes a version of 'stablecoins' that is fully backed or collateralized by fiat currency — what some call 'digital fiat currency'. eMoney can be traded through an app on your cellphone, between individuals and businesses alike with ease and immediate effect.

Think of WeChat Pay and AliPay in China, M-Pesa in Kenya, Bitt.com in the Caribbean, and USD-coin by Coinbase and Circle. Other major tech companies are also rumored to introduce their own form of eMoney very soon. eMoney, in its various forms, covers more than 25 currencies to date, and that number is growing rapidly. Adoption rates are impressive.

In Kenya, for instance, 90 percent of the population over 14 years of age uses M-Pesa. In China, transactions in eMoney reached $18.7 trillion — more than all transactions handled worldwide by Visa and MasterCard combined. Furthermore, many operators now offer debit cards that can be used with stablecoins, turning them into an efficient means of payments for most merchants.

Advantages of eMoney

Why is adoption of eMoney so rapid and widespread? First, because its value is stable relative to fiat currency. The exchange rate is 1 to 1 (or very nearly), not 6,000 to 1 one day and 3,000 to 1 the next, as for some crypto-coins.

In fact, eMoney works exactly like a strict currency board, with each unit of eMoney — token or account entry — fully backed by fiat currency. You pre-fund your eMoney holdings, and your funds are stored in a trust account.

But why use eMoney and not fiat currency, since the first is merely a digital representation of the second?

- First, for convenience. eMoney is better integrated into our digital lives, and often issued by companies that fundamentally understand user-centered design and integration with social media.

- Second, for transaction costs. Transfers in eMoney are near-costless and immediate, and are thus often more attractive than card payments or bank-to-bank transfers.

Third, for trust. In some countries where eMoney is taking off, users trust[2] telecom and social media companies more than banks.

Fourth and finally, for network effects. Social media and other digital-economy giants contemplating the introduction of eMoney have enormous installed bases through which new payment services can rapidly spread, driven by strong network effects.

Risks to eMoney

eMoney is probably coming to a phone near you. And with it, a world of convenient, costless, and immediate payments at the touch of your fingers… Sounds rosy, but there are problems related to customer protection, safety of the payments system, and ultimately financial stability.

The first risk is to the value of eMoney. If it is issued over and above the funds held in the trust account, there could be a run on eMoney, and a significant loss of wealth. We know how destabilizing large devaluations following failed currency boards are.

The second risk is to the security of the trust account. Despite the allusion to 'trust', funds could be invested in risky or illiquid assets or encumbered as collateral. Redemption of eMoney into fiat currency may not always be possible.

The third risk is to the interoperability of eMoney and thus to market contestability. We noted earlier the strong network effects in payments. If eMoney issued by different providers is not interoperable, only the largest providers will survive. The fat cats will eat the nimble and potentially more innovative mice. Even regulation mandating common technological standards will not resolve the issue.

It was easier to get cell phones from different providers to talk to each other. In the case of eMoney, interoperability requires a common settlement platform — a way to seamlessly, cheaply, and securely transfer funds between trust accounts. You will not be able to redeem the eMoney I send you for fiat currency unless a corresponding amount of fiat currency is transferred from my provider's trust account to yours.

Tackling risks to eMoney—a potential role for central banks?

While eMoney inexorably grows — potentially booms — in front of our eyes, major risks also rise. How do we tackle them?

One way is for central banks to get involved. Other approaches are also possible; less impactful, though perhaps safer. We will face difficult choices ahead as policymakers. But we will have to make them.

Central banks could offer eMoney providers access to their reserve accounts, under strict conditions, of course. Through effective supervision, central banks could check that eMoney issuance is fully backed; there goes risk number one.

Moreover, eMoney holdings would become extra safe and liquid for customers, especially if reserve accounts were protected from other creditors of eMoney providers in case of bankruptcy. That would take care of risk number two, minus the hassle of claiming one's funds.

Finally, central banks would ensure interoperability between eMoney issued by different providers by offering a common settlement platform between trust accounts; down with risk number three. Mind you, other risks would be introduced. Most notably, the risk of a potential and partial disintermediation of commercial banks if some depositors preferred holding eMoney. But let us leave that for discussion.

Synthetic CBDC

I would instead like to draw your attention to the fact that while we were focused on alleviating risks — on protecting consumers and financial stability, all laudable goals — we inadvertently created CBDC! A new version, that is, which we call 'synthetic CBDC'.

"Would eMoney available across borders spell the end of weak currencies? It would certainly put a lot more pressure on countries with weak institutions and policy frameworks"

Yes, if eMoney providers can keep client funds as central bank reserves, and if these are protected from other creditors, then, by proxy, eMoney users can hold, and transact in, a central bank liability. Isn't that the very definition of CBDC?

Synthetic CBDC has notable advantages relative to the full-fledged version from the previous presentation, in which the central bank creates tokens or offers accounts to the public.

Synthetic CDBC outsources several steps to the private sector: technology choices, customer management, customer screening and monitoring including for 'Know Your Customer' and AML/CFT (Anti-Money Laundering and Combating the Financing of Terrorism) purposes, regulatory compliance, and data management — all sources of substantial costs and risks.

The central bank merely remains responsible for settlement between trust accounts, and for regulation and close supervision including eMoney issuance. If done appropriately, it would never need to lend to eMoney providers, as their liabilities would be fully covered by reserves.

A synthetic CBDC is essentially a public-private partnership that encourages competition between eMoney providers and preserves comparative advantages. The private sector concentrates on innovation, interface design, and client management. And the public sector remains focused on underpinning trust.

Open-economy complications

Check-mark? Have we finished work and can now stroll along the inviting Mythenquai just outside? Not so fast. Things get a little more complicated as we consider cross-border payments.

Clearly, eMoney could bring enormous benefits to cross-border payments, which currently tend to be slow, opaque, and expensive. The token version of eMoney could also facilitate cash payments in cross-border financial trades once assets migrate to the blockchain (allowing seamless 'delivery versus payment'). But these gains must be weighed against risks. An example may help.

The case of a person in Zurich, transferring Swiss franc eMoney to a friend in, say, Italy, is simple. Marlis clicks a button, and Francesco gets the funds. But suppose Francesco wants to receive euro-based eMoney.

To simplify matters, suppose both use the same platform — a fictitious 'Pay-n-Chat'. Then Pay-n-Chat Switzerland would

draw down Marlis' Swiss franc account, and credit Pay-n-Chat Italy, which would issue euro-based eMoney to Francesco.

The only problem is that Francesco's eMoney is now backed by Swiss franc reserves held at the Swiss National Bank. Clearly, this is purely fictitious: I am not insinuating the SNB would actually do this.

As in the popular game of whack-a-mole, the risks we had formerly buried now rise again. Is Francesco's eMoney fully backed? Yes, Pay-n-Chat could continuously hedge its foreign exchange risk. But it has now become a lot harder to be transparent about it. And transparency is key for trust. And trust is key for adoption.

Redemption risk has also re-emerged. What happens when Francesco wants to redeem his eMoney in euros? Pay-n-Chat Italy may be able to draw down reserves it holds with the ECB — again, a fictitious example. Or Pay-n-Chat Switzerland could sell Swiss francs for euros and send those to Pay-n-Chat Italy. Cumbersome, expensive, potentially slow. Exactly the costs these companies are trying to avoid.

So, what might Pay-n-Chat do? Focus on just the main currency pairs for which there are large and relatively balanced capital flows to maximize the matching of eMoney with local currency reserves. But this could imply a fragmentation of the international payment system; much like paving highways while neglecting country roads — those leading to many smaller countries around this world.

Another risk that resurfaces is to market contestability. In our example, Pay-n-Chat Italy extended credit to Pay-n-Chat Switzerland; a mere accounting trick to balance the company's books. But had the transfer involved two separate entities, it would have induced credit risk.

