WORLD COMMERCE REVIEW

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XI JINPING CONSIDERS CHINA'S
JOURNEY OF REFORM AND
OPENING UP, AND FUTURE
MEASURES NEEDED FOR GROWTH

More digitalization will LEAD TO GREATER ECONOMIC GROWTH, THE INTERNATIONAL CHAMBER OF COMMERCE FIND

MARK CARNEY TAKES STOCK
OF THE PROGRESS MADE IN
ADDRESSING CLIMATE-RELATED
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Trade wars

he rising trade tensions of recent months have grabbed the headlines. The world's three largest economies are skirmishing around the brink of a global trade war. This dangerous development puts at risk the international trading system that underpins prosperity in the global economy.

Donald Trump's 'America first' agenda has put a spanner into the global trade works. The uncertainty has increased the risks of a 'tit-for-tat' retaliation, and the European Union, China and others have threatened to retaliate if the US implements tariffs. The United States is looking to rebalance the global trading system into something that does not rely on the US as a buyer of last resort.

However, a managed trade deal between China and the United States still looks the likely outcome. Although it might be better than a full-blown trade war, it will involve measures outside of the rules-based trading order, such as so-called voluntary export restraints. This could have significant negative spillovers to other countries, diverting trade and investment in ways that diminish global welfare, and exacerbate political tensions.

China's rise was always going to be difficult, and President Trump has raised the stakes and multiplied the risks. What can be done? The EU is, despite the rhetoric, morphing into a protectionist trade bloc, using trade agreements as a way of promoting European ideals around the world. This may be a difficult sale, particularly since peripheral EU member countries are becoming less centralist.

The multilateral trading system has been very effectively doing the job that it was created to do for many years, and trade is playing its part in supporting growth, development and job creation. The global trading system needs leadership that supports and expands the WTO-based foundations. Cooperation on trade is fundamental to the global economy we know today.

Asia needs to share the burden of trade leadership, and together with a free trade supporting United Kingdom post-Brexit, the open rules-based system could support economic prosperity and political security globally. Countries need to stand firm in the face of the threat to the global trade regime. The dynamic of global growth depends on remaining committed to the trade reform agenda, and encouraging entrenchment and deepening — including by China, the Southeast Asian economies and India — of the open rules-based international trading system.

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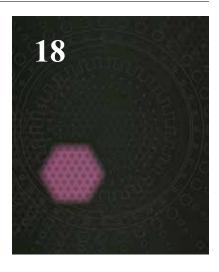
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Innovation, investment in focus at EBACE2018

NBAA remains committed to protecting and promoting the global development of business aviation. Readers are invited to attend events to experience the strength and scope of industry innovation



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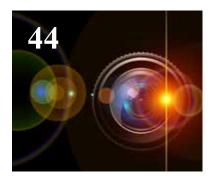
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THE ISLE OF MAN?



Openness for greater prosperity, innovation for a better future

Xi Jinping is General Secretary of the Communist Party of China and President of the People's Republic of China

here are certain historic occasions that empower us with the wisdom and strength to move forward. This year marks the 40th anniversary of China's reform and opening-up, and the 30th anniversary of the establishment of the Province and Special Economic Zone of Hainan. It is reform and opening-up that has given life and prosperity to Hainan, that has turned it from the once backward and remote island into one of China's most open and dynamic regions, and that has enabled Hainan to achieve phenomenal social and economic growth.

Just like the radiance of the sun is reflected by a drop of water, the development of a country may be epitomized by an individual region. Hainan stands as an important historical witness to China's reform and opening-up over the past four decades.

Thanks to the initiative of Deng Xiaoping, the Third Plenary Session of the 11th CPC Central Committee in 1978 marked the beginning of China's historic journey of reform and opening-up. Our endeavour started from rural areas to cities, from pilot programs to nationwide projects and from economic restructuring to the comprehensive deepening of reform. Reform and opening-up over the past four decades has made great impacts on China. With united and determined efforts,

the Chinese people have added a glorious chapter to the development epic of the country and the nation.

Over the last four decades, the Chinese people have significantly unleashed and enhanced productivity in China through hard work with an unyielding spirit. Heaven rewards those who work hard, and flowers in spring come to fruition in autumn. The focused endeavour in national development and unwavering commitment to reform and opening-up of the Chinese people have brought enormous changes to the country.

China has grown into the world's second largest economy, the largest industrial producer, the largest trader of goods, and the holder of the largest foreign exchange reserves. Over the past 40 years, China's GDP has averaged an annual growth rate of around 9.5% in comparable prices and its foreign trade has registered an annual growth of 14.5% in US dollars.

The Chinese people have emerged from a life of shortages and poverty and are now enjoying abundant supply and a moderately prosperous life. According to current UN standards, more than 700 million Chinese people have been lifted out of poverty, accounting for more than 70% of the global total over the same period.



Over the last four decades, the Chinese people have blazed a path of socialism with Chinese characteristics through determined exploration with a pioneering spirit. The Chinese people have both a keen awareness of national realities and a global vision. We champion independence and self-reliance while embracing openness and win-win cooperation. We uphold the socialist system while sticking to the direction of reform to develop the socialist market economy.

As we 'cross the river by feeling the stones', we have strengthened top-level planning. We have studied new circumstances, addressed new problems as they emerge and summed up experience accordingly, thus blazing a path of socialism with Chinese characteristics. The successful practice of the Chinese people is a proof that there is more than one path leading to modernisation. With the right direction and with unremitting efforts, all roads will take us to Rome.

Over the last four decades, the Chinese people have kept forging ahead and demonstrated the strength of the nation through keeping pace with the progress of the times. Ours is a truth-seeking nation with an open mind. Our efforts to open up our minds have advanced side by side with our endeavour of reform and opening-up. Our search for new ideas and experiment of practices have been mutually reinforcing.

Such is the great strength of a guiding vision. Ours is a nation that has courageously engaged in self-revolution and self-reform, constantly made improvements to the system of socialism with Chinese characteristics, and kept overcoming institutional and systematic obstacles to development. Such is the great strength of institutional guarantee. Ours is an enterprising and pioneering nation with unprecedented motivation, initiative and creativity. Such is the great strength of the 1.3 billion Chinese people driving history forward as masters of their nation and real heroes.

Over the last four decades, the Chinese people have embraced the world with open arms and actively contributed our share to the world. Reform and opening-up is a great process that has seen China and the world achieve development and progress together. The Chinese people have made openingup a fundamental national policy, pursued development with an open door, and accomplished a great transition from seclusion and semi-seclusion to all-round openness.

In this process, China has lived up to its responsibility as a major country. From 'bringing in' to 'going global', from WTO accession to the Belt and Road Initiative, China has made significant contribution to mitigating the Asian financial crisis and the global financial crisis. Contributing over 30% of global growth in recent years, China has become a key anchor and driver for the world economy and a positive force in advancing the noble cause of global peace and development.

Today, the Chinese people can say with great pride that reform and opening-up, China's second revolution if you like, has not only profoundly changed the country but also greatly influenced the whole world.

An ancient Chinese classic teaches that heaven has its own law and those who embrace it will prosper. China's reform and opening-up meets its people's aspiration for development, innovation and a better life. It also meets the global trend toward development, cooperation and peace. As such, China's reform and opening-up can and will be a great success!

Four decades of reform and opening-up has given us many valuable inspirations. The most important one is that for any country or nation to achieve rejuvenation, they must follow the logic of history and the trend of the times in their pursuit of progress and development.

The world is undergoing a new round of major development, great change and profound readjustment. Humankind still faces many instabilities and uncertainties. The new round of technological and industrial revolution brings fresh opportunities and presents unprecedented challenges.

In some countries and regions, people are still living in the shadow of war and conflict. A great many people, including the old, women and children, are suffering from hunger and poverty. Climate change and major communicable diseases remain formidable challenges. Humanity has a major choice



"The BRI may be China's idea, but its opportunities and outcomes are going to benefit the world. China has no geopolitical calculations, seeks no exclusionary blocs and imposes no business deals on others"

to make between openness and isolation, and between progress and retrogression.

In this complex and changing world, where are we headed and where is the future of Asia? To answer these fundamental questions of our time, we must not let our vision be blocked by floating clouds. Instead, we must dispel the clouds to see the sun, as we say in Chinese, so as to have a keen grasp of the law of history and the trend of the world.

We live at a time with an overwhelming trend toward peace and cooperation. In a world aspiring for peace and development, the cold-war and zero-sum mentality looks even more out of place. Putting oneself on a pedestal or trying to immune oneself from adverse developments will get nowhere. Only peaceful development and cooperation can truly bring win-win or all-win results.

We live at a time with an overwhelming trend toward openness and connectivity. Human history shows that openness leads to progress while seclusion leaves one behind. The world has become a global village where our interests are intertwined and our economic and social progress interconnected. To promote common prosperity and development in today's world, we have no choice but to pursue greater connectivity and integrated development.

We also live at a time with an overwhelming trend toward reform and innovation. A Chinese philosopher recognized as early as over 2,500 years ago that one doesn't have to follow a beaten path if he wishes to benefit the people and one doesn't have to observe old conventions if he wishes to get things done. Reform and innovation are the fundamental driving force of human progress. Those who reject them will be left behind and assigned to the dustbin of history.

To follow the trend of our times and advance the well-being of all people, I proposed the initiative to build a community with a shared future for mankind and I have since had many in-depth discussions with various parties. I am glad that this proposal has been welcomed and endorsed by a growing number of countries and their peoples. It has also been written into important UN documents. I hope that people around the world will work together toward this community with a shared future for mankind and make Asia and the world peaceful, tranquil, prosperous, open and beautiful.

With the future in mind, we need to treat each other with respect and as equals. We should uphold the five principles of peaceful coexistence, respect the social system and development path independently chosen by each country, respect each other's core interests and major concerns, and follow a new approach to state-to-state relations featuring dialogue rather than confrontation, and partnership instead of alliance.

We must refrain from seeking dominance and reject the zerosum game. We must refrain from beggar-thy-neighbour and reject power politics or hegemony with the strong bullying the weak. Instead, we must properly manage differences and work together for enduring peace.

With the future in mind, we need to promote dialogue and share responsibility. We should act on the vision of common, comprehensive, cooperative and sustainable security, and firmly uphold the international order and system underpinned by the purposes and principles of the UN Charter.

An integrated approach should be taken to counter traditional and non-traditional security challenges, and coordination should be enhanced both bilaterally and multilaterally. We must ensure that various security mechanisms coordinate with each other in an inclusive and complementary manner rather than undercut each other. This will lead us to universal and common security.

With the future in mind, we need to engage in cooperation for win-win results. We should stay committed to openness, connectivity and mutual benefits, build an open global economy, and reinforce cooperation within the G20, APEC and other multilateral frameworks. We should promote trade and investment liberalization and facilitation, uphold the multilateral trading system, and jointly foster new technologies, new industries and new forms and models of business. This way, we will make economic globalization more open, inclusive, balanced and beneficial to all.

With the future in mind, we need to uphold inclusiveness and seek harmony without uniformity. We must strengthen bilateral and multilateral cooperation in culture, education, tourism, youth, media, health, poverty reduction and other fields. We need to promote mutual learning among civilizations as it will help us build bridges of friendship, drive social progress, and safeguard peace for the region and beyond.

With the future in mind, we need to treat nature with respect and treasure our planet. It is important to have a vision of green, low-carbon and sustainable development, and respect, accommodate and protect nature. We need to increase exchanges and cooperation, share experience and jointly meet challenges in climate change, environment protection, energy conservation and emission reduction. We must pursue further progress along the path of sustainable development featuring increased production, higher living standards and healthy ecosystems so that our future generations can enjoy blue skies, clear water and lush mountains.

The 19th CPC National Congress held last October ushered socialism with Chinese characteristics into a new era and drew a blueprint for turning China into a great modern socialist country in all respects. This new era of socialism with Chinese



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characteristics marks a new chapter in China's rejuvenation and its effort for shared prosperity with the rest of the world.

Each age and generation have their own challenges and missions. China has come a long way, but it has to overcome new challenges on its way ahead. In this new era, the Chinese nation will continue to improve itself through reform. We will stay committed to advancing reform in all respects, and prevail over whatever challenges that may lie ahead. We will tackle long-standing problems with courage and resolve, and break the impediments of vested interests to see the reform through.

The Chinese people will continue to take bold steps in innovation to boost development. Following the people-centered development philosophy and the new development vision, we will modernize our economic system, deepen the supply-side structural reform, and implement at a faster pace the strategies of innovation-driven development, rural revitalization and coordinated regional development. We will continue to work on targeted poverty alleviation and promote social equity and justice to give our people a greater sense of fulfillment, happiness, and security.

The Chinese people will continue to increase openness and expand cooperation. We will stay committed to the strategy of opening-up for win-win results. We will pay equal attention to 'bringing in' and 'going global', and break new ground in opening China further through links running eastward and westward, across land and over sea. We will adopt policies to promote high-standard liberalization and facilitation of trade and investment, and explore the opening of free trade ports with Chinese characteristics.

The Chinese people will continue to work together with the rest of the world and make greater contribution to humanity. China will stick to the path of peaceful development, actively pursue global partnerships, firmly support multilateralism, and take an active part in reforming the global governance system. By doing so, we will be able to build a new type of international relations and promote a community with a shared future for mankind.

No matter how much progress China has made in development, China will not threaten anyone else, attempt to overturn the existing international system, or seek spheres of influence. China will stay as determined as ever to build world peace, contribute to global prosperity and uphold the international order.

A comprehensive study of world development trajectories shows that economic globalization is an irreversible trend of our times. In line with this conclusion, I emphasized in my report to the 19th CPC National Congress that China will continue to adhere to its fundamental national policy of opening-up and pursue development with its door wide open. I wish to make it clear to all that China's door of opening-up will not be closed and will only open even wider!

What has happened proves that opening-up was key to China's economic growth over the past 40 years and in the same vein, high-quality development of China's economy in the future can only be achieved with greater openness. Opening-up is a strategic decision made by China based on its need for development as well as a concrete action taken by China to move economic globalization forward in a way that benefits people across the world.

China will adopt the following major measures to pursue further opening:

• First, we will significantly broaden market access. A number of landmark measures are to be launched this year. On services, financial services in particular, important announcement was made at the end of last year on measures to raise foreign equity caps in the banking, securities and insurance industries.

We will ensure that these measures are materialized and at the same time make more moves toward further opening, including accelerating the opening-up of the insurance industry, easing restrictions on the establishment of foreign financial institutions in China and expanding their business scope, and opening up more areas of cooperation between Chinese and foreign financial markets.

On manufacturing, we have basically opened up this sector with a small number of exceptions on automobiles, ships and aircraft. Now these industries are also in a position to open up. Going forward, we will ease as soon as possible foreign equity restrictions in these industries, automobiles in particular.

• Second, we will create a more attractive investment environment. Investment environment is like air, and only fresh air attracts more investment from the outside. China relied mainly on providing favourable policies for foreign investors in the past, but now we will have to rely more on improving the investment environment.

We will enhance alignment with international economic and trading rules, increase transparency, strengthen property rights protection, uphold the rule of law, encourage competition and oppose monopoly. We established a host of new agencies such as the State Administration for Market Regulation as part of a major readjustment of government institutions this past March, the purpose of which is to remove the systematic and institutional obstacles that prevent the market from playing a decisive role in resources allocation and enable the government to better play its role.

In the first six months of this year, we will finish the revision of the negative list on foreign investment and implement across the board the management system based on preestablishment national treatment and negative list.

• Third, we will strengthen protection of intellectual property rights (IPR). This is the centerpiece of the system for improving property rights protection, and it would provide the biggest boost to the competitiveness of the Chinese economy. Stronger IPR protection is the requirement of foreign enterprises, and even more so of



Chinese enterprises. This year, we are re-instituting the State Intellectual Property Office to strengthen the ranks of its officers, step up law enforcement, significantly raise the cost for offenders and fully unlock the deterrent effect of relevant laws.

We encourage normal technological exchanges and cooperation between Chinese and foreign enterprises, and protect the lawful IPR owned by foreign enterprises in China. At the same time, we hope foreign governments will also improve protection of Chinese IPR.

• Fourth, we will take the initiative to expand imports. Domestic demand is the fundamental driving force for China's economic development, and it is an essential requirement for us to meet the people's ever-growing need for a better life.

China does not seek trade surplus; we have a genuine desire to increase imports and achieve greater balance of international payments under the current account. This year, we will significantly lower the import tariffs for automobiles and reduce import tariffs for some other products. We will import more products that are competitive and needed by our people. We will seek faster progress toward joining the WTO Government Procurement Agreement.

We hope developed countries will stop imposing restrictions on normal and reasonable trade of high-tech products and relax export controls on such trade with China. This November, we will hold the first China International Import Expo in Shanghai. It is not just another expo in an ordinary sense, but a major policy initiative and commitment taken of our own accord to open up the Chinese market. Friends from around the world are welcome to participate in the Expo.

I wish to emphasize that with regard to all those major initiatives of opening-up that I have just announced, we have

every intention to translate them into reality, sooner rather than later. We want the outcomes of our opening-up efforts to deliver benefits as soon as possible to all enterprises and people in China and around the world.

I am confident that with these efforts, China's financial sector will be much more competitive, our capital market will continue to enjoy healthy development, the building of a system of modern industries will be accelerated, our market environment will be greatly improved, and intellectual property rights will be effectively protected. In short, China will enter a new phase of opening-up.

Five years ago, I put forward the Belt and Road Initiative (BRI). Since then, more than 80 countries and international organizations have signed cooperation agreements with China. The BRI may be China's idea, but its opportunities and outcomes are going to benefit the world. China has no geopolitical calculations, seeks no exclusionary blocs and imposes no business deals on others.

It must be pointed out that as the BRI is a new initiative, it is perfectly natural for there to be different views. As long as the parties embrace the principle of extensive consultation, joint contribution and shared benefits, we can surely enhance cooperation and resolve differences. This way, we can make the BRI the broadest platform for international cooperation in keeping with the trend of economic globalization and to the greater benefit of all our peoples.

As a Chinese saying goes, "A mountain is formed by accumulation of earth and an ocean is formed by accumulation of water." Happiness and a bright future will not appear automatically; success only favours those with courage and perseverance.

Let us dedicate ourselves to openness and win-win outcomes, be brave to change and break new ground, and keep striving for a community with a shared future for mankind and a better tomorrow for Asia and the world.



A transition in thinking and action

Mark Carney is Governor of the Bank of England

will take stock of the progress made in addressing climaterelated financial risks since the Paris Agreement of late 2015. In particular, I will consider how far there has been *a transition in thinking and action*. The thinking has coalesced around three channels through which climate risk affects financial stability:

- the physical risks that arise from the increased frequency and severity of climate- and weather- related events that damage property and disrupt trade;
- the liability risks stemming from parties who have suffered loss from the effects of climate change seeking compensation from those they hold responsible; and
- the transition risks that can arise through a sudden and disorderly adjustment to a low carbon economy.