Clearly, then, transfers will be cheaper if they remain within the same company. Size will matter. Just like in the correspondent banking world, this favours a concentrated market structure. Not only have we stepped back into several of the risks we had formerly identified — and thought we had solved — but entirely new risks also arise, even supposing we could fix those above.

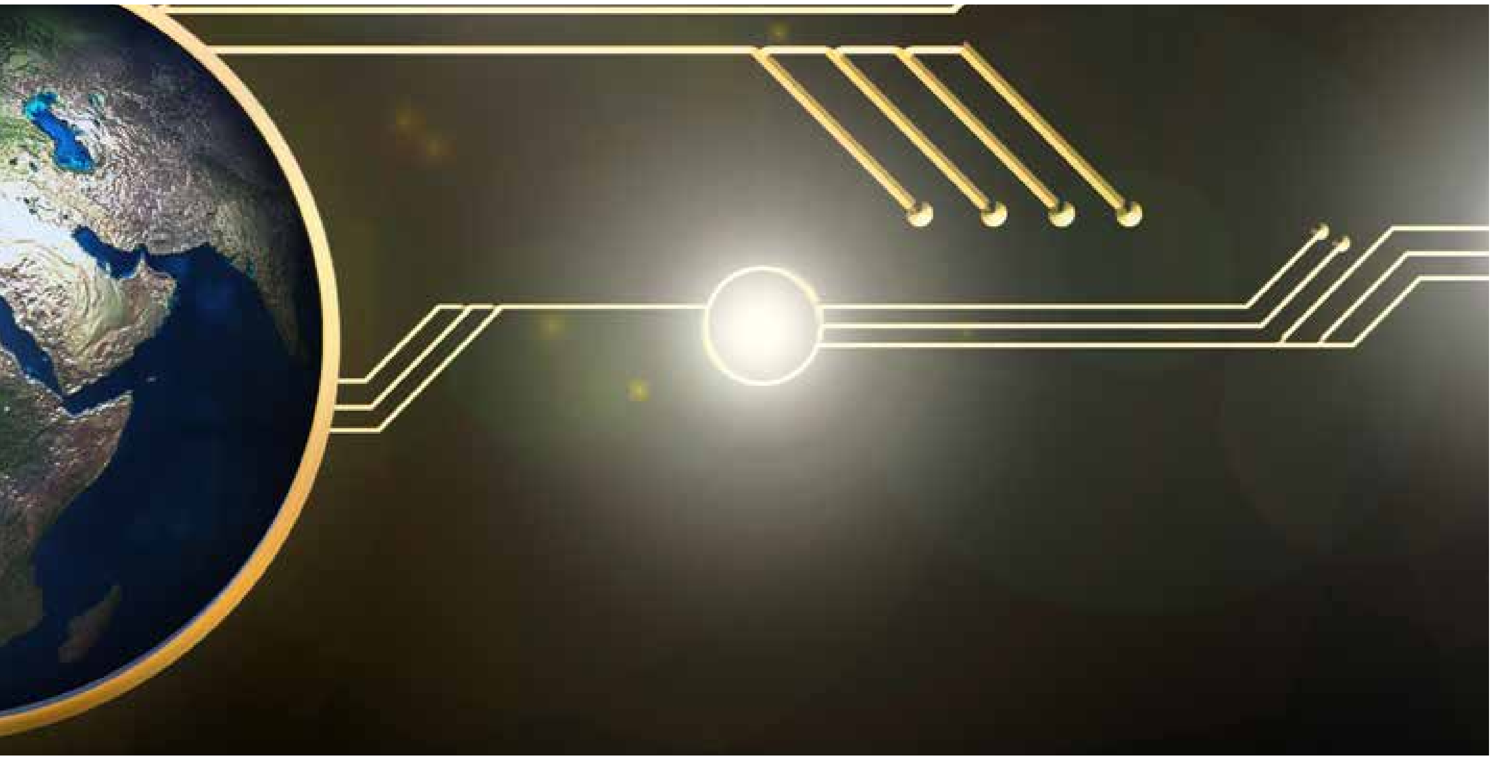
Dollarisation risk

One is the risk of facilitating dollarisation. In most cases, the Fund is concerned about dollarisation as countries lose monetary policy control, and as financial systems become more exposed to exchange rate shocks, while the central bank is constrained in providing liquidity. Dollarisation is found to restrain financial development and long-run growth[3].

Dollarisation faces headwinds in most countries. Transaction costs of purchasing foreign currency are typically high, storage is cumbersome and risky if banks do not offer foreign currency accounts, and transactions are limited; many countries do not offer clearing and settlement services in foreign currency.

The availability of foreign currency-based eMoney could lower some of the barriers to dollarisation. The headwinds could become tailwinds. eMoney could make storage of foreign currency easier, safer, and cheaper. And, importantly, it could greatly facilitate transactions in foreign currency. In addition, it could drastically lower costs of remittances, which would increase foreign currency inflows.

Would eMoney available across borders spell the end of weak currencies? It would certainly put a lot more pressure on countries with weak institutions and policy frameworks. From a world of grey tones, where those muddling through persist, we might face greater contrast; one either makes it or is taken over by foreign eMoney.



IMF to the rescue

Let's take stock. Uncertainty as to the course of technology and its impact on the financial sector; risks to the international payment system, of fragmentation and instability; risks of dollarisation; dangers of weak institutions and policy frameworks… Each calls the IMF into action.

The best defence against loss of monetary autonomy, of excessive dollarisation instigated by foreign eMoney, is good policy. IMF surveillance can help. And requests for technical assistance in this area are already on the rise, in number and urgency. We must be ready to answer these calls.

Clearly the IMF can also help with its analytical capacity, to identify disruption, fathom future scenarios, and evaluate how policy choices can favour the more attractive ones. And the IMF's convening power may be needed more than ever, to bolster the international payments system. But this time, also with new technologies.

For instance, the risks and drawbacks to cross-border payments, which we discussed earlier, could be surmounted by greater coordination between countries. What if central banks, which may help eMoney providers develop on domestic markets, also favoured their expansion into cross-border payments? What if they settled transactions by exchanging reserves among each other? Of course, only after further analysis of the benefits and risks — including credit risk — of such bold operations.

Could an international institution — such as the IMF — facilitate these operations by running a common platform, mutualising credit risks, or at least establishing guidance and regulation? Or could new eMoney be created, with 1-to-1 backing by a basket of fiat currencies, to settle transactions between central banks? Some have called this the eSDR or dSDR.

Clearly, this is still hypothetical. But given the speed at which we're traveling, we must at least map out the terrain that lies ahead before picking a path.

Wherever we go, the M for 'monetary' in IMF is bound to get a new polish as we focus on the new monetary challenges to the international monetary system. The years to come will be especially exciting for the global financial architecture! ■

Endnotes

1. https://www.imf.org/en/Publications/Staff-Discussion-Notes/Issues/2018/11/13/Casting-Light-on-Central-Bank-Digital-Currencies-46233

2. https://www.bain.com/insights/many-consumers-trust-technology-companies-more-than-banks-snap-chart/

3. See for instance Sebastian Edwards and I Igal Magendzo (2001), "Dollarization, Inflation and Growth," NBER Working Papers 8671, National Bureau of Economic Research, Inc.

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How the blockchain enables a new economy

This crypto economy will transfigure businesses, government and our society, perhaps even more profoundly than the internet did, William Mougayar writes

What started as Bitcoin, a model cryptocurrency that captured the imagination of many, is metamorphosing into something bigger: a 'crypto-tech' driven economy with unparalleled global value creation opportunities, not unlike the Web's own economy.

Welcome to the crypto economy.

Contrary to what is seemingly visible today, this crypto economy will not be born by attempting to take over the current financial services system, nor by waiting for consumers to transfer money into cryptocurrency wallets; rather it will emerge by creating its own wealth, via new types of services and businesses that extend beyond money transactions.

The crypto economy is the next phase of the internet's evolution: the decentralization era. Its genesis is Bitcoin's backbone technology: the 'blockchain', a key concept that has entered our technophilic vocabulary, but with applicability reach outside of just Bitcoin.