The last risk is the most challenging. When I first spoke about the financial stability risks from climate change, at Lloyd's of London in 2015, I highlighted two paradoxes relating to transition risk in particular¹.

First, the future will be past. That is, climate change is a tragedy of the horizon which imposes a cost on future generations that the current one has no direct incentive to fix. The catastrophic impacts of climate change will be felt beyond the traditional horizons of most actors. Once climate change becomes a clear and present danger to financial stability it may already be too late to stabilise the atmosphere at two degrees.

The second paradox is that success is failure. That is, too rapid a movement towards a low-carbon economy could materially damage financial stability. A wholesale reassessment of prospects, as climate-related risks are re-evaluated, could destabilise markets, spark a pro-cyclical crystallisation of losses and lead to a persistent tightening of financial conditions: a climate Minsky moment.

The tragedy of the horizon can be resolved in an orderly, effective and productive manner, however, with early transitions in thinking and action.

A transition in thinking

Since 2015, a transition in *thinking* has taken place. At the One Planet Summit in Paris in 2017, financial institutions

responsible for managing US\$80 trillion of assets – equivalent to annual global GDP – publicly supported the Task Force for Climate-related Disclosures (TCFD)².

The supporters included 20 globally-systemic banks, 8 of the top 10 global asset managers, the world's leading pension funds and insurers, the largest sovereign wealth fund and the two dominant shareholder advisory service companies.

Established by the Financial Stability Board (FSB) in response to a call from G20 Leaders, the TCFD delivered



recommendations for voluntary disclosures of material, decision-useful climate-related financial risks for the G20 Summit in Hamburg. Suitable for use by all companies that raise capital, the recommendations:

- include disclosure of governance and risk management arrangements;
- establish consistent and comparable metrics applicable across all sectors, as well as specific metrics for the most carbon-intense sectors; and
- encourage use of scenario analysis so as to consider dynamically the potential impact of the risks and opportunities of the transition to a low carbon economy on strategy and financial planning.

That financial institutions have come out so strongly in support of enhanced disclosure reflects their recognition that there is a correlation between managing climate risk and long-term value creation as well as their belief in the power of markets.

They know that for markets to do what they do best – allocate capital effectively and dynamically – they need the right information. When risks are unknown or ill-defined, the

"... it is encouraging that central banks and supervisors have come together to found the Network for Greening the Financial System (NGFS) to take forward coordination"

market cannot allocate resources in an efficient and profitable manner.

Until recently, reliable information on how companies were anticipating, responding or failing to respond to climate-related risks and opportunities has been hard to find, inconsistent and fragmented. The information needed goes beyond the static to the strategic. Markets need information to assess which companies are well positioned to seize the opportunities the transition to a low carbon economy brings.

Which car manufacturers are leading the way on fuel efficiency and electrification? How are energy companies adapting their mix of energy sources? This needs to be considered against

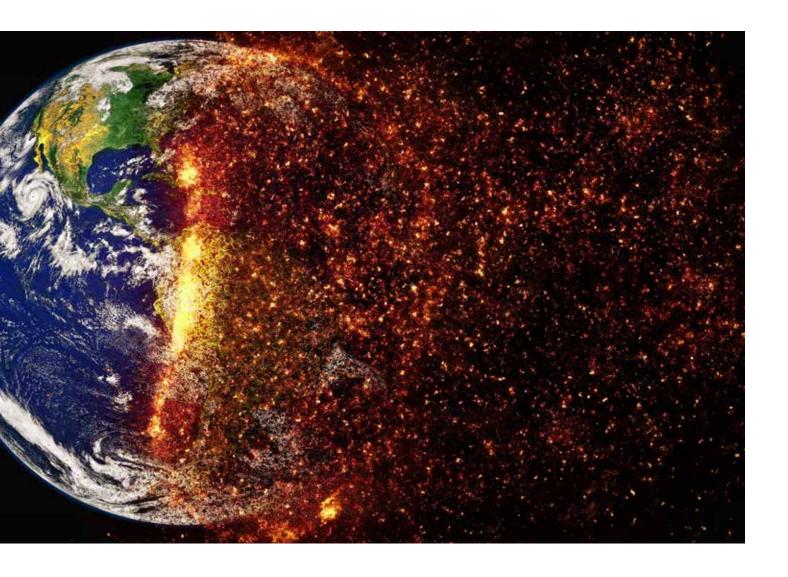
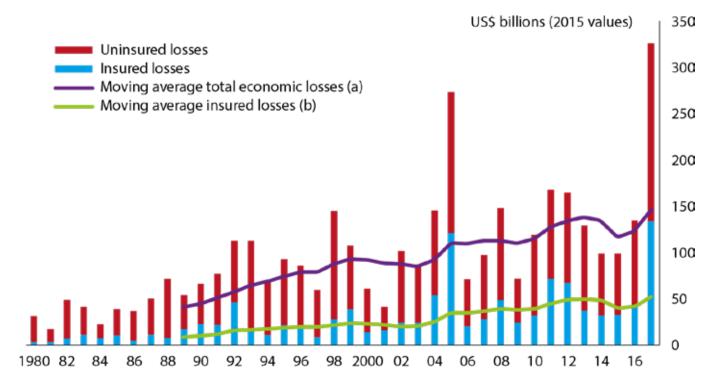


Chart 1. Weather-related losses worldwide (1980-2017)



(a) Total Economic Losses = Insured + Uninsured losses. (b) 10-year moving average Source: Munich Reinsurance Company, Geo Risks Research, NatCatSERVICE

investors' views of possible transition paths – the International Energy Agency's Sustainable Development Scenario, for example, sees the consumption of natural gas rise by nearly 20% by 2030 to become the largest single fuel in the global mix³.

Given the uncertainties around climate, not everyone will agree on the timing or scale of the adjustments required. And different people will have different views about the effectiveness of timelines of government climate policies. The right information allows sceptics and evangelists alike to back their convictions with their capital.

At the same time as this increased investor focus, there have been signs that global companies are becoming increasingly aware of the risks climate change can pose. Whereas in previous years it barely registered as a risk, now close to a third of global CEOs are 'extremely concerned' about the threat climate change poses to their organisation's growth prospects⁴.

A transition in action

So how far is this transition in thinking translating into action? <u>First, governments</u>. In reaching agreement in Paris, global leaders took *political action* to mitigate the catastrophic impact of climate change.

They committed to curbing carbon emissions to limit the rise in global average temperatures relative to those in the pre-

industrial world to 2°C, and to pursue additional efforts to limit the temperature increase to 1.5°C.

Governments are taking some of the necessary policy actions. For example, in the UK, the Government published its Clean Growth Strategy last year, including policies to make homes, businesses and transport more energy efficient, and to lower the carbon intensity of the UK's energy supply. EU Emissions Trading Scheme (ETS) reforms agreed last year, and due to come into effect from 2021, have driven carbon prices above €10 per tonne for the first time in six years.

Even so, the national determined contributions towards meeting the Paris goals, summed to no more than 2.7°C, making it clear climate policy will need to tighten further if the Paris commitments are to be achieved. Second, climate disclosures. There has been a series of actions to transform climate disclosures. 2017 was a record year for climate-related shareholder resolutions, with a threefold increase in motions (184 vs 63) and with investment managers controlling over 45% of global assets under management backing shareholder actions on carbon disclosure.

Several of the world's largest asset managers – including the two largest, Blackrock and Vanguard – have written to a number of public companies calling for such disclosures. Other long-term investors have joined forces to press for disclosure through groups such as Climate Action 100+ and the International Investors Group for Climate Change (IIGCC).

Meanwhile ISS and Glass Lewis, who account for over 90% of the shareholder advisory services market, have updated their 2018 proxy voting policies to make clear that they will assess the adequacy of climate disclosure⁵.

With the providers of capital demanding enhanced disclosure, and the TCFD recommendations providing a framework for doing so, a number of public companies have begun disclosing their climate-related financial risks for the 2017/18 year end. Reporters drawing on the TCFD include energy giants and extractors through to financials and consumer goods companies.

The Task Force is delivering two initiatives to support this process. First, in time for the Argentine G20 Summit, drawing on the work of the Big Four accounting firms, the Task Force will report on implementation experience, focusing on examples of good practice to foster wider adoption.

Second, the Task Force is launching a Resource Hub to provide technical support, data, and collaborative partnerships – all aimed at helping companies implement the recommendations in as effective and efficient a manner as possible.

As preparers, financials and investors 'learn by doing', a virtuous cycle will be created where more and better information creates the imperatives for others to adopt the TCFD and for everyone to up their game on the quality of information they provide.

This iterative process is a reason why there is likely cause for the Task Force to continue beyond the Argentine Summit in late 2018 and into the Japanese presidency. In particular, it will be important to get feedback from investors on which disclosures are truly decision useful so that this process is as efficient and effective as possible.

<u>Third, insurers and banks</u>. Insurers have long been on the front line of the physical risks posed by climate change such as extreme weather events.

Since the 1980s, the number of registered weather-related loss events has tripled. Inflation-adjusted insurance losses have increased from an annual average of around US\$10 billion in the 1980s, to around US\$55 billion over the past decade (Chart 1). General and reinsurers insurers have long deployed sophisticated modelling of climate and weather-related physical risks, and have adjusted their cover and business models accordingly.

Lloyd's of London underwriters, for example, are required to consider climate change explicitly in their business plans and underwriting models. Their genius has been to recognise that the past is not prologue and that the catastrophic norms of the future are in the tail risks of today.

For example, by holding capital at a one-in-200 year risk appetite, under a forward-looking capital regime, UK insurers were able to withstand the events of 2017, the worst year on record for weather-related insurance losses at around US\$130 billion.

Given evidence that suggests increasing levels of physical risk, insurers will need to consider the potential impact of more intense and clustered weather-related events. Work by Bank colleagues finds that intense hurricanes, of the type most likely to cause large insurance losses, seem to be getting more frequent and the chance of two or more intense hurricanes occurring close together may be higher than previously thought⁶. So improvements in insurers' risk modelling must be unrelenting.

While the ability to re-price annually or to withdraw cover can mitigate risks to general insurers in the short-term, as climate change progresses, they will need to consider the longer-term impacts on their business models.

And as the PRA found a few years ago in its review of the sector, insurers need to be wary of cognitive dissonance within their organisations whereby risks that are managed prudently by their underwriters are ignored by the firm's asset managers, such as in their real estate exposures⁷.

Consistent with the tragedy of the horizon, the risks posed to banks from climate change have tended to be beyond their planning horizons. A recent survey by the PRA of banks accounting for around 90% of the UK banking system, found that these horizons averaged four years – before physical and litigation risks would be expected to manifest, and prior to stringent climate policies likely taking effect.

There are signs, however, that banks are beginning to treat climate-related risks like other financial risks. The PRA survey finds that a majority of banks now see them as financial risks – rather than just a reputational or corporate social responsibility issues. As such, oversight of climate-related risks and overall responsibility for setting the climate risk strategy, targets and risk appetite has been elevated to Board level.

Banks have begun considering the most immediate physical risks relevant to their business models – from the exposure of mortgage books to flood risk or, for globally active banks, the impact of extreme weather events on country risk.

And they have begun to assess exposures to transition risks where government policy is already pulling forward the adjustment. This includes exposures to carbon-intensive sectors, consumer loans secured on diesel vehicles and buy-to-let lending given new efficiency requirements.

But many banks have indicated that there is some way to go to identify and measure climate- related risks more comprehensively, including given the need to improve data and expertise. This includes developing their approaches to stress testing for climate-risks as well as, over longer horizons, more dynamic scenario analysis. It is clear, however, that the TCFD framework is helping, including to identify metrics and promote use of climate-related scenario analysis.

<u>Fourth, financial policymakers</u>. At the Bank of England, the risks posed by climate change are currently most directly relevant to our micro prudential responsibilities for the

safety and soundness of the banking and insurance sectors. Assessing how well general insurers and reinsurers are identifying, measuring and mitigating weather-related risks, has long been part of supervising insurers. We published a stocktake of insurers' progress in adapting to climate change in late 2015, and are working to update and deepen our assessment with a second stocktake in 2018.

More recently, we have extended our focus to the financial risks faced by the UK banking system, and will publish the full results of the survey I referred to in the coming months.

The aim for both pieces of work is to consider whether insurers and banks have adequate governance arrangements to develop strategies for identifying and mitigating climate risk across their entire businesses, both their liabilities and assets, and over sufficiently long-time horizons. We aim to highlight examples of good practice and to articulate our supervisory expectations later this year.

We are also considering our approach to assessing risks across the system as a whole. The Bank has routinely included weather-related shocks in the scenarios for its biennial general insurance stress test, including three North American hurricanes in 2017. This meant we had a good sense of the likely resilience of the market and individual firms when Harvey, Irma and Maria hit – both in terms of exposures and mitigating actions⁸.

On climate, remember, past is not prologue. In the depressing spirit of Bayesian updating that the current climate change trajectory demands, when considering scenarios for 2019, that we include weather-related events that are more severe and clustered.

To help firms improve their own testing, the Bank has been encouraging knowledge sharing on the types of scenario analysis envisaged under the TCFD⁹. This will allow firms to explore how 2°C and other transition scenarios might impact their strategy and financials.

More broadly, and like the other financial authorities represented here today, we recognise the value in sharing expertise and best practice to increase the rate at which firms, and indeed ourselves as regulators, move to embed more thoroughly climate-related financial risks into our risk assessment and mitigation.

Conclusion

Given this heavy agenda, it is encouraging that central banks and supervisors – from eight countries that together account for over a third of both global financial assets and carbon emissions – have come together to found the Network for Greening the Financial System (NGFS) to take forward coordination.

There are, however, limits to our roles. Financial policymakers will not drive the transition to a low- carbon economy. Our efforts cannot substitute for those of governments who have direct responsibilities to deliver the policies to achieve their Paris commitments.

The good news is that governments are now establishing the policy frameworks, and the private sector is beginning to allocate capital accordingly.

Our efforts will help smooth the transition prompted by these actions. With better information and risk management as the foundations, a virtuous circle is being built with better understanding of tomorrow's risks, better pricing for investors, better decisions by policymakers and a smooth transition to a low carbon economy.

Financing the transition to a low carbon economy is a major opportunity for investors and creditors. It implies a sweeping technological revolution, including investments in long-term infrastructure at roughly quadruple the current rate. Climate finance and risk management is moving into the mainstream. There has been a transition in thinking. And this is now beginning to be translated into action, and the NGFS will play an important role in this.

Endnotes

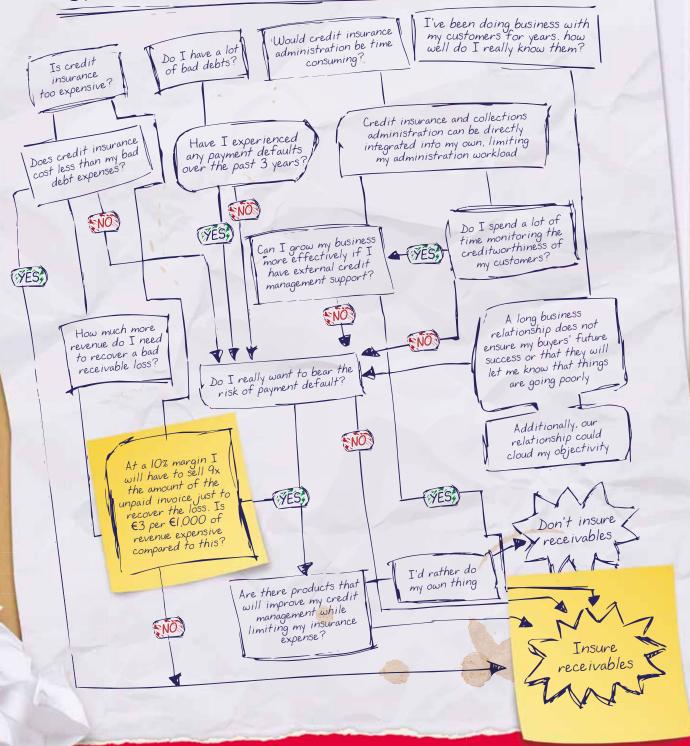
- 1. See Carney (2015), "Breaking the Tragedy of the Horizon climate change and financial stability", speech given at Lloyd's of London, September 2015.
- 2. For a full list of current supporters see: https://www.fsb-tcfd.org/tcfd-supporters-april-2018/ and supporters at the Paris Summit see: https://www.fsb-tcfd.org/wp-content/uploads/2017/12/TCFD-Press-Release-One-Planet-Summit-12-Dec-2017_FINAL.pdf
- 3. It also sees US\$69 trillion of investment in clean energy technologies and energy efficiency and the share of oil and coal in power generation falls to 6%, which is burned with accompanying carbon capture and storage technology.
- 4. See PWC (2018), 21st CEO Survey, The Anxious Optimist in the Corner Office, https://www.pwc.com/gx/en/ceo-survey/2018/pwc-ceo-survey-report-2018.pdf 5. See ISS, (2018), United States Proxy Voting Guidelines, Benchmark Policy Recommendations, and Glass Lewis, (2018), Guidelines: An Overview of the Glass Lewis Approach to Proxy Advice.
- 6. Bank Underground post, forthcoming.
- 7. See PRA (2015), The Impact of Climate Change on the UK Insurance Sector, https://www.bankofengland.co.uk/prudential-regulation/publication/2015/the-impact-of-climate-change-on-the-uk-insurance-sector
- 8. https://www.bankofengland.co.uk/prudential-regulation/letter/2017/general-insurance-stress-test-2017-feedback
- 9. This included co-hosting a conference with TCFD in late 2017. For further details see: https://www.fsb-tcfd.org/event/tcfd-boe-conference-climate-scenarios-financial-risk-strategic-planning/

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Based on a speech given at International Climate Risk Conference for Supervisors, De Nederlandsche Bank, Amsterdam, 06 April 2018

Don't overcomplicate your decision about whether to use credit insurance

SHOULD I INSURE MY RECEIVABLES?