At its core, the blockchain is a technology that permanently records transactions in a way that cannot be later erased but can only be sequentially updated, in essence keeping a never-ending historical trail. Blockchains also enable assets and value to be exchanged, providing a new, speedy rail for moving value of all kinds without unnecessary intermediaries.

This seemingly simple functional description has gargantuan implications. It is making us rethink the old ways of creating

transactions, storing data, and moving assets, and that's only the beginning.

This 'value exchange' modus operandi is the spark of a domino effect in innovation, unseen yet since the advent of the Web. To understand how cryptocurrencies are leading us into this new frontier, we need to go back and question the meaning of money, then combine those answers with an understanding of the powers of the blockchain.

What is money?

Money is a form of value. But not all value is money. We could argue that value has a higher hierarchy than money. In the digital realm, a cryptocurrency is the perfect digital money.

The blockchain is a perfect exchange platform for digital value, and it rides on the internet, the largest connected network on the planet. The resulting combustion is spectacular: digital value that can move fast, freely, efficiently, and cheaply. That is why we have called the blockchain a new 'value exchange' network.

Cryptocurrency, because of its programmability aspects, embodies digital information that can enable other capabilities. When you 'pay' via cryptocurrency, that transaction could also include additional trust-related rights, such as for property, information, custody, access, or voting.

But money is not the only form of value that the blockchain could move. The genie is out of the bottle: what if the blockchain could move any digital asset?

What if you could take any legally binding construct like identity, ownership, contracts, or rights, and attach it in a unique, unforgeable, and auditable way to the blockchain's cryptographically secured ledger; then you open the path to millions of usage scenarios that gain wings by being tied on the blockchain.

Going one step further, imagine a world of multiple blockchains, not just one; and we end-up with a huge overlay network of decentralized services that are open and accessible to anyone.

Therefore, the blockchain enables a new form of meta-transaction where the value is represented by what it unlocks at the end of the transaction, not just by an intrinsic monetary value that gets deposited in a static account.

It sounds like a type of stock market functionality that allows the trading of an unlimited number of unregulated value elements, unlike financial securities that are regulated.

And, it is more distributed, more decentralized, and more active in the sense that your 'wallet' can trigger actions that are directly wired into the real world.

How do we get there?

With most enabling technologies, we typically begin by duplicating old habits, often by doing the same processes faster or cheaper. Then we start to innovate by doing things differently, and by applying new ideas that we couldn't implement before. That's how the internet took off as soon

"This crypto economy is the newest phase of the internet, and it will unravel and blossom over the next 10 years"

as we started to program it with 'Web applications', and it is precisely the path that the crypto-tech revolution is on.

If Bitcoin (or any cryptocurrency) is programmable money, the blockchain is also programmable value, programmable governance, programmable contracts, programmable ownership, programmable trust, programmable rights, programmable assets, and more.

This gets us to the next nugget in this emerging puzzle: how do we create new value?

You create value by running services on the blockchain.

Buckminster Fuller once said: *"You never change things by fighting the existing reality. To change something, build a new model that makes the existing model obsolete."* He is right.

That is exactly what is happening. Bitcoin and cryptocurrencies will succeed; not by mounting frontal attacks on the current financial system, nor by seeking permissions from regulators and gatekeepers. Rather, change will start to happen by creating a parallel system that will get stronger and grow on its own over time.

What are the several ways to create this new value in the new cryptospace?

There is a precedent in what already happened in the cyberspace. With the internet, we had e-commerce, e-business, e-services, e-markets. Later, the social web arrived with large-scale social networks, and the mobile web scooped over 3 billion global users. Each one of these segments created its own wealth by existing on the internet.

In the cryptospace, we will see a number of emerging businesses that will run on the blockchains, and they will generate a new source of natively earned wealth:

1) Services where a trust component can be stored on the blockchain. Since the blockchain acts as a verifiable and auditable place where transactions are really difficult to get tampered with, what if you could bind your digital assets to the blockchain, in essence finger printing your ownership (or rights) in irrevocable ways without the need for a central registration authority?

Expect the following foundations to be disrupted: identity, rights, membership, ownership, voting, data ownership, time stamping, and content/services attributions.

2) Services where a contractual component can be executed on the blockchain. Also known as 'smart contracts', a term first popularized by Nick Szabo, these are small programs that can run on a blockchain and self-govern legal or contractual terms between various parties, without the need for intermediaries.

They represent a simple form of decentralized trust. Why depend on a central authority when two (or more)

parties can agree between themselves, and bake the terms, compliance and implications of their agreement programmatically? Applications areas being targeted include: wagers, family trusts, escrow, time stamping, proofs of work delivery, bounties, proof of bets, proof of compliance.

3) Decentralized peer-to-peer marketplaces. These represent an evolution from what we see today in the most successful marketplaces (ie. Uber, eBay, Amazon), but they actually threaten to replace some of these existing players.

In a decentralized peer-to-peer marketplace, anyone can sell and anyone can buy, while the centre controls less, but facilitates more. Trust, rules, identity, reputation, and payment choices are embedded at the peer level.

Participants arrive already trusted, and 'decentrally' acknowledged. The blockchain acts as the trusted virtual intermediary that checks rules, identity, reputation, payment choices. OpenBazaar (p2p ecommerce) and La'Zooz (p2p ride sharing) are some examples.

4) Distributed Autonomous Organizations (DAO) whose governance and operations run on the blockchain. Arguably, this is the epitome of business decentralisation. A DAO issues its own cryptocurrency, a process called 'crypto equity'.

Members are also 'workers', and by virtue of their collective actions and activity levels, they contribute to increasing value for the DAO. Some examples of user actions could include sharing their computing power or internet access (eg. to create mesh networks), donating data they own, delivering on bounties, and other schemes that are germane to the type of vertical segment being targeted, such as transportation or health care.

The above four sectors represent 'decentralized applications', an emergent segment of web software development. What they all have in common is that they run on a blockchain, can multiply and grow without central control, and they are fueled by cryptocurrency that powers the transactions and computer power they run on.

The cryptocurrency is like fuel; it's collected in part as toll, in part as earnout by the participating users and those that provide these services. So you can start to see how cryptocurrency is generated out of crypto-services to instigate a new economy of wealth creation.

Once that happens, there will be a critical mass of users with significant cryptocurrency balances in their accounts. Only then, can we attempt to potentially make dents into the current financial system, and in the nation-currency sovereign government paradigm. The reality is that it's very likely that the financial systems and governments will be the last bastions to be affected, and not the first ones.

What the blockchain enables is a new 'flow of value', a concept related to economics Nobel laureate Michael Spence's work on how digital technologies transform global value chains via the dynamics of information flows. The blockchain is another digital value leveller as it impacts and shifts value in the cryptospace.

The blockchain moves the power of transactions closer to the individuals, and it empowers any user to align themselves with a decentralized application or organization, and start generating or moving their own nucleus of crypto value. A side benefit of this phenomenon is to put the sharing economy on steroids, as it melds (crypto) capital and labor with mobile, location-agnostic marketplace environments.

As we prepare to get on-board the crypto economy, undoubtedly it looks fuzzy, foggy, buggy, risky, uncertain and unproven, but so did the internet in 1995. Then suddenly, it blossomed and grew into our lives, businesses, and it infiltrated society and culture, with more benefits than vices.

We are in the early stages of understanding the movement, distribution and creation of 'value' outside of the traditional norms of currency, commodity and property as the main vehicles for value transfer and appreciation. Soon, this new frontier will appear.

The blockchain symbolizes a shift in power from the centres to the edges of the networks. This is a vision that we may have romanced since the early days of the internet, but it can actually happen this time, because it is powered by an intrinsic monetary value, the internet's own native cryptocurrency.

Existing intermediaries will be at risk. And new intermediaries will be more virtual, transparent, and distributed entities that are trusted programmatically.