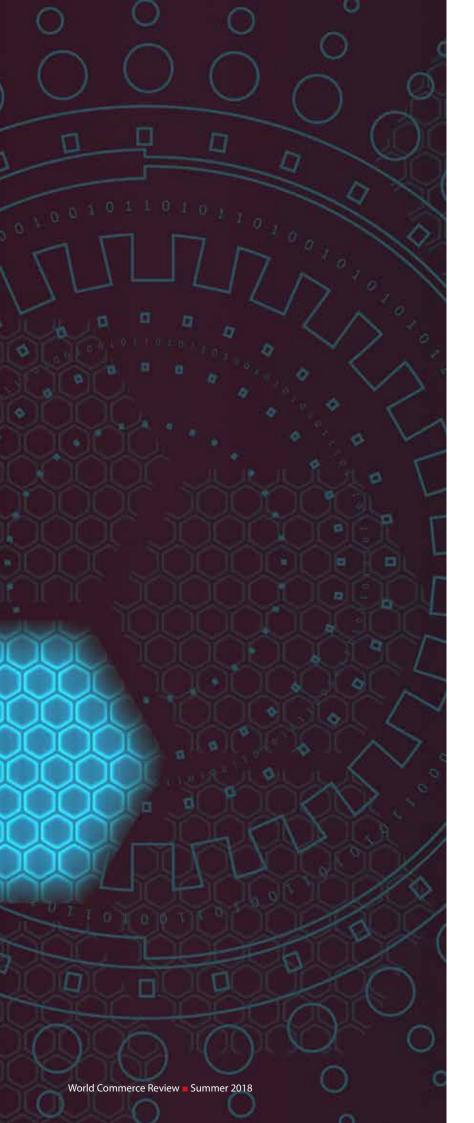
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PACE OF TRADE FINANCE DIGITALIZATION

International Chamber of Commerce's Global Survey shows a move to greater digitalization, and believe that this will lead to a boost in economic growth and sustainable development



igital technologies, from big data to blockchain, are transforming the global trade finance industry, bringing in a new generation of players and business models and driving the movement towards paperless trade. But while the International Chamber of Commerce's (ICC) 10th annual *Global Survey* shows that 60% of banks are moving towards greater digitalisation, only 9% said technology solutions had so far increased efficiency.

From its creation ten years ago, the *Global Survey* has offered a snapshot of the many challenges and opportunities facing the trade finance industry and, most importantly, puts these trends in their private sector context. To take digitalisation for example, the *Global Survey* moves beyond the much-heralded forecasts of how ripe trade finance is for digital disruption to assess the extent to which banks around the world are actually going paperless on the ground. A better view of where businesses are at, will allow public and private stakeholders to more effectively drive sustainable growth for trade finance in the 21st century.

Over 60% of banks surveyed in the new ICC report—*Global Trade: Securing Future Growth*—reported to have implemented, or to be in the process of implementing, technology solutions to digitalise their trade finance operations.

However, only 9% of banks reported that the solutions implemented have so far led to a reduction of time and costs in trade finance transactions, in what the report describes as a 'reality check'. 30% of respondents say their banks remain 1-2 years away from implementing technology solutions while 7% say digitalisation is not on their agenda at all.

A heavily paper-based industry with transactions worth over US\$9 trillion in 2017, trade finance is often noted to be ripe for digital disruption. The multitude of documents and players (banks, customs authorities, shippers, and insurers, among others) involved in trade finance transactions, though, make it difficult for the industry to digitalise quickly.

65% of respondents say that physical paper has to some extent been removed in the issuance/advising and settlement/financing of documentary transactions. A notable exception is the document verification process, where 52% of respondents say that paper has not been removed at all.

ICC Secretary General John WH Denton AO said: "Digitalisation in the trade finance sector will boost economic growth, and sustainable development.

Digitalisation will make trade more inclusive. The ICC Global Survey gives us invaluable insight into the practical experiences and real challenges of business as we seek to take advantage of game-changing technologies and advance these broader shared goals."

Conducted annually, the ICC Global Survey report is the world's most authoritative review of the trade finance industry, based on exclusive information from over 250 banks in more than 90 countries. The survey results are bolstered by contributions from an international array of leading voices on trade and finance, including experts from the World Bank, the Boston Consulting Group (BCG) and the World Trade Organization.

An industry ripe for disruption

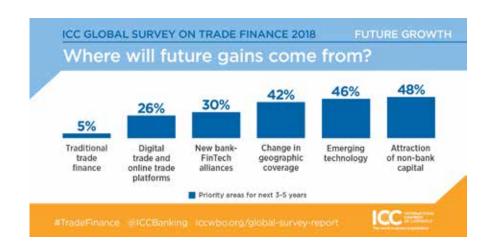
A single trade finance transaction can require over 100 pages of documents, with an estimated four billion pages of documents currently circulating in documentary trade. According to BCG estimates, digitalisation could cut trade finance costs by up to US\$6 billion in 3-5 years and boost banks' trade finance revenues by 10%.

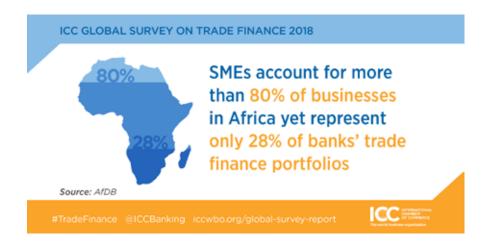
The ICC Global Survey figures demonstrate that a majority of banks are moving towards greater digitalisation, recognising its potential gains, yet only a minority have so far seen technology solutions increase their operational efficiency.

"Adapting global trade finance rules to the digital era will play a pivotal role in enabling banks to capitalise on new technologies," said Olivier Paul, Head of Policy at ICC's Banking Commission, which launched a digitalisation working group¹ in June 2017. "ICC rules underpin over US\$1 trillion of transactions each year. Now, we are working to both ensure these rules are 'e-compatible' and establish a set of standards to enable digital connectivity for trade finance service providers."

Bullish on future growth despite compliance concerns

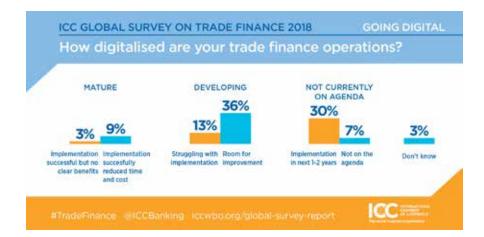
Among the many other *Global Survey* findings, responses show that banks are bullish on future trade finance growth trends. Nearly three quarters of banks presented an optimistic outlook for the next 12 months, with respondents headquartered in Africa and Asia Pacific the most positive, at 89% and 81% respectively.







ICC GLOBAL SURVEY ON TRADE FINANCE 2018 Top 4 factors constraining banking growth in Africa: Lack of Insufficient limits Inadequate Regulatory from international and compliance sufficient foreign exchange risk capital correspondent liquidity restrictions banks (18%) Source: AfDB ICC



Looking ahead into the medium and longer term, only 5% of respondents consider traditional trade finance a strategic area of focus in the next 3-5 years. In contrast, 72% consider traditional trade finance a priority in the next 12 months.

Nearly half of respondents agreed that attracting non-bank capital, leveraging emerging technologies such as blockchain and shifting geographical coverage were priority areas for the next 3-5 years.

When asked what potential obstacles banks saw to their future growth prospects, respondents' answers were stark. 93% of respondents named regulation and compliance as a potential obstacle while 87% pointed to complying with counter-terrorism and international sanctions regulation.

The ICC Banking Commission has continuously advocated for banking regulation that avoids aggravating geographical disparities in trade finance coverage, specifically across poorer regions in Africa and South Asia. In 2017, following ICC engagement with the United Nations (UN) and national governments, the UN officially recognised the estimated US\$1.5 trillion trade finance gap and pledged to carry out an official review of its underlying causes.

As the only private sector Observer to the UN General Assembly and a leading voice for global business intergovernmental forums, across ICC has long held that an inclusive and evidence-based policy process can drive global economic growth further development goals. The ICC Global Survey is a concise demonstration of this conviction and its findings will contribute to informing an international policy process that aims to share the gains of global trade more widely among populations that too often see each other as zero-sum competitors.

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Monetary policy - end of history?

Sabine Lautenschläger is a Member of the Executive Board and Vice-Chair of the Supervisory Board of the ECB

n 1992, the political scientist Francis Fukuyama announced the end of history. The cold war had just ended, and in Fukuyama's view, this marked "the endpoint of mankind's ideological evolution". Liberal democracy had prevailed; the final form of government had been reached. There was no need for history to continue.

Similar claims were made about monetary policy. The great moderation, for instance, was traced back to better monetary policy. With this in mind, some argued that monetary policy had reached a perfect and final stage. There was no need to evolve further; history had come to an end.

Or had it? Well, it seems that the unexpected always happens. And when it does, it tends to push the end of history a bit further away. This is true for politics, and it is true for monetary policy.

The unexpected happened in 2008: the global financial crisis struck and undid the great moderation. History took a sudden turn and this threw long-held beliefs overboard. Academics as well as policymakers had to adapt their thinking and their doing – monetary policy was no exception. Central banks around the world came up with new tools to keep the financial system and the economy afloat. They became key players; some observers even referred to them as the only game in town.

Now, ten years later, there is one thing that weighs on many people's minds: when will unconventional monetary policy end? When will it return to normal? It seems that many look no further than the exit from our unconventional measures. But what will happen once we have reached the exit? Will we return to the end of history?

Well, I don't think so. First, there are still many questions that need to be answered. And second, the unexpected will happen again at some point. History does not end. But before we discuss what will happen tomorrow, let's take a look at today.

Approaching the exit - slowly but surely

For many months, we have been discussing the conditions for a gradual exit from our extraordinarily loose monetary

policy. But some might now point to the latest economic data indicating that growth has lost some momentum and wonder if this is reason to be concerned, or even to change plans?

Well, first of all, we need to put the latest developments into perspective. Growth in the euro area exceeded potential growth for a couple of quarters. In 2017, the euro area economy grew by 2.5%, compared with potential growth estimates of 1.5% for the year¹. Against this backdrop, one could expect to see it to slow down. And that's what happened.

In the first quarter of 2018, year-on-year growth was 2.5%, compared with 2.7% in the fourth quarter of 2017. We saw industrial production, excluding construction, decline in the first two months of the year. And both the composite output Purchasing Managers' Index and the European Commission's Economic Sentiment Indicator eased in the first quarter. But both are still well above their long-term average.



So we are seeing that the pace of growth has become more moderate, but we are not seeing a turning point. We remain confident in the strength of the economy.

After all, the things that are currently holding back growth seem to be temporary. There was the early timing of the Easter break, there was a strong outbreak of flu in some parts of the euro area, there was cold weather and there were strikes in some countries. All this weighed on growth, but it won't do so permanently.

We need to keep a close eye on all this, and we will. But for now, there is no need to rewrite the story. The economic expansion remains solid and broad-based. Financing conditions are good, the labour market is robust with a historically high increase in jobs, and income and profits are growing steadily. In short: the real economy is doing well.

By contrast, inflation so far does not seem to be recovering as convincingly. This has left many observers scratching their heads as to why the current level of low inflation does not match the current state of the real economy. It seems that inflation is responding less to the slack in the economy than would be expected. This disconnect between the real and nominal sides of the economy is the subject of intense debate. In very general terms, there might be two forces at play.

First, the Phillips curve might have changed. It might, for instance, have flattened, or it might have shifted downwards. Empirically, it is very hard to determine which – if either – of the two things has happened.

And that brings me to the second point, which is that we cannot be sure whether we are measuring slack correctly in the first place. The unemployment rate, for instance, is based on a narrow definition. Just think of people who work part-

"History does not end for monetary policy. It did not end with the great moderation, and it will not end with the exit from our unconventional measures"

time. Officially, they are employed, but they could work more, of course. So, the amount of slack could be larger than we think. If that is the case, it's no surprise that inflation has not kicked in.

That said, the economy is still expanding and, at some point, any remaining slack will be used up. As a consequence, pressure on wages will increase, and we are indeed already seeing wages edging up. Wage growth increased from 1.1% in mid-2016 to 1.8% in the fourth quarter of 2017. In Germany, wages even grew at 2.7% in the first quarter of 2018. This, in turn, will prompt inflation to pick up.

So I believe that all we need is a bit of patience. All the conditions for inflation to kick in are in place. So, now might be the time to decide once and for all to gradually end net asset purchases by the end of this year.

But please do not misunderstand me here: I am just referring to the net purchases. There is still the stock of assets we have already bought. And we will still reinvest any proceeds from maturing bonds. Just to put it in perspective: each month we buy assets worth €30 billion. This compares with a stock of assets worth €2,400 billion.



What I want to say is this: even when we end net purchases, monetary policy will still be extraordinarily accommodative. And, at the same time, other tools will remain in place. The Eurosystem has, for instance, committed to granting banks unlimited access to liquidity against a wider range of collateral.

With our targeted longer-term refinancing operations, we provided credit institutions with funding for up to four years. Finally, interest rates are still historically low and will remain so for some months to come. A first hike around the middle of 2019 is not entirely out of the ballpark.

So, we are slowly but surely moving towards the exit. This is the next big thing to happen. But it will not be the end of the story, let alone the end of history. Monetary policy will continue to evolve, new challenges will arise, and many questions still need to be answered.

I will discuss three of these questions now: first, does monetary policy need to refine its targets and update its toolbox? Second, how should it treat financial stability? And third, what is the relationship between monetary policy and the distribution of wealth and income?

Tools and targets

As we know, when the crisis hit in 2008, central banks around the world had to rethink their approach in more ways than one. And they are still doing so.

What will monetary policy look like in the years to come? Should we put some of the tools we used in the crisis near the top of our toolbox where we can easily reach them? Or should we bury them and only dig them out again in the event of a severe crisis? And should we redefine our target?

The debate on these issues, in academic and policy circles alike, has been lively. So let us weigh the potential costs and benefits of redefining our toolbox and our strategy.

Let's start from the beginning. The crisis called for very loose monetary policy, and we responded with our standard tools. However, despite the ECB's efforts, inflation remained at historically low levels. In January 2015, the Eurosystem thus announced that it would start buying government bonds. A year and a half later, in June 2016, it also began to buy corporate bonds.

So, the basic story is simple. Once the Eurosystem had come to the conclusion that the standard tools were not sufficient to reach our objective, it turned to non-standard tools.

Asset purchases are one of those tools. And they have made our job as central bankers even more complex than it used to be. The first challenge we faced was how to go about implementing the purchase programme. Interventions like this can have any number of unintended consequences.

First, as a major actor in the markets for public and private bonds, we have to tread carefully. We have to make sure that the markets continue to work well. We thus placed limits on the share of a bond issue that we would buy, for instance. This ensures that the Eurosystem does not form a blocking minority in the event of a debt restructuring involving collective action clauses.

Second, there is a risk that we might become a drag on market liquidity, in particular in some segments of the corporate bond markets. We have thus tried to minimise this kind of side effect, and not to worsen existing shortages of certain assets.

Third, we must be aware that our actions might distort prices. The more bonds we buy and the longer we go on buying them, the greater the risk that prices no longer reflect market conditions.

These are some of the risks we have to bear in mind. Viewed from today, however, it seems that our non-standard measures did have the desired effects on financial markets and, consequently, on the real economy.

But what does this mean for the future? Seeing the short-term effects, some observers suggest making the balance sheet part of the new orthodoxy of monetary policy strategy – or part of the standard toolbox, as they like to say.

Let me say clearly that I think this should not happen. The short-term benefits should not lead us to overlook the long-term costs and the severe side effects. These costs and side effects can be quite high, and they tend to grow over time.

Thus, a comprehensive asset purchase programme, such as the current one, should only be used to fight a real risk of deflation. In my view, that is the only valid reason for using such tools.

For one thing, I wonder how it would affect the incentives for various stakeholders. Financial market participants, firms, consumers and also governments have to varying degrees adjusted to historically low interest rates and ample liquidity. And for some of them, low interest rates have certainly made life easier. It is therefore crucial to realise that this won't go on forever – the exit will come eventually – and to adjust accordingly.

Second, there is the issue of financial stability. When the central bank buys bonds, it might also fuel asset price bubbles, financed by cheap credit. This risk increases the longer unconventional monetary policy measures continue to be applied.

And third, monetary policy can only buy time – no matter how loose or unconventional it becomes. Monetary policy is not a tool meant to alter the long-term viability of economies, and it would be dangerous to believe otherwise. I will come back to this point in a few minutes.

And it's not just about the tools, it's also about the target. A second idea that is often put forward is that we should change our objective and strive for higher inflation². Proponents of this idea claim that we should no longer aim for inflation rates of below, but close to, 2% over the medium term.

They argue that we should aim for inflation rates higher than that. This idea is based on the observation that higher inflation rates generally lead to higher average nominal interest rates. This would then give central banks more room for manoeuvre, as they would be less likely to hit the effective lower bound.

In my view, aiming for a higher inflation rate would lead to the same problem as making non-standard tools a standard part of the toolbox. Such proposals tend to underestimate the associated costs.

There is evidence that changing the objective would be too blunt a move. Hitting the effective lower bound is costly, but so is higher inflation. Research shows that the key benefit of higher inflation – fewer and less severe zero lower bound events – is easily offset by the costs of positive trend inflation.

What are these costs? Well, price distortions become larger, overall inflation becomes more volatile, and the welfare costs of such volatility increase as well³.

And changing our objective could undermine the markets' confidence in the ECB's commitment to price stability. The transition could prove very hard to manage and could take many years. And during that time uncertainty would increase.

We would thus likely witness increased disagreement among forecasters – inflation expectations might become more volatile. And this is anathema to central bankers. In the end, it is part of our job description to ensure that long-term inflation expectations are well anchored.

In this context, we must also take into account that changing our objective might in itself hurt our credibility – the main asset of any central bank. And this would make it much harder to steer inflation expectations even after the new objective had been met. After all, people might think that at some point in the future, we could revise our objective again. Central bankers are conservative for a reason.

To sum up, it seems to me that these proposals have one thing in common. They are a reaction to the dramatic shifts we have witnessed since the crisis. Hitting the effective lower bound forced a bout of creativity in the world of monetary policy. But I do not believe that the way forward is to entirely revolutionise the way we think about the role of central banks.

Still, we should also be realistic. The crisis revealed shortcomings in our thinking, and this is something we need to work on.

What about financial stability?

So the debate about the future does not end here. Another thing to discuss is how monetary policy and financial stability interact. And this debate also involves our standard tool, the interest rates. Interest rates have been very low for quite some time now. This has coincided with an upsurge in asset prices and a compression of spreads on risky securities.

Against this backdrop, some economists argue that monetary policy has an effect on both the capacity and the appetite of investors to take on risk⁴. This has been termed the risk-taking channel, and it does not play a role in standard monetary

policy frameworks. These focus instead on the interest rate, credit or bank lending channels.

Now, how does this risk-taking channel work? Well, it can work in different ways. For a start, low interest rates mean low returns. Investors might rebalance their portfolios and take on more risk in order to make up for lost returns. Should we be concerned about this? Well, if the process is well managed, there is no need for concern.

However, some financial institutions set rather inflexible target rates of return, for example because investors expect a certain minimum yield. These inflexible targets may lead them to take on more risk than appropriate. It is clear that this could lead to trouble further down the road.

Also, the financial system's behaviour can be procyclical. There is reliable empirical evidence that loose monetary policy lowers both the measured risk in asset prices and the risk premia demanded by investors⁵. But value-at-risk approaches mean that the risk management of banks relies on measured risks. This could then lead to increased leverage, which would add even more liquidity to the global financial system. So there is a view that the risk-taking channel should be incorporated into the models that guide monetary policy.

Let's try to unpick this argument. In my view, there are two conceptual issues here. The first is the idea that policymakers should only be concerned with risk-taking if it is excessive. But establishing whether or not risk-taking is excessive is quite hard. The second issue is that even if we conclude that there is excessive risk-taking, it is far from clear whether monetary policy would be the best tool to deal with it.

Let's start with the first issue. What qualifies as excessive risk-taking? Well, there are two conditions. Risks would need to be mispriced, and investments would need to have been financed with a dangerous amount of debt. If these two conditions are met, a financial crisis becomes more likely.

Now, where do we stand on these two issues? Well, there is some evidence that banks in the euro area do indeed provide riskier corporate loans when short-term interest rates are low⁶. It seems that banks tend to grant loans with fewer covenants and lower collateral cover. Such loans are riskier in the sense that in case of a default, the impact on the banks might be larger.

However, it is hard to tell whether this kind of risk-taking is excessive or not. Many studies rely on credit register data which do not include loan interest rates. Thus, it is hard to tell whether the loans are mispriced given the risk they contain. It could just as well be that banks grant loans to riskier companies but do so at higher interest rates, which compensate fairly for the higher loss risk.

This brings us to the second issue. Even if we could say with certainty that risk-taking is excessive, we would still need to be sure that monetary policy is the right tool to deal with it.

Some think it is; others think it isn't. The latter believe that central banks would run into trouble if they tried to deal with

financial stability. This is because it would involve a conflict of interest. To stop a credit-induced bubble, we would need to raise interest rates, and we might need to raise them by a lot.

After all, potential profits are huge when there is a bubble, so investors would not be deterred by a modest increase in interest rates. But what if a huge increase in interest rates would derail inflation? Which path should monetary policy take in such a situation?

As the economist Jan Tinbergen has observed, you cannot achieve two goals with just one tool. And attempting to do so would damage the credibility of central banks.

It's not easy to say who is right. Financial crises are fortunately rare events, and usually there is no single cause. This means, however, that we do not have a whole lot of data to analyse. Still, in the past, monetary policy was used at least in part to prevent bubbles from forming. This was done in the United States in the late 1920s, for instance, and in Japan in the late 1980s. Suffice to say, these episodes did not end well.

So, it seems wise not to rely on monetary policy when it comes to financial stability. And in this sense, the reforms of the institutional architecture in the Eurosystem after the crisis were indeed wise. The ECB's mandate remains clear: our objective is price stability. But we have also been given powers for microprudential supervision, as well as some macroprudential competences.

On the microprudential side, European banking supervision contributes to the soundness of the banking system. A lot of work has already been done, and we will continue to do more.

First of all, banks are much better capitalised and provisioned than they were in 2014, which makes them more resilient to shocks. Second, we are pushing banks to reduce legacy assets such as non-performing loans. And third, we are requiring banks to improve their risk management, for instance with regard to the internal models they use to calculate the risks associated with the assets they hold.

Macroprudential policy was also developed in the aftermath of the crisis. It still needs to be refined and tested. Available evidence from the euro area and beyond may not be definitive, but it is encouraging. Let me give you a few examples.

With the 2010 Basel III agreement, we introduced countercyclical capital buffers. These can help lean against the build-up of imbalances, and if they cannot fully prevent them, they can at least make banks more resilient in the event of a downturn.

Borrower-based tools also look promising. In Asia, they have been used for many years now. In South Korea, loan-to-value and loan-to-income limits have successfully curbed growth in house prices⁷. But again, more systematic evidence is not clear-cut. Studies based on cross-country evidence show that only loan-to-income limits have had a discernible effect on house prices. But there is still reason to be cautiously optimistic.

And the benefit of macroprudential policy remains clear: it is the most direct way to deal with financial stability concerns. And, over time, we will gather more evidence and gain more experience. This will give us plenty of opportunity to finetune these new tools.

Beyond monetary policy: wealth, income and structural reforms

But the discussion about the wider effects of monetary policy is not just about financial stability. Particularly here in Germany, there is a fierce debate about who loses out as a result of monetary policy. Many savers feel that they have to bear a huge burden because interest rates are so low. I understand their frustration. After all, I am a saver myself.

However, we are not just savers. Some of us might have taken out a loan to buy an apartment or start a business – we benefit from low interest rates. Some of us may have invested in stocks or bonds – we benefit from rising markets. And some of us may have kept our jobs because monetary policy propped up the economy.

Monetary policy affects people in different ways. In more technical terms: it has an impact on the distribution of wealth and income. And the important question is whether it makes this distribution more unequal. Does it make the rich richer and the poor poorer?

Let's look at wealth first. Here, the most important item for many households is real estate, the home they live in and any other property they may own. Real estate makes up about 80% of the total assets of households, almost irrespective of their level of prosperity. So, to answer our question, we need to think about how monetary policy affects house prices.

The answer is that quantitative easing raises house prices and, on average, this boosts the net wealth of all households, rich and poor alike. In fact, poorer households might even benefit more because they are more highly leveraged. So their main asset – their house – gains in value, while the debt they used to finance it becomes cheaper.

Now, what about incomes? Well, loose monetary policy props up the economy and thus raises employment. And again, this should mean that people with lower incomes benefit most. After all, unemployment is much higher among those with low incomes than among those with high incomes.

So, it seems that loose monetary policy might also reduce income inequality. However, there are three things that we must keep in mind.

First, the effect of monetary policy on inequality is quite small. In the end, inequality is driven by many things such as technological progress, globalisation and taxes. Compared with these things, monetary policy seems to play a minor role.

Second, the effect is temporary. In the long run, monetary policy is neutral; it does not affect real variables such as output. And third, the effect is symmetric. Those who benefit when monetary policy is loosened suffer when it is tightened.

We have to be aware of these effects, of course. But should it be up to monetary policy to actively engage in redistribution policy? Well, monetary policy has a very clear goal: price stability. So, I would argue that monetary policy should focus on this goal and leave other goals to other policy areas, and that includes redistribution policy.

Imagine inflation were sky-high, for a change. Should monetary policy then refrain from raising interest rates because it might alter the distribution of income and wealth? Again, there is a clear conflict of interest as one tool would have to achieve two objectives at once.

That said, the topic of wealth and income distribution is an important one and it should not be taken lightly. I therefore welcome the fact that academia is paying increasing attention to the matter. The ECB is contributing to the debate with our household finance and consumption survey.

And this links to a broader issue. In the crisis, monetary policy has played a key role. However, it is not the only game in town – it cannot be the only game, and it should not be. Monetary policy is not a substitute for other policy areas such as social policy, fiscal policy or labour policy.

As I and many others have repeatedly said, monetary policy cannot resolve the structural problems of the euro area. All it can do is buy time – at an increasing price. So it is time for politics to kick into gear, overcome reform fatigue and do what needs to be done. The current conditions are very favourable.

The good news is that many countries have come a long way. Ireland was the first success story, and I am glad to be able to add countries such as Spain and Portugal to the list. These and other examples show that structural reforms pay off and pave the way for growth to return.

But coming back to inequality, there is one thing we must do. We must ensure that economic growth benefits everyone. To that end, we should not just rely on redistribution policy. It is rather about creating equal opportunities for everyone. In this context, education and equal access to it should be at the top of the to-do list of any government. So, a lot remains to be

done, not just on equality but on growth in general. After all, growth also plays a big role in fighting inequality.

And when it comes to long-term growth, research shows that the quality of institutions plays a major role⁸. At the same time, the quality of institutions differs between countries. So, some countries have scope to improve judicial systems, public administration and insolvency regimes. This would make their economies more resilient and help them to grow.

And I'm not just referring to institutions at the national level. European institutions are not free of deficiencies either. They too need to improve. If we want European citizens to trust Europe, we need to make sure we deliver on our promises.

And there is a long way to go: according to the latest Eurobarometer survey, only 41% of Europeans tend to trust the EU. And the latest election results show that anti-European parties are still on the rise – think of Germany, think of Italy. So there is a need for reform and a need to explain thoroughly how the European Union benefits each and every European citizen.

Conclusion

History does not end for monetary policy. It did not end with the great moderation, and it will not end with the exit from our unconventional measures. There are still many questions that need to be answered, some of which I have discussed.

But although monetary policy still needs to evolve, it must do so within a certain framework. And this framework is defined by two things. First, even though central banks have assumed a key role in the crisis, their objective is very clearly defined: to ensure price stability.

Second, to achieve this objective, central banks need to be independent. Within this framework, we need to answer all the questions which remain open. So, there is still a lot of work to be done in terms of both theoretical and empirical research. That's where universities come into play. They can help us to gain additional insight, and they can help us to come up with new ideas. From an academic viewpoint, these are certainly interesting times.

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Digitalisation of money and the future of monetary policy

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he digitalisation of money has the potential to change traditional structures of the financial system. This column discusses four areas in which it may have an impact, and argues that while digitalisation will not erode the importance of central banks, banks could be massively challenged by new forms of intermediation.

Most economists will agree that the future of money will be more digital than today. But while everybody speaks of 'digitalisation', the concrete meaning of this term remains very often unclear. There are four major areas where digitalisation could modify the traditional forms of money and credit and as consequence modify the theory and practice of monetary policy:

- the substitution of cash with electronic money;
- the substitution of traditional bank deposits and bank notes with cryptocurrencies;
- the substitution of bank deposits with central bank deposits for everyone ('universal reserves');
- the substitution of bank lending with peer-to-peer lending on the basis of digital platforms.

Substitution of cash with electronic money

An area where digitalisation has already made progress is the use of cash in payments. In the member states of the euro area from 1980 until today, the share of cash in the money stock M1 has declined from 23% to 14%.

However, as a recent study by the ECB (Esselink and Hernández 2017) shows in terms of number, still 79% of all transactions were carried out using cash, which amounts to 54% of the total value of all payments. But this could change rapidly. As the study shows, 81% of all payments at point-of-sale terminals in the euro area are below €25. At the same time, more and more payment cards and point-of-sale terminals are enabled with contactless technology for payments below this threshold.

What would a completely cashless economy imply for monetary policy? First, it would remove the zero lower bound

for interest rates. This would increase the central bank's room for manoeuvre in deep recessions, above all in a deflationary environment.

Second, it would remove the risk of a general bank run, as depositors could only switch their deposits between banks but not totally out of the banking system. This would reduce the need for the central bank to become active as a lender of last resort. On the other hand, one could argue that if savers can no longer withdraw their deposits, this could reduce or even remove the market discipline for the banking system.

But for these effects to materialise, it is not sufficient that the usage of cash approaches zero over time. It would require that cash is totally abolished. As long as the convertibility of bank deposits in cash is possible, the use of cash could rapidly rebound if interest rates become significantly negative or if the health of the whole banking system is at stake.

Thus, in the area of cash, digitalisation by itself cannot lead to a qualitative change for monetary policy. But a vanishing use of cash in daily payments could facilitate a political decision to abandon cash altogether. However, at least from the German point of view, a fully cashless euro area is very unlikely for the time being.

Substitution of the traditional monetary base and money stock with cryptocurrencies

A second challenge to the traditional concepts of money and monetary policy comes from cryptocurrencies like bitcoin. They can be regarded as the realisation of Friedrich A Hayek's (1976) dream of the 'denationalisation of money'. He was not very precise about the concrete implementation of such a system of 'competing currencies'. He mainly had in mind private banks issuing banknotes, leaving it open whether they are convertible not.

For a discussion of these issues, it is useful to have a taxonomy that makes it possible to classify types of money along four criteria:

- private versus public issuer;
- convertible versus non-convertible money;

- · physical versus electronic money;
- money that is transferred in a peer-to-peer nature (cash or digital money recorded in a distributed ledger) and money that is transferred in accounting systems with a central book-keeping agency.

Graphically, such a taxonomy can be represented by a 'money flower' (Figure 1). The idea goes back to a study by the Bank for International Settlements (Bech and Garratt 2017). But instead of the criterion 'convertibility versus non-convertibility', the Bank for International Settlements uses the criterion 'limited versus general accessibility'. The other three criteria are the same.

Without going into detail, the taxonomy makes clear that, due to their inconvertibility, cryptocurrencies have a strong similarity to traditional central bank reserves and cash. In this respect, cryptocurrencies differ from bank deposits, which promise convertibility in cash. Of course, private inconvertible money could be also issued in cash (Hayek banknotes) or by banks that offer deposits that are inconvertible but recorded in traditional centralised accounting systems (Hayek bank deposits).

Are cryptocurrencies a serious challenge to cash, traditional bank, or central bank reserves? Due to their inconvertibility, they do not have an intrinsic value. While this is also true for cash and central bank deposits, the monies issued by central banks have the enormous advantage of being a legal tender.

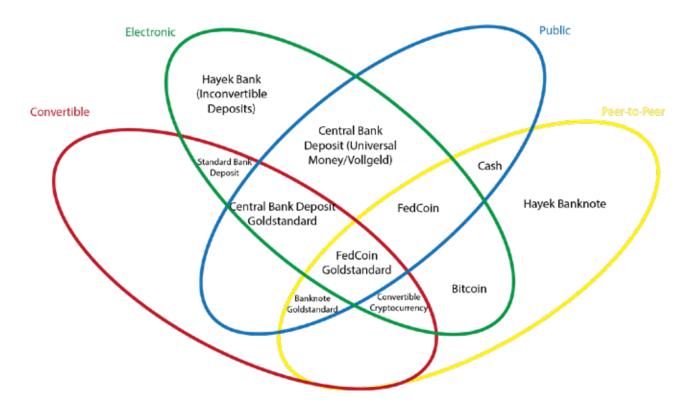
This is an important protection against the full implosion of the value of a money without intrinsic value. An important "... vanishing use of cash in daily payments could facilitate a political decision to abandon cash altogether. However, a fully cashless euro area is very unlikely for the time being"

additional value protection is provided by the legal mandate of the ECB and other central banks to maintain price stability which so far has been achieved remarkably well.

While an individual issuer of a cryptocurrency can try to install a value guarantee by setting an upper limit for the issuance of its currency, the logic of currency competition implies that there is no limit on the number of issuers. Thus, there is also no limit of the total amount of the aggregate stock of cryptocurrencies. Holding a cryptocurrency always bears the completely unpredictable risk of a total loss. In other words, as a store of value the high volatility of cryptocurrencies makes them unattractive for most investors.

Cryptocurrencies are also not attractive as a means of payment. As Bitcoin shows, production costs are becoming prohibitive, transaction costs and transaction times are high. In addition, due to the distributed ledger all transactions are public. In other words, if the public key of a user is known, all his transactions become transparent.

Figure 1. The money flower



Overall, cryptocurrencies do not have the potential to replace the established national monies nor to have a relevant impact on monetary policymaking. As far as they are used to circumvent laws against money laundering, adequate legal restrictions are required.

Universal reserves: substituting cash and bank deposits with central bank deposits for everyone

With the emergence of cryptocurrencies and the reduced demand for cash especially in countries like Sweden, some central banks have started to develop concepts for allowing non-banks to hold deposits with the central bank. The most elaborate concept is the e-krona developed by the Swedish central bank (Sveriges Riksbank 2017).

Digital central bank money for non-banks could become a substitute for cash, especially if the value is stored locally on an app or a card (value-based solution). At the same time, it could become a substitute for traditional bank deposits if the balance is stored in accounts in a central database (register-based solution).

The introduction of digital central bank money for non-banks would not necessarily require an accounting mechanism that is based on a distributed ledger. And even in the case of a distributed ledger, it must not be a blockchain².

Deposits with the central bank could become a very attractive investment as they would provide a totally safe asset. This feature would be appreciated above all by private households and firms with bank deposits exceeding €100,000. With the

Bank Recovery and Resolution Directive, such investors are exposed to the risk of a bail-in which they could avoid by holding central bank deposits. Of course, the attractiveness of such deposits depends on their interest rate relative to the interest rate of bank deposits.

Assuming a situation where all citizens have a bank account with the central bank, the run risk for commercial banks (a 'digital bank run'; Cœuré 2018) would be increased, as it makes it much easier to switch especially higher deposits out of the banking system.

In an even more extreme scenario where all citizens hold overnight deposits at the central bank, the central bank's room for manoeuvre would again be increased. It would not only be easier to enforce negative interest rates, it would also become technically possible to use the instrument of helicopter money. The central bank would simply credit a certain amount to the account of each citizen.

Widely used central bank deposits would fundamentally transform the role of banks and their relationship with the central bank. The banks would still be able to provide loans. But the banking system would then always need a corresponding refinancing from the central bank, as the loans have to be paid out on the central bank deposit of the borrower. This would come close to the concept of full-reserve banking restricting the bank's ability to create loans autonomously.

However, it does not imply a 100% refinancing by the central bank. The banking system could always try to attract a longer-



term refinancing from non-banks out of their central bank deposits.

An extreme form of universal reserves is 'Vollgeld' (sovereign money). In such a scheme, traditional bank deposits would no longer be allowed. If practiced in a consequent way, the central bank would no longer act as a stabiliser of the money market. This would result in higher interest rate instability (Bofinger and Haas 2018).

Digital central bank money for all could also have far-reaching implications for the payment system which is currently based on bank accounts. The role of banks could be reduced in favour of non-banks offering payment services based on central bank accounts. This could offer a potential for innovation and competition in payment services. Therefore, in my view, central banks should refrain from providing payment services.

Peer-to-peer lending substituting traditional bank lending

A fourth possible innovation is the substitution of traditional bank loans with peer-to-peer lending. China is leading in this field and it shows the risks and the regulatory challenges that are associated with this instrument.

Conceptually, peer-to-peer lending has many similarities to capital market lending as it establishes a direct relation between lenders and borrowers. One can say that peer-to-peer lending creates a 'capital market for small borrowers'. Digitalisation has the potential to widen the scope of this form of finance, especially if it is based on established internet platforms.

Using information from credit scores, social networks or platforms like Amazon, peer-to-peer platforms can provide the screening and delegated monitoring, which is the core function of banks in an environment with asymmetric information.

By distributing the investments over a large group of borrowers, peer-to-peer lending can also offer the traditional risk diversification provided by banks.