This crypto economy is decentralized at birth, - politically and architecturally; and it lends equal access and lower barriers of entry to all. Anyone will be able to 'work' for a DAO without permission, and therefore will generate their own wealth.

This crypto economy will transfigure businesses, government and our society, perhaps even more profoundly than the internet did 20 years ago.

This crypto economy is the newest phase of the internet, and it will unravel and blossom over the next 10 years. ■

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William Mougayar is a globally recognized thought leader and advisor on blockchain strategy, and the best-selling author of The Business Blockchain: Promise, Practice and Application of the Next Internet Technology (Wiley, 2016). He is General Partner at Virtual Capital Ventures, and on the boards of leading blockchain organizations, such as the Ethereum Foundation, the Coin Center, OpenBazaar, and Bloq.

The legal sector is primed for disruption from AI. Here's why…

Nikolas Kairinos is the CEO and Founder of Fountech

It's hard to think of a professional industry today that does not stand to benefit from AI. From finance to healthcare and even property, business leaders and savvy entrepreneurs are jumping at the chance to capitalise on AI toolsets to improve their organisation as a whole.

Yet, of all the sectors primed to benefit from AI, the legal industry certainly hasn't been a frontrunner when it comes to AI adoption. To illustrate the point, RELX Group conducted a survey of senior executives in the US and placed the legal industry in last place when it came to the adoption of AI and machine learning (ML) technologies.

Is a lack of deep-level understanding about AI hindering progress in the legal space? This is a question that we have grappled with here at Fountech, and has inspired the creation of our new and timely legal white paper, exploring the practical applications of AI within legal firms. By explaining just how this technology can drive progress and efficiency, the paper aims to arm legal professionals with the knowledge to take advantage of AI.

Below I've outlined a few key snippets of wisdom that I hope will help legal organisations and professionals leverage AI to help them do more, do it better, and do it at a lower cost.

A brief history of AI

Before we jump into the practical applications of AI toolsets, let's first cast a glance over the history of AI. After all, the industry is far older than people might think, and it has come a long way since its inception.

While AI might seem like a 21st century trend, the concept was in fact debuted more than 60 years ago in 1956 at a conference in Dartmouth University. But it is only in the last decade that AI has truly taken off and achieved landmark goals with the support of private and public funding.

Today, AI is being harnessed to create real world business value solutions, and we have witnessed a significant uptake of this technology across many different professional environments. Gartner recently revealed that enterprise use of AI grew 270% over the past four years, with over a third (37%) of organisations having implemented AI in some form or another.

The reasons for this are wide-ranging, but largely boil down to the fact that AI is becoming increasingly more accessible, and people generally have a deeper understanding of this technology and what it can be used for. I have no doubt that the speed of its proliferation across the business world will ramp up as new solutions become available for everyday use.

Having briefly considered the current state of AI in the business world as a whole, how do these trends translate into the legal space?

We've only just scratched the surface of AI in law; indeed, AI is only just beginning to come into its own in terms of its use by lawyers and legal firms. Research by the Legal Practice Management in 2018 found that 73% of law firms in the UK were still not using AI in any way – a statistic that needs to improve if firms hope to stay ahead of the curve and remain competitive.

At this point, many might be wondering what kind of solutions are out there, and how they can be used. While AI may not be a magic bullet for solving all business inefficiencies, it's certainly a good place to start. So here are a few examples of how law

firms can streamline their day-to-day operations through AI toolsets…

Shifting the document burden

One of the key attributes of AI is that it can be taught how to complete tasks traditionally managed by people, particularly where the main focus is looking for patterns in data, testing the data, and finding or providing results.

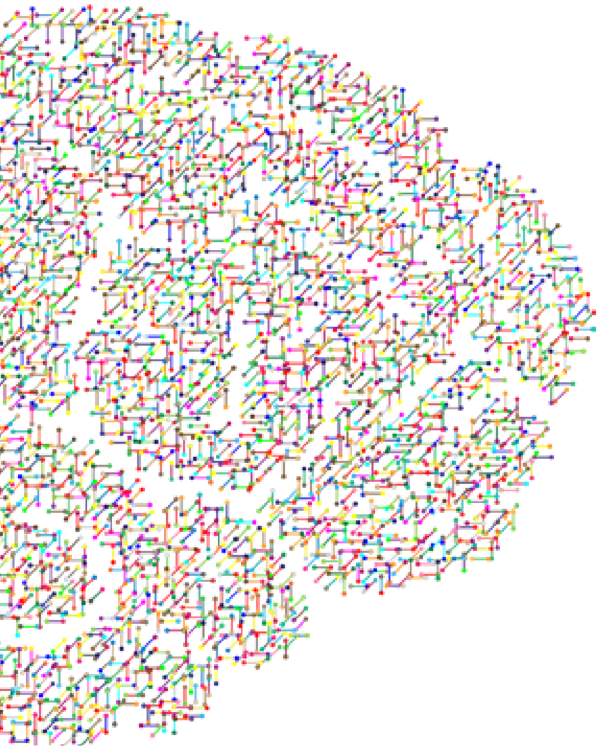
This functionality can aid in all manner of different responsibilities, but let's consider how it can be utilised to lessen the burden of document drafting and management – a task I dare say fills few legal professionals with excitement.

Needless amounts of time and effort is expended by lawyers on a daily basis as they sift through paperwork and legal documents, locating necessary information, and analysing the content in order to inform a contract or decision. Why not automate this process?

After all, it's hardly a competition; AI can scan and review swathes of data at an infinitely faster rate than any human can. To offer a practical example, let's imagine that a lawyer is trying to locate and compile a list of all of the cases of a certain description that occurred at a specific time and place.

Instead of doing this manually, he or she might instead enlist the help of an AI-powered 'smart search' solution. By asking the software a question they are seeking the answer to – in this case, it might be, *"what are all the cases of whiplash car injuries that occurred in London 2017?"* – the AI can sift through digital data stores to find documents containing relevant matches.

Whereas traditional search engines would simply scan for keywords in this instance, they lack a more sophisticated function which stems from ML capabilities. At the crux of it, ML



"If utilised effectively, AI can become an indispensable assistant to practically every legal professional, and ultimately help firms deliver better, faster and more cost-efficient legal services"

capabilities ensure that AI tools are constantly positioned to reactively learn and improve. Based on feedback from the legal professional, it can learn to refine results over time to ensure that they only revert the most relevant information.

It doesn't stop here, however. AI can even be employed to help draft professional documents. Instead of hand-crafting each contract or agreement from scratch, lawyers can simply specify what points or arguments they would like to raise in the document and leave the AI to generate legally-sound paragraphs based on previous examples. Not only does this free up countless hours of a professional's time, it also means that they're able to direct their energy towards more valuable and higher-level assignments.

Predicting the outcome of cases

This might sound like a distant reality, but the fact is that AI already has the ability to predict the outcome of cases by analysing historic data and the particulars of each individual case – in effect, offering firms a form of risk-analysis. Once again, this is down to the ability of AI algorithms to spot patterns in the data, which is then used to plot possible future trends and determine the likely consequences of different scenarios.

How does this work in practice? Let's say that a firm has taken on a personal injury case, but is unsure about the likelihood of its success. The lawyers can turn to AI tools to help predict likely arguments and decisions that the case could incur by comparing it to previous cases of a similar nature.

It would also be able to delve into the finer details of a defendant's history, together with which it could determine what the likelihood of success might be. What's more, the AI can even provide justified reasons for the case's anticipated unsuccessful outcome. Using this information, the lawyer can decide how best to approach the case, and whether they would be better off not pursuing it.

As a general point, using AI tools in an advisory capacity to support the work of legal professionals has the potential to save both the firm and the client unnecessary time and costs.

Taking on tedious tasks

AI doesn't have to be employed in a complex way, however. It can even be used to resolve small problems that legal professionals face on a daily basis.