As peer-to-peer lending does not need an intermediary, which bears risks, it has the advantage of needing less regulation

than traditional bank lending. This concerns above all capital requirements and liquidity requirements. So far, peer-to-peer lending is still in its infancy, but it could have the potential to become a similar challenge to the traditional bank business as Uber is to the traditional taxi business.

For the central bank, an 'uberisation' of banking could imply less influence on financial processes and also on real processes. In the same way as capital markets, peer-to-peer lending makes it possible to mobilise the existing money stock for additional lending.

But as long as bank deposits remain the main input for this form of financing, the central bank will be able to influence peer-to-peer lending with its interest rate policy. The decision of an investor to use money that is held on a bank account for peer-to-peer lending will depend on the interest rate that she receives for such a deposit. With its control of the money market interest rate, the central bank can indirectly target the interest rates for such deposits.

Digitalisation of money does not erode the power of central banks

The digitalisation of money has the potential to change traditional structures of the financial system. It can redefine the roles of banks and central banks. But by itself, digitalisation does not erode the control of central banks over the financial system. Massive regime changes (abolishment of cash, universal central bank reserves) are possible. However, they would require a political decision and they would not weaken but strengthen the role of central banks.

Banks could be massively challenged by new forms of intermediation, above all by peer-to-peer lending. The decision by central banks to offer central bank accounts for all would fundamentally change the function of banks, above all by limiting their ability to create loans autonomously. In addition, this could also reduce the importance of banks in the provision of payment services.

In spite of cryptocurrency hype, they will not become a serious game changer. They may have some attraction for risk-loving investors. But due to limits of their inconvertibility and the unlimited number of issuers, they will hardly come into a position that they could threaten the dominant role of national currencies and traditional bank deposits.

- 1. This is identical to the 'inside versus outside money' definition of money.
- 2. Corda replaces blockchain with a 'notary' architecture. The notary design utilises a trusted authority and allows consensus to be reached on an individual-transaction basis, rather than in blocks, with limited information sharing.

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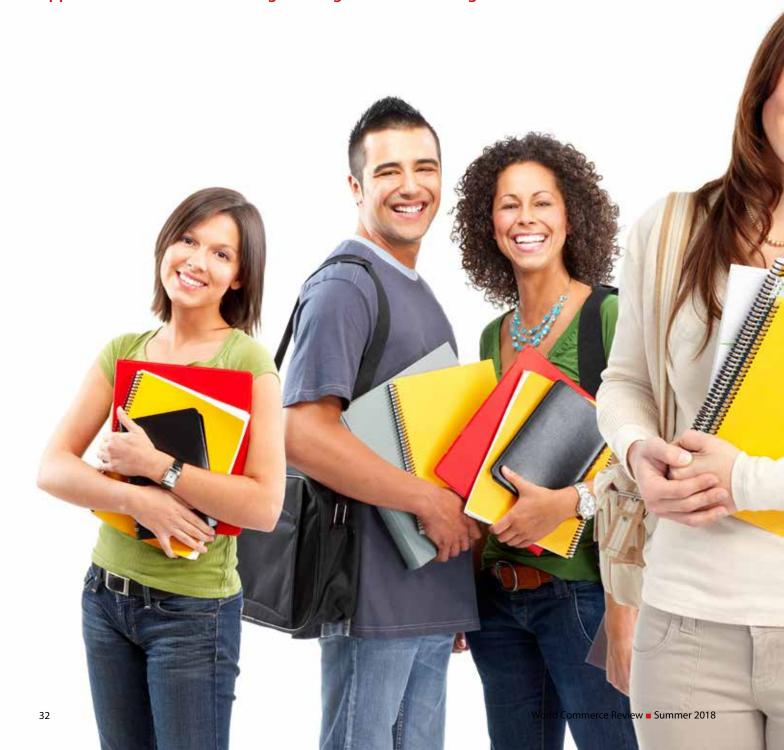
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Lifelong learning is key to business and employee success

Lifelong learning is more than a strategy to develop employees and foster retention—it's a key component to organizational success by helping employees to keep their skills relevant in the face of disruption. AACSB International considers the environment, challenges, and opportunities related to lifelong learning and talent management



wenty-five years ago, the popular catchphrase often used to characterize change in the business sector was 'paradigm shift.' This terminology evokes a gradual transition from one way of doing things to another in a manner that facilitates a change in how things are done overall. Today the term is 'disruption.' The difference is more than a semantic one.

Today, disruption signifies a pace and scope of change that demands a remarkably versatile effort to help employees and employers not only keep up, but anticipate change and adapt. Disruption is not just about the way an industry does things; it is also about the knowledge, abilities, and roles of the individuals who work in that industry. Disruption is the problem that must be addressed. Lifelong learning that builds and rebuilds the employee's skills is the solution.

As a consequence of this evolving environment, new demands are being placed on the ability of employees to learn new skills. To meet those demands, we must combine the experience and talents of business educators with business professionals to co-create learning solutions. The lines between training and development and education—including continuing and executive education—are blurring. Business practitioners and educators must work together to meet the rapid need for continuous learning—a key pathway to achieving innovation on all levels. Finding a means to provide lifelong learning is the responsibility of the entire business continuum.

Ultimately, talent managers and human resources directors hold the responsibility to foster a culture of lifelong learning and development. Building and maintaining this culture is probably one of the greatest demands facing a human resources or talent manager today, and if it is not a part of the job description for any talent professional, it should be.

There are two new resources available to which talent professionals can turn to inform their thinking. AACSB International—The Association to Advance Collegiate Schools of Business (AACSB) recently released the report To address lifelong learning.



"... the need for lifelong learning is not going to diminish, and just as the environment grows more complex and challenging to the employer and the employee, so too is the effort to engage and educate"

a culture that meets the need for education and learning—one that is continual over the course of a career. The second resource, the AACSB Industry Brief: Lifelong Learning and Talent Management considers the challenges and opportunities in lifelong learning that talent managers face and summarizes the perspectives of the AACSB Board of Directors and Business Practices Council.

The survey and report identify a significant difference between delivering a program of lifelong learning and fostering a culture of continuous learning. Simply put, there is too much complexity in today's business environment to expect that employers can anticipate and direct all of the learning and development needs of their employees. Ultimately it is the employee who has to embrace opportunities and adopt a mindset of learning in order for the benefits to be achieved.

The importance of lifelong learning

Numerous studies have shown that investment in learning and development does create a competitive advantage for organizations. Recognition of the role of learning was evident in responses to the chief learning officer (CLO) survey, with 82 percent of talent management professionals stating that they have been tasked with fostering lifelong learning among their employees, and nearly three-quarters of them saying that it is a critical or important part of their talent strategy. The reasons are numerous.

Over half of respondents stated that a learning environment helps them meet the challenges of a disruptive market, and half stated that it helps the organization attract and retain talent in critical roles. The latter can be considered an essential attribute in the United States, where the average employee with a college degree has an average tenure of 5.2 years with an employer.

Beyond the retention and attraction of employees, however, is the need for those in the workforce to have skills that are relevant to the competitiveness of the organization itself. By ensuring that a methodology is in place for continuous learning, organizations are able to be more agile, meet the challenges of disruption, and retain their relevance in today's market.

To accomplish this objective and to mark progress, the survey found that nearly half of the organizations we spoke with track the progress of lifelong learning into employee performance evaluations and are engaged in regularly surveying employees. One in three organizations track the hours of learning that are being delivered to employees, as well as measure productivity over time to assess the impact.

Finally, the importance of engaging employees and getting their input into learning becomes a means to strengthen the relationship with the individuals in a workforce. This cooperation demonstrates that an organization cares about its employees as more than just assets of the company.

Strategies to empower learners

The industry brief on lifelong learning and talent management states that the shift to lifelong learning means the world will have a larger, more diverse pool of learners than ever before and that a resulting implication of that fact is that learners themselves must take on more responsibility. This responsibility includes assessing their own needs and identifying learning opportunities to address them.

This view was affirmed in the survey report, as well, where there was almost a universal sentiment among respondents that employees should be ultimately responsible for their own lifelong learning, and 61 percent of respondents said that employees should be solely responsible.

But there was also strong sentiment from survey respondents that business organizers and education providers also have responsibility to help pave the way for those employees in their learning journey. The role of the organization belongs more in the realm of ensuring that employees are empowered to learn by providing guidance about opportunities that may be available and how and when to best access them.

The organization's role as a guide is partially due to the fact that the avenues for engaging in lifelong learning are varied. A majority of businesses look to professional associations that offer credentialing as well as to other providers of education that have emerged, like online career platforms.

But nearly half of respondents to the CLO survey stated that they will be looking in the future for universities and colleges to play a stronger role in offering credentials that are not associated with earning a degree, such as badges of achievement and certificates. This shift signals an important need to deepen the relationship between employers and universities.

Whatever the strategy, it is clear that both employees and employers are starting to expect that 'what is best' for an individual is a decision usually not made for the individual but rather a decision made in partnership with or by the employee with the input of the employer.

Different approaches valued for different reasons

As noted in the industry brief, learners want not only new knowledge, they want to be able to demonstrate their achievement. Consequently, there has been a proliferation of mechanisms that signify achievement including degrees, certificates, licenses, or other means to credential an individual.

Credentials serve the important function of enabling organizations to track success, but it is essential that any credentialing program provide clarity about the learning content and reassurance that what is being taught will, in the end, have value and be applicable in the workplace.

Looking at various categories—certifications, certificates or digital badges, licenses, master's degrees, bachelor's degrees, and dual degrees—certifications and licenses were highly rated by survey respondents because they made clear what would be achieved by obtaining them and that learners will be able to apply the skills acquired as a result.

Degrees, on the other hand, were well rated for being highly transferable, credible, and, of course, transportable with the learner. Degrees are universally understood. Certificates and earned badges were valued because they are highly accessible, but were not as highly rated when considering their credibility and transferability.

There are also varied pathways for attaining credentials. In the CLO survey, with regard to the future of learning, four out of five respondents thought that formal learning will increasingly become more stylized for the individual rather than being standardized for a large group of students or learners and, perhaps related, will be much more likely to occur online than in a formalized classroom. Three-fourths believed that this stylization also afforded the opportunity for learning to be organized more in groups or teams as opposed to individual self-study and will be self-managed by employees rather than by the organization that employs them.

And in recognition of trends underway, just over half of respondents—56 percent—believed that new learning platforms could involve gamification, artificial intelligence, and virtual and augmented reality. But it is also clear that the means for learning must be affordable and accessible. In that respect, digital pathways can offer a great deal.

Participants involved in developing the industry brief noted that advances in digital learning, as well as learning analytics and virtual and augmented reality, all serve not only to increase the quality of lifelong learning but also to increase the ability to provide access.

Active engagement and input of managers

Lifelong learning in an organization's culture doesn't just happen. Managers can help develop an environment that encourages lifelong learning in ways that will ultimately be of benefit to both the organization and the employee. The role of managers—those who will not only help guide the employee in their effort but also hold a position to help apply and reward the learning—is extremely important in the success of that culture. Ultimately, managers themselves are accountable for the learning in their organization.

How did respondents believe this new culture would be accomplished? Mentoring and coaching programs were identified by two out of three as being the preferred means by which to support learners, followed by the provision of direct feedback mechanisms between manager and employee.

Other means for fostering learning included content library subscriptions that were open to employees and guidance programs for learning as it relates to employee career paths. In addition, 40 percent of survey respondents stated that programs whereby managers were held accountable for the development of employees were important, and 35 percent cited the role of toolkits and job aids to support managers in that effort.

As noted in the industry brief, the global shift to lifelong learning is only beginning to gain traction and lacks a universally accepted definition. Certainly the business environment is changing on every level, without and within, at a growing pace and with a breadth and depth that is unmatched. That makes the role of a talent manager much more daunting than it was only a decade ago and obviously means that the role of a talent professional today also demands its own path of lifelong learning.

The findings of the survey report strongly suggest that talent leaders see important roles for business organizations and education providers to partner with one another to identify, create, and deliver the learning opportunities that are needed. In addition, there will clearly be a heavier reliance on technology, personalization, and social learning, which are changing the way we define and develop learning opportunities, leading to new ways of unbundling and combining approaches previously thought to be independent.

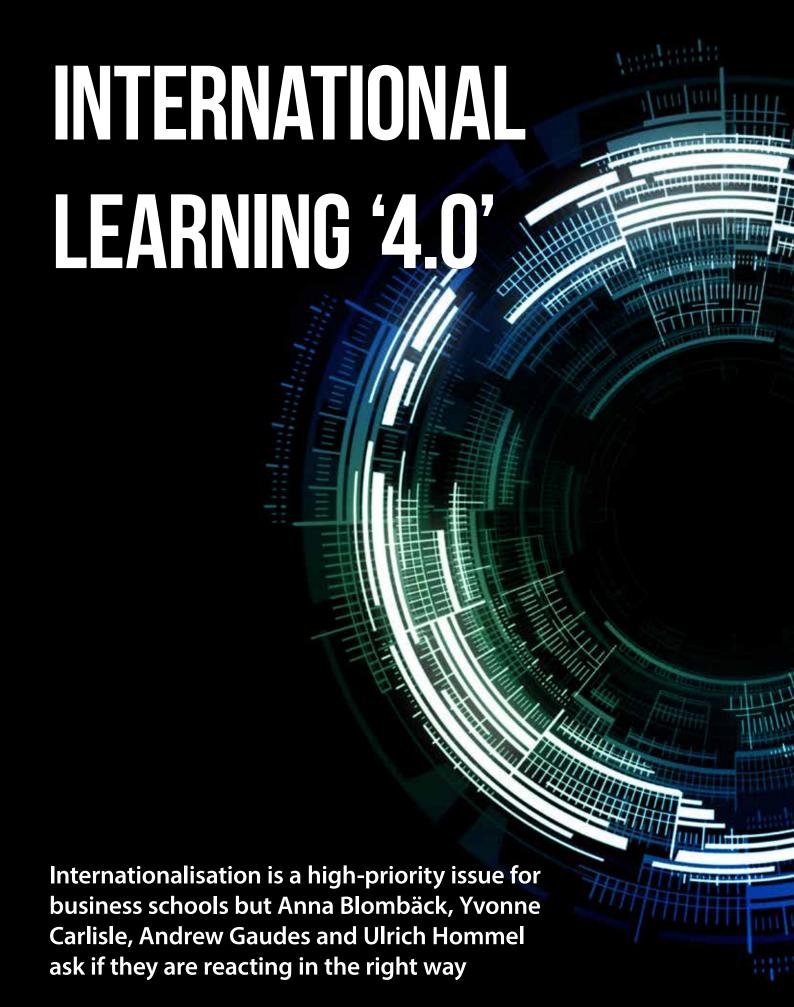
Each of the stakeholders in lifelong learning—the organizations and their talent professionals, employees who want to learn, and the education providers who can offer the means and certification of that learning—has an important role to play in shaping the future competitiveness of the employer and the employee.

Organizations need to stake out their own needs to identify the skills and credentials their staff will require to get the job done. They must position their managers in a way to make them successful coaches who in turn should be reaching out to educators of all kinds and among varied platforms. Employees have to recognize that they are engaged in this effort, take responsibility for their learning, and be incentivized to be hungry for new opportunities to learn.

Finally, educators need to vary their offerings to ensure that all types of learning and credentialing are ready and accessible, either in person or virtually, to expand the pathways to lifelong learning. Clearly, the need for lifelong learning is not going to diminish, and just as the environment grows more complex and challenging to the employer and the employee, so too is the effort to engage and educate. That means there is no reason to expect a lessening in demand, but that in fact, as the value of learning grows, the demand will continue to expand in volume and in need.

Resources

AACSB Industry Brief: Lifelong Learning and Talent Management. See https://www.aacsb.edu/publications/researchreports/lifelong-learning-and-talent-management Chief Learning Officer Survey: To Empower Learning Over a Lifetime. See https://www.aacsb.edu/publications/researchreports/chief-learning-officer





nternationalisation is a high-priority issue for business schools as they seek international applicants for their degree programmes, source faculty talent globally, interact with non- academic stakeholders abroad and establish campuses overseas.

In this article we challenge whether business schools undertake such activities for reasons and in ways that are conducive to international learning for students. Based on the notion that an international dimension is essential for management education and student learning, we elaborate why current practices are not fully capturing the potential benefits.

We then turn to the organisation of international learning, initially in a more traditional context and subsequently by exploring how current sector dynamics can act as an accelerator for further innovation and development. The underpinning conjecture is that international learning would benefit from an 'Industry 4.0'-type transformation.

Internationalisation involves a process of integrating an international perspective into the purpose and legitimacy of management education. More concretely, international learning intends to develop competencies in students that enable them to manage in culturally diverse environments. They are acquiring the ability to perceive, analyse and utilise cultural differences in pursuit of well-defined business objectives.

By extending the boundaries of personal comfort zones beyond cultural divides, students are transformed into international citizens. As such, they become sought-after graduates due to their ability to reflect and articulate the competencies required to help organisations succeed in the international arena.

International learning is conventionally described and managed in structural terms such as geographical diversity in the classroom (with regards to origin of both students and faculty), international curriculum and case study work, and student mobility.

In addition, proxies such as international partnership portfolios – including reputable business schools and multinational organisations – are used to verify the international standard of management education.

But what often appears missing is a more explicit understanding of what internationalisation means in the context of learning; that is, moving beyond coverage of different geographies in the facilitation and management of learning outcomes, which all too often suffers from institutional decoupling.

Intercultural mix in the classroom will not automatically lead to an adequate amalgam in terms of learning; a good track record of graduates entering international management careers could also be related to personal attributes rather than the learning experience provided by the school. The ultimate litmus test is whether students are acquiring the ability to manage effectively in diverse cultural contexts.



In the 4.0 world, business schools will be required to bring the global marketplace into the 'classroom' and encourage students to explore the challenges and intricacies of doing business overseas

How, then, can business schools successfully transform their approach and secure an influence on this particular aspect of students' learning?

We are proposing to turn the described practice on its head and apply a framework that borrows from the well-known structure-conduct-performance paradigm.

At its core is 'conduct', which represents the design of the learning activity (the 'doing'); this needs to be supported by 'structure', implying the supply and diversity of learning resources ('inputs'); and should lead to some form of measurable 'performance' ('outputs').

Assurance of learning serves as a glue between these components, ensuring systematic reinforcement and also supporting the interlinkage between programme objectives and institutional strategy.

Ultimately, the three elements of content, pedagogy and assessment must be aligned as interrelated components. $Curriculum design \, must \, allow \, for \, the \, cultural \, contextual is at ion$ of academic methodologies and practical narratives, which needs to be facilitated with targeted learning activities, for example involving cultural immersion (such as study tours, group activities, mentoring and internships).

Activities that are typically deemed extracurricular and all too often off the radar screen of programme management, can equally assume central importance (foreign language training, exploration of social and business contexts overseas, as well as foreign art, music and folklore).