We all know how frustrating it can be to spend hours trawling through files to locate one specific piece of information. A

remnant from many people's school and university days, this is a daily reality for legal professionals. And this task can take a significant toll on a professional's productivity levels.

Can AI help here? The answer; most certainly. For instance, AI toolsets can summarise key points found in mammoth bodies of legal text. Researchers can then read the summaries of these documents to determine whether they are useful, and if they warrant further research.

Of course, we cannot discredit the role of human intervention in this process; lawyers and legal professionals play a central role to ensure that the toolset delivers the highest quality results. To illustrate, humans are needed here to highlight any key points that are missing from the summary. Should the AI miss any central facts or ideas, the user can highlight these and teach the AI software what information it should be prioritising.

This is where the ML capabilities kick in again. Over time, the AI will be able to determine the key points to summarise based on the document's category and human feedback. So, for a researcher needing a brief overview of a sales contract, it might learn to offer a short summary of payment terms.

The uses of AI to automate and simplify tedious tasks like this are endless. Another great example is the ability to review and classify legal documents to make it easier for researchers to locate them and use them for guidance.

By determining patterns in data and analysing how previous documents were categorised, AI algorithms are able to sort and classify new documents that are uploaded. They can also use this store of data to return similar documents if a lawyer is looking for a particular type of document.

If a lawyer is drafting an employment contract and wants to seek direction from past cases, the AI can pull up similar employee contracts from the digital library for comparison. Even better, the AI can highlight any differences between the documents to ensure the lawyer is aware of these and doesn't miss key arguments in the process of drafting.

Don't get left behind!

If utilised effectively, AI can become an indispensable assistant to practically every legal professional, and ultimately help firms deliver better, faster and more cost-efficient legal services. Those who remain reluctant to adapt and embrace the change, however, risk getting left behind.

It's important to remember that the potential of AI within the legal space goes far beyond the examples mentioned in this piece. Solutions can be tailored to fit the bill of specific organisations and their inhibitions. This often comes down to determining where time and resources are being squandered needlessly, and where this can be resolved by delegating repetitive, costly or time-consuming tasks to AI.

I encourage everyone within the sector to explore the AI toolsets at their disposal, and experiment with ways that they could be integrated into their professional lives. And for those who are unsure where to begin, get in touch with Fountech to request your own personal copy of our legal white paper. ■

ABOUT THE AUTHOR

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Digital transformation: as the globe turns, so does the axle of tax compliance

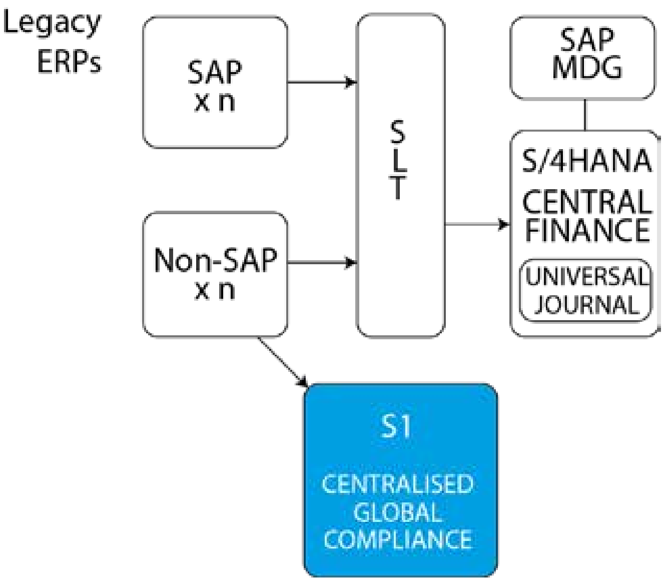
Pawel Smolarkiewicz is Chief Product Officer at Sovos

It is universally acknowledged that a global tax compliance strategy should be at the forefront of any SAP Central Finance project plan. Among SAP customers, however, tax compliance won't be a chief priority for everyone intending to transition to SAP S/4HANA, by the deadline of December 31st, 2025.

For these customers, this will prove a costly mistake. These days, businesses that neglect the compliance standards set by global tax mandates will find themselves faced with monetary sanctions, expensive audits, diminished cash flow, and broken relationships with suppliers and customers alike.

In fact, failure to comply could even destabilise SAP Central Finance and S/4HANA migrations altogether. In certain geographies, it can deadlock a whole company. To move forward, it's vital to understand that tax compliance must be non-negotiable for any switch to SAP S/4HANA, rather than being reduced to an afterthought or peripheral item.

It's fair to wonder how this might happen; the answer is that tax compliance must be approached as the axle around which the wheel of digital transformation turns. Consequently, it's important to have a strong working knowledge of the obstacles to tax compliance, which may have been overlooked in the past. In doing so, barriers to an organisation's ERP modernisation can be prevented, negating the risk of a wider roll-out getting derailed due to non-compliance.



Businesses seeking a successful migration will have to install an instance of SAP S/4HANA with the Universal Journal and SAP Landscape Transformation (SLT) replication server - the deployment model known as 'SAP Central Finance'. Once this has happened, facilitated by the prime benefit of SAP S/4HANA to run OLAP and OLTP workloads off the same systems simultaneously, businesses can begin transmitting data from other sources.

Moreover, methodically transitioning businesses process from legacy SAP and non-SAP systems minimises disruption to crucial business functions. Usually, this occurs in stages, over months or years, depending on how complex a company's legacy system landscape is; the legacy systems are retired gradually, as - in time - they become redundant to contemporary SAP S/4HANA capabilities.

Tax and SAP S/4HANA Central Finance: a digital revolution

Still, let's not forget that there's another potential roadblock to a successful SAP migration, lurking deep in the shadows of the operations of most businesses: the digital transformation of tax. Across the globe, governments are beginning their own types of digital transformation, endeavouring to regain billions in lost revenue by decreeing real-time tax enforcement, alongside fresh methods of detailed digital reporting.

This is having a tremendous impact on the plans compiled by countless organisations for SAP S/4HANA migration, especially through a staged Central Finance model. What's more, if it isn't, then that has to change - and swiftly. Modern society is equipped with the technology to enforce continuous compliance; as such, an increasing number of governments are playing a more direct role in every transaction a company makes, amending the taxation requirements any time they spot the chance for a strengthened grip on revenue.

After all, governments are not going to stop innovating any time soon, as they carry on making waves to increase revenue or reduce the tax gap. If businesses don't keep up, the particulars of digital transformation - including those all-important risks and costs - will spiral out of control.

"... global tax mandates can be convoluted and are in a perpetual state of flux. On top of this, they can be invasive in a company's business processes - and the repercussions of failing to comply have been starkly highlighted"

India and the impact of changing compliance on Core Finance migration

To this end, it's worth looking at the worldwide developments in this space. Recently, India took up the digital tax mantle - the latest country to join the global trend that originated in Latin America of digitally transforming taxation.

We are already seeing different versions of this in Spain and Hungary, as just two examples, and Italy joined them in January of this year. Infamous all over the world for its manufacturing reputation, India's new system could have lasting ramifications on countless global corporations with a footprint in the country.

India commenced its journey by establishing a new committee to interrogate the utility of e-invoicing in a bid to crack down on tax evasion under its Goods and Services Tax (GST) programme. Once established, a failure to comprehend the process - and, in turn, a failure to comply - could lead to financial sanctions, negatively affecting an organisation's cashflow and profit. Relationships with suppliers, customers, and authorities could also be in jeopardy.

This is why it's so vital to examine how governments are updating tax mandates and the consequences of these new measures - and, in turn, why compliance absolutely has to be central to any IT transformation plan. In a nutshell: if India's going to change its tax laws, global businesses in the supply chain need to be aware of this.

Fortunately, technology - especially cloud-based solutions - can isolate the risks linked with the continually-evolving changes in tax mandates and automatically include them 'as-they-happen' in ERP, and disparate systems, as well as in SAP Central Finance. This is paramount, as the contemporary digital financial core brings with it a fresh set of requirements.

Multi-national corporations must isolate their central systems from perennial regulatory disruption in order to adhere to compliance standards, irrespective of where or how often these mandates might change. Now, there's no doubt that this is the only way that they can carry on doing business in countries governments have made digital tax a priority.

Keeping up with compliance changes to avoid a Mexican stand-off

Another country worth examining as an example of why compliance is so central to digital transformation is Mexico, which has a clear mandate for keeping companies honest. Failure to comply with Mexico's e-invoicing mandate can bring business in the country to a complete standstill. Shipments end up sitting stagnant at ports and payments to suppliers are never fulfilled.

When selling goods and services into countries where continuous compliance and tax enforcement are becoming increasingly complex, digital transformation of a company's financial core is paramount.

Core financial systems must be protected, through flexibility, from regulatory disruption in order to meet compliance requirements, no matter where or how often mandates might change. Failure to do so will hinder a company's ability to do business in countries where digital tax is championed.

Of course, the Mexican mandate is subject to endless change. If a mandate such as the e-invoicing regulation in Mexico changes during a transition to SAP Central Finance and a business that has rendered compliance a mere afterthought is unable to adapt to it, the ramifications on cashflow and working relationships with suppliers could be colossal. As such, it's important to have an adaptable system that can react to new and changing mandates - a cornerstone of any migration to SAP S4/HANA.

The process begins with the e-invoice itself (known as a CFDI in Mexico). Previously a paper invoice, the government now requires electronic invoices in a standard XML format. Organisations doing business in Mexico must generate an electronic invoice in this format with all relevant information (tax ID number and description of goods, for example). Once submitted, the shipper receives a unique number called a UUID from the government; once this is generated, a company can ship its goods.

This all happens in real-time. Equally, businesses receiving invoices must validate them with the government, ensuring that the information on the invoice matches the information stored in a government database.

Once this is confirmed, the company can take delivery of its shipment. If it doesn't, the government has visibility of discrepancies and can delay the transmission of goods, in some cases penalising the business in question for submitting erroneous data.

Nonetheless, financial penalties are just one of the many consequences of non-compliance. Delayed or cancelled shipments can quickly lead to frustrated customers and lost revenue. From there, the tax implications themselves can cause headaches, with painful monetary repercussions to top it all off.

Here, as well, e-invoicing compliance is just the tip of the iceberg. An e-archiving mandate necessitates that companies must store their invoices in a specific format, as this is the only way that they can be prepared for electronic audit by the government at any time. The process of cancelling an invoice, only recently created and likely to change at some point, is both complex and critical for remaining compliant.

Mexico, then, illustrates how governments are mandating enforcement tactics such as e-invoicing and e-archiving to track VAT payments in real time, thereby eliminating fraud and errors that would previously have led to underpayment. This is why it's imperative, when transforming finance systems, to have an adaptable system capable of reacting to new and changing mandates - evidently, the risks of not doing so are not worth it.

The power of the cloud

This is where the value of a complete cloud-focused culture shift becomes clear. A connected, central, cloud compliance solution - backed by continuous support - can provide the isolation from digital tax regulatory change disruption that businesses require to carry out their IT migration unhindered. Of particular note, a centralised compliance solution perfectly complements the SAP Central Finance deployment model - or, in fact, any extended migration project.

To this end, cloud compliance solutions must offer the benefit of being able to address both legacy and digitally transformed systems at the same, with neither at the expense of the other - a non-negotiable capability for successful phased migration. Bearing in mind the formidable scope of any such IT project and the sensitivity of the data involved for SAP customers moving to S/4HANA, it's most likely that tax compliance will start life on the periphery in migration plans - but this shouldn't be the case.

In order to engineer this with equal parts power and precision, trusted third-party technologies based in the cloud can enable the wheels to keep turning by foregrounding two systems for any transformation: the system for centralising finance functions and that for centralising compliance.

Notoriously, global tax mandates can be convoluted and are in a perpetual state of flux. On top of this, they can be invasive in a company's business processes - and the repercussions of failing to comply have been starkly highlighted.

Moreover, mandates come attached with the scope to disrupt migration plans, increasing cost and causing delays in the process. For companies that depend on being able to continue selling goods and services into geographies where continuous compliance and tax enforcement are becoming increasingly complex, digital transformation of the financial core is essential - enter cloud technology.

The best approach is for tax compliance to be managed fully in the cloud by a relevant vendor, as this yields continuous compliance updates, investment in maintenance, infrastructure, and innovation that brings savings - not only monetary but also resources, including time and staff.

This is because the delivery of regulatory updates is automated, negating the need for manual intervention every time regulations change. Additionally, there are no nasty surprises for CTOs in terms of an unknown point solution running custom code in another country and delaying their migration to SAP S/4HANA.

Cutting to the heart of tax compliance

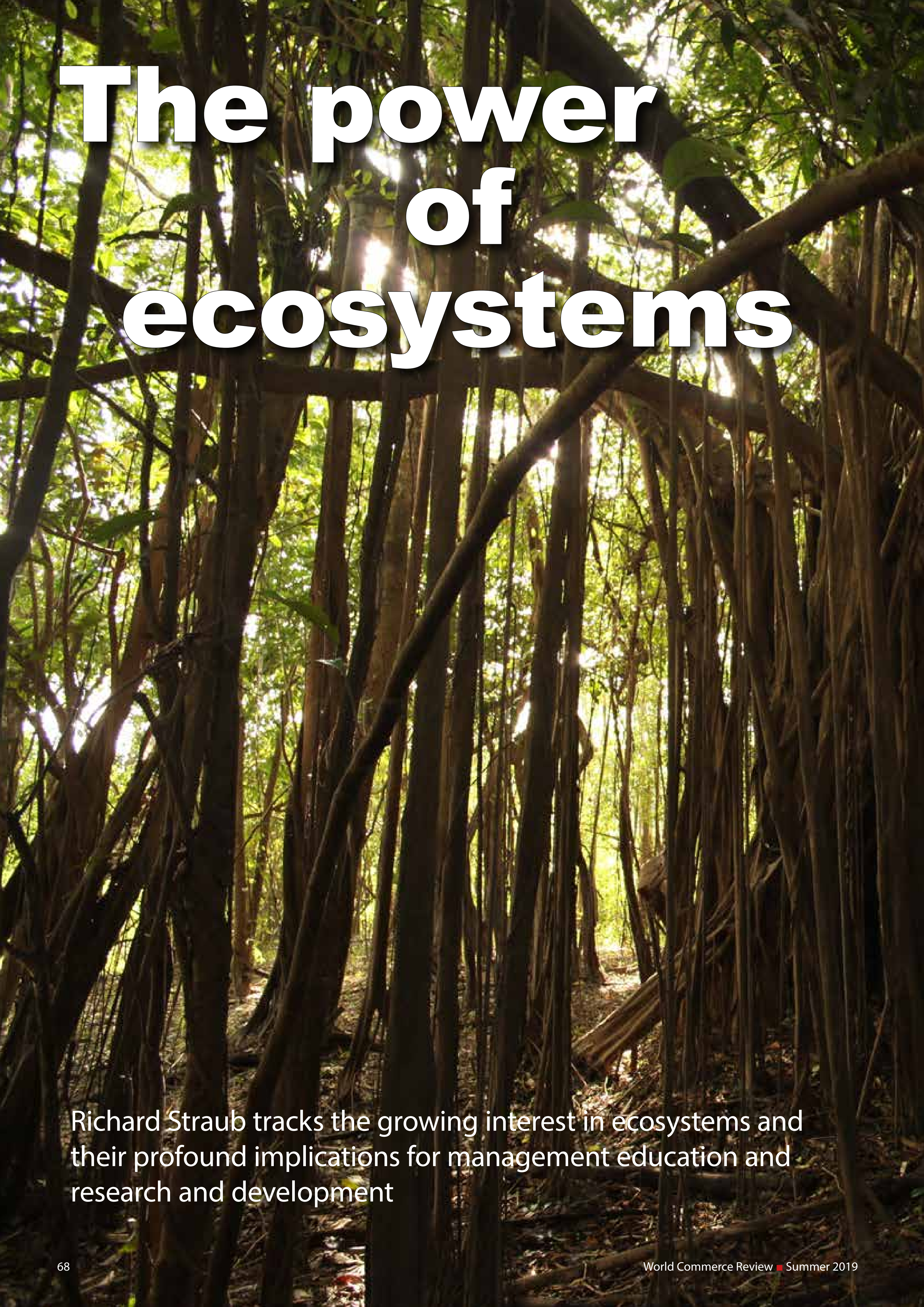
It's always going to be the case that, as a subject, tax compliance lends itself much more seamlessly to conversation than execution - but that's no excuse to take things slowly. Undeniably, the roadblocks of transitioning to SAP S/4HANA will be demanding enough without having to contend with compliance in-house in tandem.