Faculty, staff and other stakeholders involved in degree provision need to embrace an intellectual immersion experience that offers and affords the same learning path as their students. Often, though, these stakeholders are caught in a complexity where management on the basis of crude proxies is considered state-of-the-art.

Organisational inertia and limited rewards (financial or otherwise) have prevented a stronger focus in the proposed direction. This is likely to change as 'Industry 4.0' principles put pressure on business schools to transform management education and to accept the role of prospectors who disrupt - through the embracing of new advanced technologies with increased focus on the facilitation of students' skills and competencies - rather than that of reactors who wait to be disrupted.

As we are moving to what we refer to as 'International Learning 4.0 business school' physical space and geography are becoming marginalised in importance. Taking the 'Wow Room' at IE (a Spanish business school) as an example, virtual classrooms can create an inclass experience comparable to face-to-face instruction.

Virtual work spaces coupled with modern communications media that our students have been born into can facilitate project work carried out by geographically dispersed students (this article, has for example been written using Google Docs, which allowed all co-authors to work on the same document simultaneously).

Technology-induced shrinkage of distance promises to increase cultural diversity in business schools and the workplace, thereby making competencies of dealing with cultural differences even more important. It is not only the competencies of the student that is a consideration here. It is also those of faculty who teach. Training and development in new technologies and awareness of new teaching environments will be critical to SUCCESS

In the 4.0 world, business schools will be required to bring the global marketplace into the 'classroom' and encourage students to explore the challenges and intricacies of doing business overseas.











Current trends such as the spread of 'flipped classroom' pedagogy and the more widespread use of real-life ('dirty') cases will act as propellers of this development. Structural diversity, which has largely been at the centre of the international learning agenda for the wrong reasons, is becoming a conditio sine qua non for realising the full potential of 4.0 within our proposed framework.

There is now a need for a business school to consider the strategic fit between its international relations policy, its structural diversity and networks, and its intended learning outcomes.

Globally top-ranked business schools are often found in the vicinity of large business centres, suggesting that students in more remote locations struggle to gain the same access to practitioner knowledge and who may also need to undertake extra efforts to gain the attention of future employers. Virtual learning spaces across curriculum specialisms will help to overcome such locational disadvantages.

In turn, businesses will increasingly use virtual learning spaces to support global talent recruitment (and universities would be well served to do the same). The benefits will however not be spread in a Pareto fashion. The value derived from business degrees will shrink for some, as the competitive intensity for relevant business education increases; at the same time, the access to that education (whether it be in an academic or non-academic environment) will become more ubiquitous.

More fundamentally, our proposition for a more activity-focused experiential approach to managing international learning is also a response to a potentially radical shift in future global education requirements.

Jack Ma, founder of the Alibaba Group, for example, framed this challenge at the 2018 World Economic Forum, arguing that education needs to shift away from communicating knowledge, towards developing skill sets and abilities that foster and complement new technologies and expanding global processes.

This revised focus of management education demands new thought, not only with regard to curriculum design but also with a focus on faculty training and composition. The translation of theoretical knowledge to learning in practice is not intuitive. Likewise, specialised professors with strong academic records but limited practical experience are not necessarily the best facilitators of cross-cultural learning.

The virtual bridging of geographical distance will play an important role in encompassing ethics, responsibility and sustainability more broadly into a student's learning experience.

Student cohorts are now encouraged to practise managerial decision-making in physically distant and geographically dispersed project management activities. As a result, virtual mobility will allow students to engage in a different form of discourse, enabling the development of a global perspective that credibly extends beyond mature markets. It will also foster the students' reflective ability to understand how society is impacted by business decisions.

The Industry 4.0 transformation delivers challenges as well as opportunities for business schools operating in a global context. With regard to international learning, business schools will need to ensure an international exposure for all their students.

The virtualisation of learning with emerging technologies will help to break down the economic, intellectual and emotional barriers that have so far prevented students from acquiring immersive experiences.

It will be an exciting experience for everybody involved in management education. ■

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Sustainability and the MBA

Andrew Main Wilson is CEO of the Association of MBAs (AMBA)

a crisis consists of two things: a danger and an opportunity. This is especially prudent when considering the state of our global environment and depletion of Earth's natural resources.

The simple fact is that companies will be unable to sustain growth on the scale they hope for, unless these leaders – and leaders of the future – rise to the challenge a new way of working.

AMBA – The Association of MBAs – is the international impartial authority on postgraduate business education and the only global MBA-specific accrediting body. The Association accredits programmes at 259 business schools worldwide. AMBA is also a professional membership association with 34,000 student and graduate members in more than 150 countries, connecting MBA students and graduates, accredited business schools and employers across the globe.

A solid understanding of sustainability

Last year AMBA unveiled the findings of its biggest ever Careers and Salary Survey of 3,355 members in 120 countries, which revealed seven out of 10 MBA graduates agreed that their MBA had given them a solid understanding of the impact of sustainability issues (such as water scarcity, carbon emissions restrictions and social inequality) and on business performance.

Almost nine out of 10 (86%) agreed that working for a responsible and sustainable organisation was as important to them as high salary. Another AMBA survey of 2,000 of our student and graduate members, and found that 71% had received modules in ethical and sustainable leadership during their MBAs and 68% believe employers will be looking for these skills more and more in the future.

This is great news but more needs to be done.

In 2016, I became Chairman of United Nations' PRME (Principles for Responsible Management Education). Its mission is to champion responsible management education, research and thought leadership globally. The world is looking to leaders in business and education to play lead roles in solving our planet's resources, energy and social equality problems.

Shortly after my appointment to United Nations PRME, I interviewed Paul Polman, Global CEO of Unilever. He agreed that while no one company has the answer to the sustainability dilemma, business schools can work collectively to address this.

He said: "We need to make these multi-dimensional – economic, social, environmental – and have broader coursework between different departments. The silos we have to watch out for in companies, as we move this agenda forward, also exist in universities, so the more we can move towards horizontal training and get people exposed to the social, psychological and economic issues, the better the human beings we will create. This is a challenge for MBA programmes."

In saying this if we can join forces and take the sustainability agenda forward, Polman told me we have a realistic opportunity, within the next 15 years, to eradicate global poverty.

Doing this is will benefit of all of us. The effects of runaway climate change, poverty and the refugee crisis, plus increasing unemployment, are more apparent each and every day.

The role of the business school

In a planet riddled with volatility, uncertainty, complexity and ambiguity, leaders from AMBA-accredited business schools regularly tell me that content and discussion sustainability and ethics is the red thread that runs through all their programmes and in an ever-changing world, this is something that needs to be at the forefront of the minds of their graduating classes.

Returning to my opening comment, the planet is facing an ecological crisis and business schools are turning this danger into a significant opportunity.

In May 2018, Deans and Directors from the AMBA-accredited Nordic schools participated in an exclusive insight panel to discuss the future of MBA programmes at AMBA's Global Conference 2018 taking place in Stockholm, Sweden.

Given that the Nordic region is arguably one of the most innovative parts of the world and sustainability, I was interested in their insight around sustainability and the innovative ways in which they're nurturing a sustainability mindset in their student cohorts.

AMBA Chair, Bodo Schlegelmilch moderated a focus group around the challenges, opportunities and innovations facing business educators in the region.

The discussion highlighted business schools' commitment to the triple bottom line business model, that is, people, planet, and profit. Schlegelmilch stressed the importance of teaching students the skills related to the sustainability of our planet.

Håkan Ericson, Director of the GU School of Executive Education at the School of Business, Economics and Law, University of Gothenburg, said his school is pursuing a clear strategy to make sure all master programmes represent aspects of the triple bottom line business model. He said: "Sustainability in all three aspects is prevalent in all of our master programmes. We do focus beyond profit."

Irene Rosberg, Executive MBA Shipping & Logistics Programme Director (The Blue MBA) at Copenhagen Business School, also explained that it was important for employers to have MBA graduates who can understand the challenges of today and come up with innovative solutions. She said: "Sustainability is of course part of the strategy."

"The world is looking to leaders in business and education to play lead roles in solving our planet's resources, energy and social equality problems"

Ericson emphasised that sustainability is an important means for business schools to stay relevant in a constantly changing environment.

Building on this point, Schlegelmilch introduced the innovative concept of 'MBAs for rent', explaining that in light of today's complicated business environment, there are many challenges to navigate. He said: "Imagine if, in three or five years, degrees were for rent and an MBA wouldn't last a lifetime."

This could mean, according to Schlegelmilch, that MBA graduates would have to come back to business school every three or five years to learn about the latest developments in the industry and renew their knowledge – especially on sustainability initiatives.



Hanna-Riikka Myllymäki, Business Area Director, Degree Programs at Aalto University Executive Education, also explained that taking into consideration the unprecedented speed of change, and the need to constantly acquire new competencies, business schools must keep the degrees up-to-date. She said that it was a crucial time to make individuals see the need to renew their education in order to be competitive in the market.

So which employers are successful rising to the challenge of the sustainability agenda?

Peter Lacey, Global Managing Director for Sustainability Services at Accenture Strategy, was interviewed at AMBA's Global Conference for Deans and Directors in Venice Italy, where he gave the example of one of the world's leading disruptive businesses.

"Airbnb is fundamentally clearing inefficient markets," he told me. "It is better matching supply and demand using digital technologies, with assets that are idle, wasted resources, and they're finding they can connect these with customers and produce a better customer experience. They're addressing wasted capacity – albeit indirectly – and it's having a game-changing effect. This means we don't have to run hotels at empty capacity."

Lacey added: "The key [to a sustainable future] is about using the power of business to drive the products and services people want and to fundamentally think about that in a different way, that delivers the ultimate goal of sustainability: enough, for all, forever."

The situation is obvious: our planet is under pressure. Resources are finite, global terrorism is rising, social inequality is a prevailing issue. There is a growing trend among MBA graduates towards working together for a sustainable future and AMBA is committed to driving forward this long-term approach to business and societal change.

Be responsible or take risks

As a business leader, you have the choice to be responsible or take risks. Responsibility is about considering the impact that we have on our colleagues, clients, sector and function, and society. Even the most successful businesses cannot operate in a toxic environment, so there is an imperative to take an interest in the wider world, and focus on nurturing ethical practices and building a sustainable and socially responsible culture.

In 2017 AMBA celebrated its 50th Anniversary, dubbing it, 'The Year of the MBA' and my belief is that it's never been more important to bring the MBA community together and create positive change across the world; sharing our ideas on responsible and ethical business, and understanding how a shared purpose around sustainability is the key to long-term shared success.

As brands can rise or die by their CSR credentials. Companies are being defined by their purpose and values, how they improve the lives of customers, and how they enhance the quality of life for their employees. By placing purpose maximisation alongside profit maximisation, and fostering a culture that promotes this, companies can unearth new sources of innovation, and help people express these values in their work.

Many studies show that people are not motivated by money, but by emotion. I believe businesses can have the best of both worlds: establish more sustainable ways of working that don't compromise profit and growth, but build on them for the long term.

Sustainability is a core principle of AMBA-accreditation criteria and all AMBA-accredited MBA curricula must emphasise the impact of sustainability, ethics, and risk management on business decisions, performance, and society as a whole.



The impact of this policy is evident. More than seven in 10 (71%) respondents to AMBA's Career and Salary Survey agreed or strongly agreed that their MBA had given them a solid understanding of how sustainability issues impact business performance.

We expect that this year AMBA will welcome its 37,000th MBA student and graduate member into our global network of MBA student and graduate business leaders. I believe this growth is integral to our mission, as AMBA is set to become the world's largest and most exclusive network of MBAs.

The reason for the importance I place on our growing numbers is two-fold. First, this international network is creating a body of like-minded innovative individuals, who can collectively share though leadership, seek guidance from, and offer advice, online and at networking opportunities in various countries.

The second reason our swelling number of members is so vital, is that we are working to create a collective force for good.

As more forward-thinking MBA graduates move into roles across business and society, they're bringing with them ethical, responsible, and sustainable leadership ideas, and initiatives that are having a positive impact on our world.

Our MBA scholarship is offering six individuals from six continents a collective scholarship of US\$50,000 to support them in their studies and we've already awarded four of these scholarships.

I've been inspired and humbled by the scholarship entries and I'm encouraged by the progress that AMBA's global force for good – of which all our members and accredited Business Schools are an integral part – is set to make across the world.



Purpose

A major focus of the work we do at AMBA is changing perceptions of the MBA from a business qualification, to being key to global societal and positive change. A key differentiator in this work is instilling a sense of purpose in the leaders of today and tomorrow.

Business author and guest lecturer at Copenhagen Business School and the IT University of Copenhagen Erik Korsvik Østergaard has told me that a purpose-driven leader focuses on purpose and profit at the same time, but has purpose as his or her cause, value-creation as his or her goal, and profit as the result. In short, it's OK to make money, as long as you work for purpose too.

He explains that there are various types of purpose-driven businesses, but they all adopt a way of balancing purpose, people, planet, and profit. The financial side of business is very much part of this balance.

Part of my job is finding out the impact that the MBA is making to the world in terms of business, economics, poverty alleviation and social mobility.

In the past year alone my team and I have interviewed to a wealth of MBA graduates, who are making a difference across the world:

- one who has set up an off-shore centre to promote business growth across west Africa;
- one strengthening diplomatic relations between Russia and the UK;
- one who is working across government in Bhutan;
- another who is promoting education for street children in Caracas;
- one who is striving to preserve and protect the art and antiquities from war-torn Syria;
- a group of AMBA members saving women in Bogota from domestic violence through entrepreneurial projects;
- one who is consulting with charities across Africa, to ensure that their good work is not misdirected;
- one who is rejuvenating the engineering sector in Brazil by creating more points of entry for women;
- one who is captaining the Belgian football team in next month's FIFA World Cup and lobbying to loosen the corporate clutches on 'the beautiful game', allowing more people to afford to spectate affordably;
- and one who is working to combat modern slavery in the UK.

And those are just a few of the stunning MBA stories we hear about in the AMBA office every week. In businesses across the world, MBAs are putting purpose before profit and taking a long-term sustainable view; revolutionising how companies are run and taking our economies forward in innovative and inspirational ways.

All these people have told me they wouldn't have been able to have the knowledge, the network or the courage to do these things had it not been for their MBA. As a group of MBA graduates, they're a purpose-driven global force for good.

THE BUSINESS OF BUSINESS SCHOOLS

Kai Peters, Howard Thomas and Rick Smith suggest that while much has been written about business schools from historical and critical perspectives not enough has emerged from an additional viewpoint – the lens of the business of business schools



ne can use any number of lenses to analyse the development of business schools over the past hundred or so years. But we now need an additional viewpoint – the lens of the business of business schools.

The historical lens

Rakesh Khurana, the renowned Harvard business school professor, has outlined the history and evolution of US business schools from their beginning in the late 19th and early 20th century. He shows how business schools evolved from, effectively, vocational trade schools through to their present state. He cites the tremendous influence that the Ford and Carnegie studies of 1959 had in the repositioning of business schools from practical institutions into academic behemoths.

These two studies, known as the Foundation Studies, are central to an understanding of business education and the business of business schools for every dean and senior business school manager around the world.

As Khurana outlines, foundations, between 1900 and 1935, provided 64% of all grants to US universities both for new initiatives and for existing institutions and thus their money has had tremendous influence over the direction of education.

After the second world war, both the Carnegie and Ford Foundations felt that business schools needed to professionalise and grow beyond their origins. Importantly, in the midst of the Cold War poor-quality business education was seen to threaten the health of the economy, democracy and the American way of life. By 1960, \$35 million had been donated to a handful of business schools. And with that much money at stake, there were strings attached.

Schools were to professionalise, with faculty holding doctorates and producing graduate-level academic publications; students were to be taught quantitative methods and behavioural sciences – and only those academically qualified were to be admitted.

And, while not obviously stated but clearly understood, schools were to have an anti-communist, pro-business and clearly capitalist orientation. While the grants that flowed in the 1950s set the scene, the 1959 Foundation Studies codified the expectations and created the framework for the dominant business school model and paradigm that still, for better or worse, exists today.

This paradigm also formed the basis for a second crucial driver in the business of business schools. In a 2005 article for AACSB's *BizEd*, Andy Policano, then Dean of UC Irvine in the US, wrote:

"Few people can remember what it was like before 1987 – what I call the year before the storm. It was a time when business school deans could actually focus on improving the quality of their schools' educational offerings. Discussions about strategic marketing were confined mostly to the marketing curriculum. PR firms were hired by businesses, not business schools. Most business schools had sufficient facilities, but few buildings had marble floors, soaring atriums, or plush carpeting. Public university tuition was



The 'storm' of rankings changed everything. In simple terms and for better or worse, the advent of rankings in 1987 marked the dawn of the era of business schools as businesses with the rules of the game laid down by the **Foundation Studies**

affordable for most students, and even top MBA programs were accessible to students with high potential but low GMAT scores."

The 'storm' of rankings changed everything. In simple terms and for better or worse, the advent of rankings in 1987 marked the dawn of the era of business schools as businesses with the rules of the game laid down by the Foundation Studies.

Now, 30 years later, these rules of the game continue but have also evolved in the present era of disruption. As authors, our forthcoming book, Disruption in Business Education, Emerald Publishing 2017, investigates these challenges.

The business lens

As an organising principle in considering the management of the business school and the associated activities and offerings, consider a simple value chain (see Figure 1)..

Not every school is active across the whole spectrum of programme possibilities and not all value chains will therefore carry the same relevance. Depending on the unique situation of each institution, the overall value chain will be reconfigured to reflect the business system and processes of each level of a business school's offerings and activities.

At each level, beginning with undergraduate education and proceeding along a probably arbitrary age-influenced continuum, there are different components that comprise that chain, drivers that are relevant, and the skills and competencies a school requires at that level. In sales and marketing terms, undergraduate education is a business-toconsumer and consumers-parent proposition with a path to market largely influenced by centralised placement services such as UCAS in the UK.

As one progresses along the age spectrum, the business-toconsumer model holds true for pre-experience postgraduate students but a centralised recruitment system no longer exists. For postgraduate, post-experience candidates, as for open-programme executive candidates, business-to-business consumer marketing is required and for executive education, business-to-business relationship marketing is needed.

Income varies considerably along this spectrum. For all of the business-to-consumer and business-to-business consumer programmes, income per day, what we phrase the 'revenuedelivered-view' is a straight-forward calculation of tuition x classroom occupancy/days taught.

For customised executive education and similar business to business activities, a comparable calculation sometimes holds true.

More often than not, however, day rates are contractually fixed and are not a direct factor of participant numbers. The variance in income is tremendous. Where custom organisation development consulting can generate only €2,000 per faculty day, the pricey US EMBA programmes can generate €200,000 per faculty day. Between undergraduate and postgraduate programmes, revenue can easily vary between €2,000 per day and €30,000 per day.

While we do not propose running business schools purely on the basis of income per day, surely knowing income per day could aid in sensible decision making. Alas, we do not see many schools calculate along these lines.

Beyond income levels per activity, equally important to examine are the increasing elements of disruption and substitution that have come to play a significant role in the business school landscape.

Schools increasingly face 'make or buy' decisions at practically each stage of the value chain. At one end of the spectrum there are schools where almost everything is managed and delivered in-house. At the other end, there are schools that function largely as co-ordinating mechanisms for the purchasing of external services. At nearly every stage of the continuum there are now complementary service providers who will come to the aid of schools to help them provide needed capabilities.

The undergraduate value chain illustrated in Figure 2 is an example of the various stages in the educational process. 'Finding students' has become an industry in itself. Nearly 40% of international students are recruited via agents overall, with about 55% of students in Australia and 11% of students in the US forming the 'bookends'.

While many agents are small operations, increasing numbers of large players have emerged who recruit, often house and sometimes teach foundation degrees and pre-sessional English to students.

While most business schools supplement core teaching capacity with adjuncts and associates for special skills and flexibility, a school can, and many do, use only adjuncts to teach. In the past year, we have become aware of specialist



€13k

The estimated number of business schools across the globe is over 13,000

€2k

Custom organisation development consulting can generate only €2,000 per faculty day €200k

The US EMBA programmes can generate €200,000 per faculty day. Between undergraduate and postgraduate programmes, revenue can easily vary between €2,000 and €30,000 per day



700k

At the moment there are over 700,000 students studying for UK degrees outside the UK. This is more than the number of students actually studying at degree-awarding institutions inside the UK

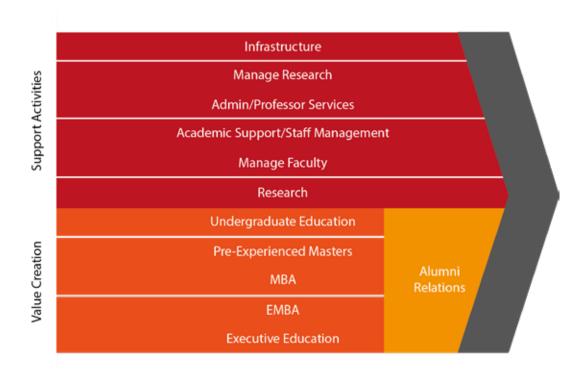


Figure 1

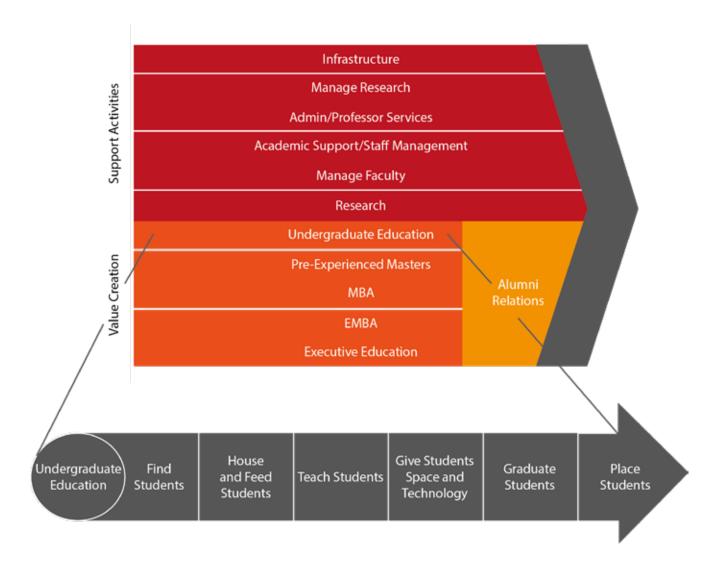


Figure 2



Whether we like it or not, business schools need to be managed in a business-like, professional and careful manner whether they are longestablished incumbents or newcomers to business education or to one of the distinct value chains in the mix of programme possibilities

agencies who supply a roster of teaching capacity to a number of London-based branch campuses of regional UK universities.

Providing students with technology or, better said, providing white-label online education is also a big business. Business schools can source provision in exchange for incomesharing arrangements with a significant number of potential partners who will build single programmes or a whole range of programmes, including MOOCs.

Finally, to round things off, business schools can be set up and run using degree-awarding powers another educational provider.

At the moment, there are over 700,000 students studying for UK degrees outside the UK. This is more than the number of students actually studying at degree-awarding institutions inside the UK.

The services, noted above, do not come cheap nor minus attached strings. Getting it wrong, allowing external providers to cherry-pick lucrative services and price them to their own advantage rather than to the advantage of a school is something we have seen increasingly over the past decade.

While agency relationships tend to be multiple and local, student housing or online relationships tend to be large and long-term. Business schools increasingly find large multinational players with comprehensive legal departments and sophisticated contracting on the other side of the negotiating



table. Business schools, on the other hand, tend to be well-meaning amateurs and SMEs in comparison.

Whether we like it or not, business schools need to be managed in a business-like, professional and careful man-

ner whether they are long-established incumbents or newcomers to business education or to one of the distinct value chains in the mix of programme possibilities.

If this short article or our longer book achieves one thing it will be to encourage business schools to think through the consequences, short-term and long-term, of their own structures and financial

arrangements.





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Adapted from: Rethinking the Business Models of Business Schools: A Critical Review and Change Agenda, Emerald Publishing January 2018. Kai Peters, Richard R Smith, and Howard Thomas

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Innovation, investment in focus at EBACE2018





ointly hosted by the National Business Aviation Association (NBAA) and the European Business Aviation Association (EBAA), the annual European Business Aviation Convention & Exhibition (EBACE) continues to stand as one of the world's premier aviation events, hosting Europe's top business leaders, entrepreneurs, and other industry stakeholders, as well as regulatory officials and other policymakers, to discuss the most pressing matters affecting the industry.

EBACE2018, which took place 29-31 May in Geneva, continued this proud tradition with discussions regarding such important topics as the probable effects from the upcoming implementation of Brexit which will carry ramifications not only for European operators, but business aviation stakeholders worldwide. Additional sessions at EBACE2018 addressed matters including operational safety and security, access to European airports and airspace and use of helicopters as a business tool.

The ongoing personnel shortage across the global business aviation industry, and with it the need to attract new personnel to fulfill a multitude of roles, are also key concerns. Following a successful introduction last year,

Careers in Business Aviation Day returned to EBACE2018 to introduce students to business aviation and help ensure this next generation of aviation leaders has the opportunity to explore and learn about the industry, and its many rewarding career opportunities.

Perhaps the most significant announcement to come from this year's event concerned the industry's new initiative focused on raising awareness and adoption of available and emerging alternative jet fuel options, and the introduction of the Business Aviation Guide to the Use of Sustainable Alternative Jet Fuels (SAJF).

Promoting alternative fuels

Business aviation has long been on the forefront of technological innovation. Advancements in winglets, composites and propulsion systems, as well as technologies such as GPS and ADS-B, have not only made business aircraft more efficient, but have also delivered gains in safety and environmental sustainability.

The business aviation community has also long been dedicated to reducing greenhouse gas (GHG) emissions from aircraft, with a proven record of advances in carbon reduction. Previously, the industry's commitment to emissions reduction was codified through the Business Aviation Commitment on Climate Change, unveiled in November 2009, which outlined steps to realize a 2 percent improvement in efficiency per year from 2010 until 2020, carbon-neutral growth from 2020 onwards, and a 50 percent reduction in carbon emissions by 2050, relative to 2005.

It's quite fitting that EBACE marked the introduction of this new, concrete step towards widespread adoption of emissions-reducing alternative fuels. As has been shown through numerous announcements and demonstration



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"From a global standpoint, our aim is equally certain: business aviation is an industry with a past, present and future commitment to emissions reduction" the European continent, so too has EBACE grown to become one of the world's premier aviation events, in line with other global events hosted or co-hosted by NBAA.

By every measure, EBACE2018 was a great success, and we look forward to welcoming everyone back to Geneva for the 2019 edition of EBACE scheduled for 21-23 May 2019. Similar to the role EBACE plays in the European business aviation community, so too has the Asian Business Aviation Conference & Exhibition (ABACE) grown to become the premier event



flights over the past several years, alternative fuels are already a reality; the technology is here, but the limiting factor against widespread adoption has primarily been the lack of production facilities, and widespread distribution sources.

Through this new initiative, we hope that business aviation may advance the proliferation of SAJF at all the logical touchpoints: the manufacturers, the ground handlers and the operators, at the national, regional and international levels.

As an industry, we want to answer questions that aircraft operators, FBOs, owners, pilots, fuel providers, airports and others may have about these new fuels, and we want to allay any concerns they may have about the performance, safety and appropriateness of using them wherever they are available.

From a global standpoint, our aim is equally certain: business aviation is an industry with a past, present and future commitment to emissions reduction. That commitment is shared by the industry globally, here in Europe, back in the United States - and locally at every airfield and manufacturing facility.

The primary stakeholders in this initiative include the European Business Aviation Association (EBAA), General Aviation Manufacturers Association (GAMA), the International Business Aviation Council and National Air Transportation Association (NATA) and NBAA.

Learn more about business aviation at NBAA-supported events

As recognition has increased for the many contributions of business aviation to citizens and communities throughout focused on the industry's growth throughout China and the Asia-Pacific.

Jointly hosted by the NBAA and the Shanghai Airport Authority (SAA), and coordinated with the Asian Business Aviation Association (AsBAA), ABACE2018 underscored the enthusiasm, growth and potential for business aviation in the Asian region. Next year's ABACE will take place in Shanghai from April 16-18, 2019.

I would also like to invite readers of *World Commerce Review* to join the estimated 27,000 industry professionals attending the upcoming 2018 NBAA Business Aviation Convention & Exhibition (NBAA-BACE), which will take place October 16-18, 2018 in Orlando, FL.

Widely regarded as the most important three days in business aviation, NBAA-BACE will once again bring together current and prospective aircraft owners, manufacturers and customers into one meeting place to get critical work accomplished, all while once again showcasing the size, strength, and diversity of this vital global industry.

NBAA remains committed to protecting and promoting the global development of business aviation. On behalf of the more than 11,000 members of NBAA, I invite you to consider attending one or more of these impressive events, where you may experience the strength and scope of our industry firsthand.



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EMBRACING THE FUTURE

As the 2018 edition of the European Business Aviation Convention & Exhibition (EBACE) concluded, the event once again served as a powerful and forward-looking showcase for the European business aviation industry. Simon Williams, Isle of Man Director of Civil Aviation, shares his thoughts

he Isle of Man Aircraft Registry was represented at the 2018 European Business Aviation Convention & Exhibition by Simon Williams, Director of Civil Aviation and Adrian Tickle, Flight Operations Technical Manager. This very successful event concluded in Geneva on 31st May 2018 and I note that the trade show drew 418 exhibitors which represents an increase on last year. There were 54 aircraft on static display which reflected the broad spectrum of business aviation, including ultra-long-range business jets, turboprops and helicopters. It was great to see a very strong Isle of Man industry presence at the show as ever¹.

"This was a decidedly upbeat, optimistic EBACE week, which highlighted the passion and enthusiasm at the heart of the Business Aviation community," said Juergen Wiese, chairman of EBACE co-organizer, EBAA. "The show reflected a reverence for the industry's history, as well as an embrace of its future." This was a sentiment shared by Ed Bolen, President & CEO of EBACE co-organizer, NBAA: "The new aircraft models, the new business models, the featured speakers and the trends we discussed all point to an energetic industry looking toward tomorrow."

EBACE 2018 was however initially tinged with sadness at the outset when it was announced that a well-respected industry figure, Serge Dassault, had sadly passed away at the age of 93. It was a notable mark of respect for this great industrialist that the organisers chose to dedicate the event to his memory.

EBACE 2018 started with the unveiling of an industry-wide initiative to further the development and adoption of Sustainable Alternative Jet Fuels. With international climate and emissions requirements in mind, the Isle of Man Aircraft Registry team are working hard to support clients understand and meet CORSIA requirements².

Thereafter, the key themes that emerged were: Brexit; European airport and airspace access; business aviation's role in times of crisis; and the promotion of career opportunities. Yves 'Jetman' Rossy was the keynote speaker and understandably attracted a great deal of interest.

A key 'market intelligence theme' that I am now noting with more frequency, is that the US business aviation market is performing increasingly well. Demand appears not to be as strong currently in Europe but there does seem to be increasing confidence that the US-led resurgence will have a positive 'knock-on' effect in Europe and beyond.

This all has to be tinged with a sense of realism given talk of 'trade wars' between major nations which is inevitably exacerbated by continued global political and financial uncertainty. But it looks like there are clear signs of sustained increases in business aviation activity and associated improvements in positive market sentiment. Clearly this is a welcome development.

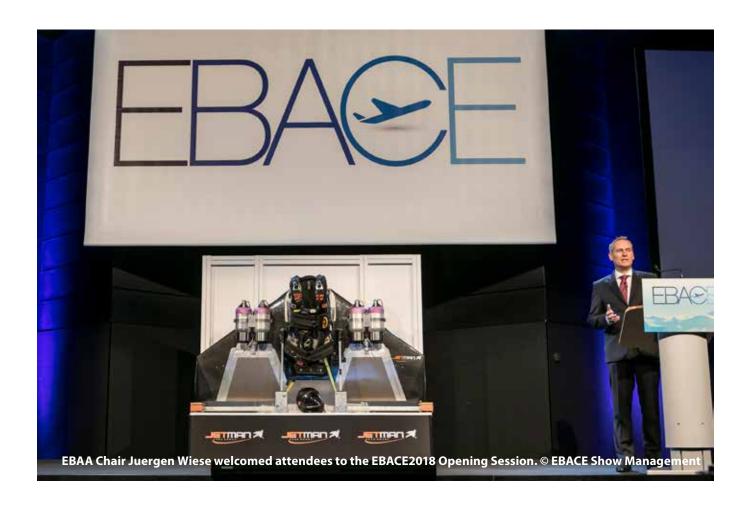
Some EBACE attendees and *WCR* readers may be surprised that IOMAR does not have an exhibition booth at this or other events. Such a high-profile arrangement might be expected of the 6th largest private/corporate business aviation registry in the world. However, we have deliberately settled on a more humble modus operandi that serves our clients (and the Registry) well and has proven to be very successful.

Instead, we establish a meeting programme directly with new/existing clients and then meet with them at the location of their choice. We put the client first and go to them, rather than expecting the reverse. We prefer to focus on delivering matters of real substance based on our ethos of Safety with Service. Or put another way: 'facilitating high regulatory standards whilst delivering excellent customer service'.

I spent the entire EBACE event in back-to-back meetings, followed by evening networking events. I noticed a real sense of focus, genuine enthusiasm and optimism in those that I met. It was an altogether very positive and heartening experience.

In particular, I was delighted to note the consistent, strongly positive feedback for the hard-working team at the Isle of Man Aircraft Registry. I am not one given over to hyperbole or exaggeration, so am genuinely delighted to have received such a strongly supportive response from our clients, many of whom have been with us since we commenced operations in 2007.

Europe is very important to the Isle of Man Aircraft Registry and we have grown to become the second largest European private/corporate business aviation registry. From my perspective as a Registrar and Aviation Safety Regulator I anticipate that Brexit will have little or no effect but we stand ready to assist in the face of unforeseen challenges. We have members of our team whose main focus is on working with and supporting our European based clients; we will do our utmost to help manage any challenges they face







This will allow us to be at the forefront of aviation regulation whilst maintaining high standards of ICAO compliance and importing best practice from the UK, Europe and beyond. All of our work is based on my central vision that the Isle of Man becomes a centre of aviation excellence

to a successful outcome, so that they can just get on with operating their aircraft safely and efficiently.

One of our main priorities this year is to complete the 'repatriation of the aviation legislative process from the UK' to the Isle of Man. Later this year I anticipate that the powers will be in place for us to be able to: draft; consult on; and then put into operation secondary legislation in a nimble and responsive fashion.

This will allow us to be at the forefront of aviation regulation whilst maintaining high standards of ICAO compliance and importing best practice from the UK, Europe and beyond. The new Isle of Man Air Navigation Order will be laid out to mirror the ICAO Annexes with a strong focus on clarity and accessibility. All of our work is based on my central vision that the Isle of Man becomes a centre of aviation excellence.

The Isle of Man Aircraft Registry is an international, off-shore, highly ICAO compliant aircraft register with as many clients outside Europe as there are within. Thus we balance the wider international efforts with those focussed on Europe. In so doing, we strive to meet the varying demands of a wide range

of operational scenarios and this aspect of our work makes the job very interesting, enjoyable and satisfying.

It is very pleasing to receive positive feedback from our clients but we will never become complacent because there are always improvements that can be made. The icing on the cake is to have received two awards from *WCR* this year; one of which was for the second year running!

In summary, EBACE 2018 was unquestionably a success. Business aviation is a great industry populated by clever, dedicated and passionate individuals; the technology and continual advances in this area are extraordinary. I believe that we can look to the future with well-founded optimism. I very much look forward to attending EBACE 2019 and beyond.

Next up is the Isle of Man Aviation Conference which takes place here on the Island on 13th June 2018. The Conference was over-subscribed last year and we are experiencing similarly strong interest this time round. It is a great opportunity for new and existing clients to meet us, discuss contemporary aviation issues and to continue to build on our increasingly successful strategic partnerships. I can't wait! ■

1. Please follow the link for further details: https://www.iomaircraftregistry.com/about-us/overview/isle-of-man-aviation-directory/ 2. Follow the link for Industry Notice 26 which was published on 13 Feb 2018:

https://www.iomaircraftregistry.com/media/1579/in-026-carbon-offsetting-and-reduction-scheme-for-international-aviation-corsia.pdf

To find out more about the Isle of Man Aircraft Registry please visit our web site: https://www.iomaircraftregistry.com/

If you missed Isle of Man Director of Civil Aviation, Simon Williams at EBACE 2018 and would like to follow up with him then please either call: +44 (0)1624 682358 or email: simon.williams@gov.im



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David Briggs-Wilson: E david@hermes-aviation-consulting.com T +33 3 8331 0018 Chris Oldfield: E christopher@hermes-aviation-consulting.com T +44 773 855 8887 n recent years, a clutch of aeronautics startups has sparked renewed interest in supersonic travel, which stalled after the Concorde's retirement in 2003. These startups are racing to create the next generation of supersonic planes – and they're set to go faster than ever before.