Outsourcing tax compliance to a third-party in the cloud can fix this, isolating systems from ongoing disruption while enabling IT leaders within a business to focus on other crucial steps in the SAP Central Finance to S/4HANA digital transformation journey.

To this end, SAP advises that tax calculations should occur outside the SAP Central Finance system, in a source system before reposting into SAP Central Finance. Here, again, a trusted supplier with a cloud-based solution can silo amendments to tax mandates and automatically include them in Accounts Payable (AP), Accounts Receivable (AR), and disparate ERP systems, as well as in SAP Central Finance, as a business migrates data to the new repository.

Ultimately, in an age of abundant forms of digital transformation, organisations should now approach national tax authorities as key stakeholders in their core business processes. To achieve this, they must keep up with differing formats and continually changing tax compliance requirements.

As a result, the switch to SAP S/4HANA with Central Finance combined with a central modern tax compliance solution should form a portion of every company's odyssey to solve tax for good - perpetually vanquishing compliance headaches. ■



The power of ecosystems

Richard Straub tracks the growing interest in ecosystems and their profound implications for management education and research and development

Peter Drucker always said that his interest in management was an offshoot of his preoccupation with the evolving relationship between people and societal institutions – what he came to call the discipline of social ecology.

For Drucker, social, as opposed to biological, ecology, was about a new, man-made ecology of organisations and institutions. And it had a practical aim: to craft a balance between continuity on one side and change and innovation on the other. By spotting emerging trends, managers could act on and shape these forces to the benefit of wider society.

As usual, Drucker was ahead of the game. But the game has moved on as digital technology reshapes, resizes, speeds up and 'complexifies' the networks that make up the ecology we exist in today.

Interacting in complicated, non-linear, hard-to-predict ways, those forces are stretching the ecology in unexpected directions and dimensions. The complexity scientist Brian Arthur has written of a hidden semiautonomous 'second economy', powered by an external algorithmic intelligence, that is steadily encroaching on the physical economy and the jobs it provides.

As we struggle to make sense of these developments, the concepts of ecology and ecosystems can be doubly helpful. First, they give us a new means of plotting what is happening to organisations and industries as technology dissolves traditional boundaries and forges new links between them. A whole new research literature is growing up to describe and theorise this.

Second, the biological metaphor opens up new avenues for both understanding business as a dynamic, evolving force in society and reframing our thinking about management, replacing the mechanistic, Newtonian assumptions that have long dominated. In this view, organisations regain their long-suppressed identity as evolving human organisms rather than engineered machines. The implications for management education, research and development are profound.

Defining a new paradigm

The first essential in this new world is to establish a common language with robust and widely accepted definitions. For global consultancy McKinsey, an ecosystem is *"a complex network of interconnected businesses that depend on and feed on each other to deliver value for their customers, to the end users, and their key stakeholders."*

Taking it further, in a recent article John Fuller, Michael Jacobides and Martin Reeves speak of multi-entity groups of companies not belonging to a single organisation. They involve networks of shifting, semi-permanent relationships, linked by flows of data, services and money. The relationships combine aspects of competition and collaboration, often involving complementarity between different products and capabilities (for example, smartphones and apps).

Finally, in ecosystems, players co-evolve as they redefine their capabilities and relations to others over time. Clusters, groups

> *Whether natural or social, ecologies can develop pathologies or run out of control; whether we like it or not, they need managing, and in the case of man-made ones, managing them to minimise the bad and maximise the good is a moral duty*

of partly competing, partly collaborating small firms in the same area and industry, may have been the first identifiable proto-ecosystems.

Apple's IOS app community (now a multibillion-dollar business) showed how fast an ecosystem could scale from a digitally enabled platform, paving the way for many others.

Mobility, in which cars are one small on-demand component of the business of getting people from A to B, or C to X, is a much-discussed current example along with health, education and other services that meet the basic needs of individuals and organisations.

Over time, McKinsey sees traditional industry groupings and value chains collapsing into a smaller number of *"multitrillion-dollar-large ecosystems with a few large orchestrators, big winners, and a huge shift of wealth and value creation."*

Yet novel man-made ecosystems bring threats as well as opportunities. Like all major shifts, they create winners and losers. Whether natural or social, ecologies can develop pathologies or run out of control; whether we like it or not, they need managing, and in the case of man-made ones, managing them to minimise the bad and maximise the good is a moral duty.

We already perceive some of the emerging dangers. The network effects that underpin developing ecosystems to the benefit of both consumers and producers drive a self-reinforcing winner-takes-all dynamic that has already resulted in a few huge firms dominating swathes of the digital economy.

The ecological lens tells us that an entity that cannot stop growing at the expense of others is cancer that eventually kills the larger system it is part of. Could the same lens help us to develop smart regulation that would manage network effects without throwing the baby out with the bathwater – allowing the rapid scaling that is intrinsic to its value at the same time as preserving and promoting the vibrancy of a diverse ecosystem?

The challenge for management

What does all this mean for the practice of management in the 21st century? As we have noted, management theory and practice have long been based on a mechanistic view of the economy peopled by utility-maximising individuals working for profit-maximising companies – human robots and organisational machines.

Yet one of the laws of ecology is that there is no free lunch and all debts have to be paid. Human beings with their emotions, aspirations, dreams and idiosyncrasies do not take kindly to being treated as cogs in a machine; the price paid at the organisation level is disengagement, distrust and poor performance and at the level of the individual in stress, unhappiness and unfulfilled potential.

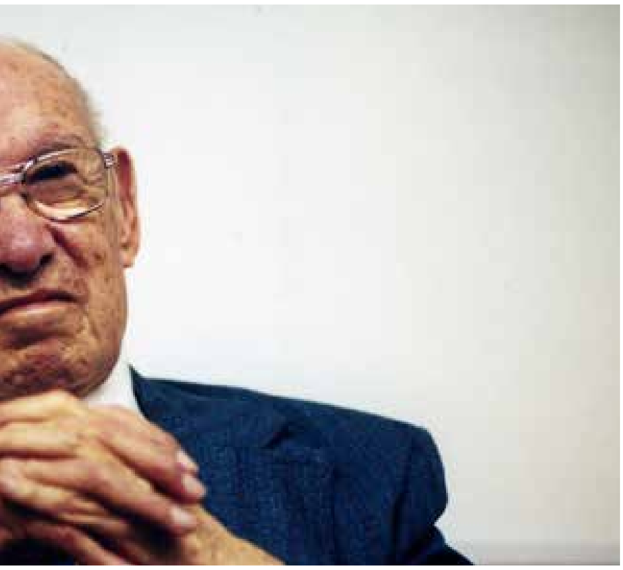
The rationalist dream of truly scientific management is a mirage. Recall Drucker's definition of management as a 'liberal art' – a far cry from the dry technocratic discipline of management research and education.

What applies at an individual level also holds good as we move up the system's ladder. This is an unfamiliar and challenging territory for most managers. Yet it is at the higher system levels that the greatest prizes beckon.

For example, an economy will function better as a system of incentives, regulations and the social technology of management are aligned with the interests of the broader society – which is manifestly not the case when the stock-market ecology in which large corporations operate is oriented wholly to shareholders at the expense of other stakeholders.

More tangibly, much attention these days focuses on the idea of innovation ecosystems, conceptualised as a kind of man-made evolutionary process. Fast-growing, constantly evolving internet giants such as Amazon, Facebook, Google, Alibaba and Tencent embody this idea. Yet 'analogue' and manufacturing firms are also learning to play on the terrain, leveraging brand and reputation assets to pivot towards ecosystems-based opportunities. Apple, Haier and BMW are good examples.

As in natural ecology, mid-sized and smaller firms can profitably create their own unique niches within the larger ones, using



specialisation and deep skills to outflank the data-based, algorithmic brute force of the giants. At the regional level, Silicon Valley is the ur-innovation ecosystem that every country would like to emulate, so far with varying success.

But the examples of Shenzen in China and Tel Aviv in Israel show that epicentres for innovation can be nurtured in very different environments. 'Smart city' initiatives to improve the lives of citizens are springing up everywhere.

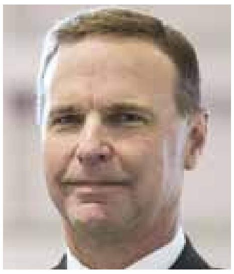
Understanding and building the capabilities to direct these novel entities is a formidable challenge for management. It demands a multi-stakeholder effort – an ecosystem in itself, in which the Drucker Forum is determined to play a part.

Major contributions will also be needed from academia in the shape of both economics departments and business schools, for which exploration of these new areas should provide a huge research impetus.

In the end it is not regulators and bureaucrats who will save the world but innovators and explorers in business, universities and the public sector aligning with society to shape a balanced, dynamic, social ecology for everyone to flourish in, not just wealth for a few – a historic challenge that we cannot afford to flunk. ■

ABOUT THE AUTHOR

Richard Straub is Founder and President, Global Peter Drucker Forum, and Associate Director, EFMD. This article was originally published in EFMD Global Focus, Issue 2 Volume 13



Conventions in 2019 showcase business aviation's exciting future

Ed Bolen is President and CEO the National Business Aviation Association (NBAA)

Business aviation continues to evolve before our eyes, as the industry embraces new technologies and looks to the exciting possibilities in its future. This forward-looking spirit is seen throughout an impressive roster of international events sponsored by the National Business Aviation Association (NBAA) including the recently concluded European Business Aviation Convention & Exhibition (EBACE) in Geneva.

Co-hosted by the European Business Aviation Association (EBAA) and NBAA, the 2019 edition of EBACE built upon its status as Europe's premier business aviation event with a show floor spanning three halls at Palexpo, featuring nearly 400 exhibitors, including 10 new to EBACE that were prominently located in the shows New Exhibitor Pavilion.

The packed halls were continuously filled with attendees representing more than 80 countries, who came to Geneva to network with their peers and learn about the latest issues and developments affecting business aviation across Europe and around the globe.

EBACE2019 also showcased a roster of future technologies, perhaps most notably sustainable flight and urban air mobility. The first-ever EBACE Innovation Pavilion featured three distinctive electric vertical takeoff and landing (eVTOL) aircraft

and concepts, while the adjacent Innovation Zone hosted a panel presentation on eVTOL and the urban air mobility revolution.

The EBACE Opening Keynote Session also looked to the industry's future with Volocopter CEO Florian Reuter, who described his company's eVTOL air taxi as *"the perfect complement and addition to business aviation."* Fellow keynote speaker Grant Shapps, UK Member of Parliament, called business aviation *"essential"* and predicted that EBACE, *"will be here in another decade's time with this exhibition bigger and more important than ever."*

EBACE among events highlighting innovation on 3 continents

While EBACE provided a clear look at the future of business aviation, it's important to note that innovation has long been a hallmark of other NBAA-sponsored events, including the annual Asian Business Aviation Conference & Exhibition (ABACE) and the association's own Business Aviation Convention & Exhibition (NBAA-BACE.)

Consider ABACE2019, held earlier this year in Shanghai, and jointly hosted by the NBAA and the Shanghai Airport Authority (SAA) and coordinated with the Asian Business Aviation Association (AsBAA). ABACE featured keynote addresses that examined the emerging role of eVTOL, as well as several urban air mobility vehicle concepts from companies across the region.

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"Widely regarded as the most important three days of business aviation, NBAA-BACE will bring together current and prospective aircraft owners, manufacturers and customers into one meeting place to get critical work accomplished, all while once again displaying the innovative spirit of this forward-looking global industry"

This technology also played an important part at last year's NBAA-BACE in Orlando, FL with two keynote addresses headlined by visionaries pioneering the future of business aviation.

Uber Elevate CEO Eric Allison shared the company's plans for fostering urban mobility, while Solar Impulse Chair Bertrand Piccard told his story of flying around the world without a drop of fuel. These presentations took place amidst a first-time immersive experience with the 2018 Collier Award-winning Cirrus Vision Jet on display, as well as an experimental flying car from Terrafugia.

EBACE continued this tradition of putting innovation at center stage, in part by promoting environmental sustainability and reducing business aviation's carbon footprint. For example, of the 58 aircraft at the EBACE2019 Static Display, 23 arrived at Geneva powered by sustainable alternative jet fuel (SAJF) as part of the inaugural EBACE SAJF 'fly-in'.

This milestone built upon the launch of the *Business Aviation Guide to the Use of Sustainable Alternative Jet Fuel (SAJF)* at last year's EBACE, which demonstrated the industry's support for development and adoption of the fuel. In another sign of the importance of SAJF, an industry-wide 'Fueling the Future' demonstration day was held at London TAG Farnborough Airport immediately before the opening of EBACE2019.

It's also clear that business aviation faces an ongoing challenge in attracting the next generation of industry professionals, which is why every NBAA-sponsored event includes a dedicated Careers in Business Aviation Day for area high school and college students who wish to learn about the industry and explore potential career opportunities.

A valued platform for product introductions, other news

Of course, EBACE2019 and other NBAA-sponsored industry events not only look to the industry's future. They also highlight the most exciting and innovative aircraft, products and services available today, making these events truly 'can't miss' opportunities where companies may introduce their latest offerings before an international audience.

The EBACE2019 static display included several 'firsts' among aircraft manufacturers: Bombardier's Global 7500 made its post-certification debut at EBACE, and Embraer displayed the new Praetor 600 aircraft for the first time since being certified in Europe, the US and Brazil. These aircraft were joined by the latest versions of such exciting aircraft as the Gulfstream G600, Airbus ACJ319 and Cirrus SF50 Vision G2.

Earlier this year, ABACE2019 hosted several major aircraft announcements, including the first international appearance of Bombardier's Global 7500 and the introduction of the new CBJ business jet from The Commercial Aircraft Corporation of China.

Last year, NBAA-BACE featured the unveiling of Embraer's Praetor 500 and 600 business jets, as well as the debut of an advanced electric-hybrid propulsion system for eVTOL aircraft from Honeywell.

Taking place October 22-24 in Las Vegas, NV, the 2019 edition of NBAA-BACE will once again showcase an extensive array of emerging, next-generation technologies and key new product introductions, as well as presentations and discussions about the latest developments and challenges facing the industry worldwide.

Widely regarded as the most important three days of business aviation, NBAA-BACE will bring together current and prospective aircraft owners, manufacturers and customers into one meeting place to get critical work accomplished, all while once again displaying the innovative spirit of this forward-looking global industry. These events all serve as important opportunities to witness the next stage of business aviation's ongoing evolution.

I encourage readers of *World Commerce Review* to attend future editions of ABACE and EBACE, and join the estimated 25,000 industry professionals who will attend NBAA-BACE later this year, to witness firsthand the many ways our industry continues to embrace new ideas, technologies and the promise of an and exciting future. ■