There are two approaches to developing the next generation of supersonic planes: creating private supersonic jets and trying to make supersonic planes for larger groups. The goal? To reduce the time spent on long haul flights and make them commercially successful.

All the next generation supersonic planes being developed use slightly different technologies, vary in size and are aimed at different markets.

There is one hurdle that may derail supersonic planes all together. Red tape. The sonic boom from airplanes hasn't been completely eradicated and it's illegal to fly at supersonic speeds above US soil. Concorde's popularity – and what routes it was able to fly – wasn't helped by its supersonic boom. So the latest iterations of supersonic technology are aiming to get around this.

The aim is to stop a sonic boom reaching the ground. These are yet to be fully proven in real-world testing. There may be some respite though as US air traffic officials are looking at rewriting supersonic flight rules. In the future, supersonic planes may need to have their noise certified before they can fly.

There are three firms to note: Boom, Aerion and Spike. And they all agree on one thing, and that is that the demand exists, that fliers want more than standard subsonic flight. They are rethinking supersonic passenger flight (and its business model) from the ground up.

At present, all three are working on prototypes. Spike Aerospace says it tested an unmanned, subscale version of its S-512 plane (dubbed the SX-1.2) on seven short test flights in 2017; Boom will fly a one-third scale plane in 2019 and Aerion Supersonic also wants to test next year. If all goes well passenger flights could take place towards the mid-2020s.

That might sound a long way off, but the race to go supersonic again finally has some momentum behind it. There are really three big areas that have changed since Concorde was designed: aerodynamics, materials and engines. Wind tunnels can now be replaced by computer simulations, carbon fibre composites are lighter than the materials Concorde was made of and engines no longer require afterburners.

The efficiency gains mean that you can today build a supersonic aircraft that is 75 per cent more efficient to operate than Concorde, which means it can be a lot more affordable to passengers.

Boom's approach to supersonic travel is to create a 55-seater commercial airliner, which will fly at Mach 2.2 and have seats priced around \$5,000 for transatlantic flights. Boom seems to be taking aim at corporate frequent fliers.

Boom's XB-1 demonstrator plane, which will fly next year, is currently being manufactured. The engines have arrived in Boom's hangars and the company is in the process of





building the tail and wings. Currently, Boom has 76 orders from five airlines – including Richard Branson's Virgin Group.

As far back as 2015, Aerion agreed a deal to sell 20 of its jets to airline charter service Flexjet. The AS2 plane will be able to carry eight to 12 passengers and is firmly focussed on business uses. They project a market for 300 AS2s over the first 10 years of production, and think a business jet is the right place to relaunch supersonic flight, expecting that airline aircraft will follow as they prove the market for efficient supersonic travel.

Aerion has been developing its supersonic technology since 2003, when Concorde stopped its service. In December 2017,

Aerion started working with Lockheed Martin, the developer of supersonic fighter planes, on its AS2 plane.

But, despite all the hype supersonic flights are still some years away from reality. And that's if everything goes smoothly. This time around though, things may be different, and there are lots of indications that it should start happening very soon.

Most frequent long-haul travelers will be salivating at the idea of halving 15-hour flights from Hong Kong to New York, or Tokyo to San Francisco, or just over 3 hours for London to New York. A decade from now, intercontinental air travel is likely to be very different. ■





Spike's S-512 plane, a windowless business jet, is planned to reach speeds of Mach 1.6 (1,227mph). Spike says it has patent-pending 'Quiet Supersonic Flight Technology' that will stop a sonic boom reaching the ground. The company says it tested an unmanned, subscale version of its S-512 plane (dubbed the SX-1.2) on seven short test flights in October 2017. It expects the full-sized, full-speed S-512 to enter service in 2023, after the aircraft receives the required certifications from the FAA and international aviation authorities.





The Isle of Man – the place for maritime business

Dick Welsh is Director of the Isle of Man Ship Registry

hy is the Isle of Man the go-to place for maritime business? Is it maritime heritage; political and economic stability; quality of life; professional services; pro-active government; quality register; innovation; digitisation; maritime clusters? No, it is a combination of all of the above, and more.

The Isle of Man, as an island nation has a long standing maritime history and tradition. This was reinvigorated in the 1980s when its government committed to run an international ship register with the vision that this would form the basis for an international maritime centre by attracting shipping companies and professional services to facilitate this new business. Thus a new sector to the Island's diverse economy was born.

Today, the maritime centre is thriving with commercial yachting services alongside traditional shipping services and a full range of professional services companies providing a one-stop shop for all maritime related business.

At the heart of its success is the highly regarded Isle of Man Ship Registry, boasting a register of over 18 million gross registered tons which competes on a global stage and outperforms many of its European neighbours' traditional shipping centres. But the register is more than its tonnage. It has built its reputation on the service it provides to an industry which expects ever more from its Flag States.

Aligned with the quality of its fleet, which it controls by working with quality owners and quality ships, this really is a winning package. In addition to this, in an ever-changing global marketplace, the Isle of Man has stayed ahead by leading on digital systems and digital transformation to provide the very best service to its clients. Service which is truly 24/7 with a client-focused and pragmatic approach to regulation. Its global reach and promotional activity is such that the majority of its client base is now outside of Europe, with over 60% of its tonnage controlled from the major shipping centres of Asia.

Set up on a cost neutral platform by the government, the Ship Registry is a regulatory body which does not confuse its purpose with generating revenue for the State. Thus it is able to keep its fees low and cover its costs. With these commercial advantages added in, the entire offering makes a compelling choice for ship and yacht owners alike.

The private sector of the Isle of Man is served by two cluster organisations critical to its success: the newly formed 'Isle of Man Maritime' and the 'Isle of Man Superyacht Forum', both working to ensure the Isle of Man is attractive to new businesses and work with government to promote maritime business, employment opportunities, communications, training and education. By working in focused clusters, the message of collaboration in a proactive and robust political and economic setting, with full government support, is out there and becomes a very attractive proposition.



The Isle of Man's two leading maritime sectors work together with the government to great effect. In the traditional shipping sector, many of the clients of the Ship Registry have established bases in the Isle of Man as well as the legal services, finance, insurance, payroll and legal services which have developed to support the sector. And more recently, the superyacht sector which provides services to the growing global industry of large yachts operating commercially and for pleasure.

As part of the British Red Ensign Group of registers, the Isle of Man is best placed to provide Yacht Code expertise and advice to yachts in build and in service. The Red Ensign Group

"... the Isle of Man has stayed ahead by leading on digital systems and digital transformation to provide the very best services which more recently, to the grounds."

registers of Isle of Man, Cayman Islands and UK have the lion's share of large yacht tonnage, with over 90%. With the relaunch of the Large Yacht Code, branded as the Red Ensign Group Yacht Code last November.

There is a very strong message that the Red Ensign is the market leader and works with the industry to ensure the codes remain current and set the bar in terms of safety, pollution prevention and crew conditions and welfare. The Code is recognised as the de-facto international standard for superyacht construction and operation.

So there it is. A modern, maritime success story. Government and private sector working together to create a platform for maritime growth, training and education. In so doing the Isle of Man is the go to place for discerning owners of ships and superyachts, where quality, safety and crew welfare is of paramount importance and all provided and regulated with a friendly, helpful and pragmatic approach.

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To find out more, please visit:

www.iomshipregistry.com or contact us at shipping@gov.im



There's much more to marine insurance than meets the eye

Simon Dixon is an Insurance Risk Specialist with Moore Stephens Brokers Limited

5-minute read that could save you a lifetime of insurance headaches. It's said that in love, what you don't know can't hurt you. But it's completely the reverse when it comes to matters of insurance.

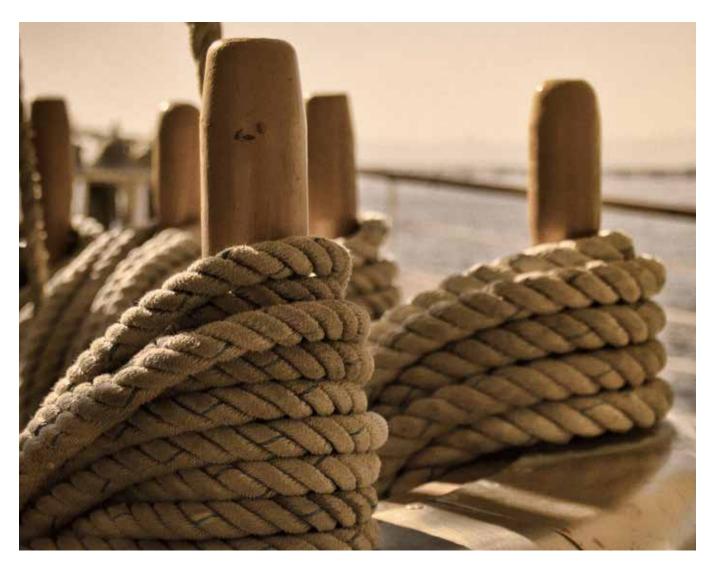
We regularly speak to world-savvy and sophisticated entrepreneurs from all walks of life, and they often express surprise and astonishment when we explain exactly what is involved when insuring that luxurious new superyacht.

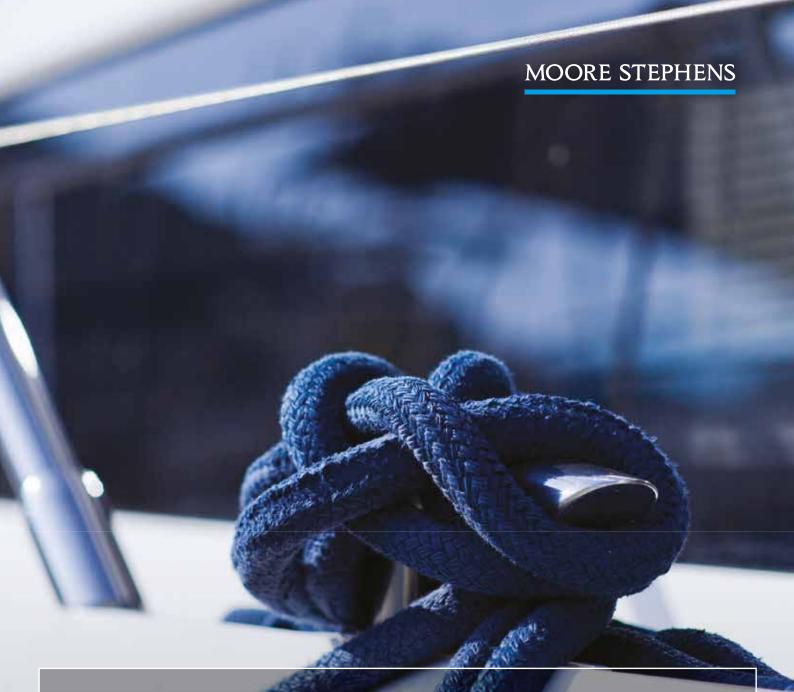
No pun intended, but there's a lot to take on board. You probably haven't thought of it, but we have.

Of course, you want to make sure your yacht has truly comprehensive cover from top-notch insurers and at the right price. That's vital. But it's just the beginning.

That gleaming yacht we see on the surface hides a mountain of insurance liabilities. And just as a mountain needs special skill and expertise to scale successfully, those insurance liabilities need special skills and expertise to manage.

One way or another, owning a yacht involves just about every kind of insurance for which there is a policy, and you or someone you employ, needs to be aware of every one of





The devil is in the detail

We admit it – insurance isn't the most exciting aspect of owning or managing a superyacht. But if you want to enjoy stress-free plain sailing, it's one of the most important to get right.

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them to be fully covered. There's Contents Cover of course, and there's also the expensive toys; perhaps a helicopter or a submersible. They need comprehensive insurance for a wide range of risks too.

Next there's cover for the ever-burgeoning list of environmental regulations and responsibilities - and what about pollution? There's lots of lovely clauses to ponder on this issue alone.

Then there are those things you hope never happen but sometimes do. It's called the unexpected.

Never overlook the plain unlucky stuff as you sail around the world, war risk, acts of piracy and terrorism at sea, third party liability issues such as when a security guard's weapon discharges on board and injures someone, or worse. Or just mundane stuff such as an unexpected but heavy bump with another vessel while berthing.

There is of course the weather, tempestuous and unpredictable, bringing with it storm damage, unscheduled calls in foreign ports, and crew sickness.

Which then leads us to mandatory medical insurance implications. Taking care of your crew doesn't have to cost an arm and a leg, but do it right and it may stop them jumping ship.

There are plenty of booby traps too: perhaps a guest loses a valuable necklace on board; you assume it's covered by the policy, but is it? A visitor slips and injures themselves while on a wet deck; what does your policy offer in terms of third party liability? Or, you decide to charter the yacht to some good friends for a honeymoon. After all, you're fully covered - but are you?

Chartering the vessel as an ongoing commercial enterprise or making it a company asset ushers in a fresh quiver of issues and careful insurance considerations must be made, including the fiduciary duty of all directors. You have a duty in law to protect the company's principal asset, even if the closest you get to water is wearing a Rolex Submariner.

Keeping your insurance strategy ship shape

Large companies often employ a full-time risk manager to worry about these myriad issues and their complexities. But for those who don't want to go down that route, Moore Stephens offers a complete and authoritative assessment

"Then there are those things you hope never happen but sometimes do. It's called the unexpected"

from Accidents to Zone Ratings of your insurance needs, incorporating all risks and liabilities based on decades of thinking and learning about these things day in and day out.

It's what you know and who you know

Moore Stephens ensures you have a complete policy document (it's pernickety, fastidious, detailed; perhaps not the sort of thing you'd choose for bedtime reading - but someone in your organisation needs to). And once we have agreement on all the liabilities and insurable risks, we seek out the best deals for you through our third-party insurers.

One of the key reasons why Moore Stephens can be invaluable to you in this regard is because we know who to approach and why.

Take Hurricane Irma for example. When that massive hurricane hit Cape Verde in August 2017 it resulted in claims exceeding \$5 billion. Prior to this, premium rates had remained more or less the same for some years. In fact, some rates were actually reducing, but as a direct result of that hurricane, some traditional markets have posted 30% to 40% rate rises in one year as they struggle to replenish reserves.

This has given rise to new markets keen to break into the Maritime sector. These new markets don't carry the legacy weight of those losses to such a great extent. Using our knowledge and contacts, we can seek out these markets to negotiate keener rates.

In the end, the service we offer boils down to the same sentiment expressed by those with the most basic of all insurance policies - it's a nice feeling to know you're insured. And it's even nicer to know you are properly and professionally covered by what we believe to be the best service in the business.

Thinking about insurance may not be your thing, but never make the mistake of leaving it until it becomes 'a thing'.

Talk to Moore Stephens today. ■

ABOUT THE AUTHOR:

Simon Dixon is an Insurance Risk Specialist with Moore Stephens Brokers Limited (MSBL) a registered insurance broker intermediating in hull insurance, P&I insurance and all related marine and yacht insurances including crew medical, accident, sickness and life insurance. MSBL is associated with Moore Stephens Crew Benefits (MSCB) which signposts to banking services, foreign exchange and international mortgages, specifically designed for superyachts and the unique lifestyles of yacht crew.

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Seafarer medical benefits – what does the marine industry provide?

Mark Bononi is Director of the Yacht Division at MHG Insurance Brokers

eafarer medical benefits provided by shipowners did not exist until about 30 years ago. Fast forward to the early 1990's, when the birth of seafarer medical benefits occurred.

Someone, somewhere realized that seafarers weren't in fact machines, but rather human beings with wants, needs and desires. But what are vessel owners willing to provide, when the usual primary concern is operating cost? We will address the application of benefits for seafarers in three main sectors, commercial shipping, cruise and superyachts.

The commercial shipping sector

Most seafarers working in the commercial shipping sector hail from non-industrialised nations such as the Philippines and other parts of SE Asia. There are many reasons for this, not the least of which is that the employment environment for shipping is attractive to the residents of those countries while at the same time the necessary level of compensation is attractive to the shipowner.

There is legislation in to protect seafarers and in addition there are organizations such as the POEA (Philippine Overseas Employment Administration). There are also CBA's (Collective Bargaining Agreements) which outline the conditions of employment between a seafarer union (typically) and the shipowner.

While all of these things are better than nothing, they really do not provide the seafarer with more than basic needs and typically a death benefit to the family in the event of a seafarer accident whilst employed.

While the commercial shipping sector has entertained the idea of seafarer benefits in the past, the current economic environment in that industry is such that few offer anything more than the minimum requirements of the above mentioned documents, as well as what is required by MLC 2006, as amended. When benefits were offered, they typically were designed to cover the seafarer when he/she was at home, between contracts.

In addition, the seafarer's family would be afforded medical insurance for the entire year. The economic environment in most of the commercial seafarer countries is such that the cost of these benefits is quite low. However, when multiplied

by the number of seafarers that may be employed by a given shipowner, it becomes a significant line item and one that many shipowners simply cannot sustain in the current environment.

The cruise sector

The cruise sector is completely focused on the 'guest experience' which is the polar opposite of where the focus is on the commercial shipping side. The guest experience is



heavily influenced by the attitude and performance of the seafarer onboard.

It only follows then that to be a long-term success in the cruise industry, seafarers need to be well looked after. This certainly includes a compensation and benefits package that is not only competitive, but again also indicative of the wants and desires of the seafarer.

Most cruise ship companies now offer benefits to at least their high-ranking officers. Earlier this year, MHG published a comprehensive, anonymous report of what the various cruise lines provide to their seafarers.

What is particularly interesting to note are the vast array of options, some of which do not particularly match the size of the cruise operator. In addition, is it is valuable for the various operators in the industry to see what their peers are doing for their seafarers.

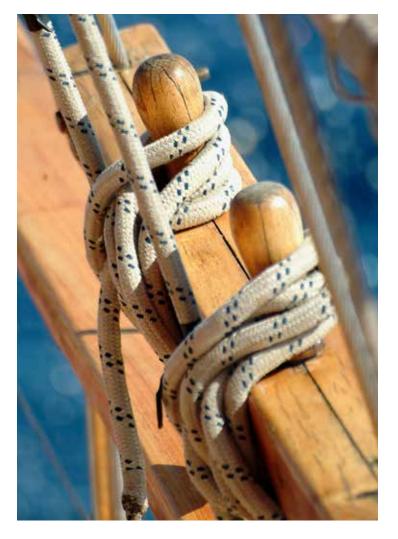
Seafarers working in the cruise sector overlap somewhat with the commercial shipping sector with regard to home country selection (for very similar reasons). However, due to the differing work environment, the expectations of the seafarer are also different. "... as seafarers and their talents become scarce, every operator in the major marine sectors will need to work to stay competitive if they wish to attract and retain them"

It is for this reason that many cruise lines are not only offering medical coverage, but also disability, life and even retirement savings plans. The full suite of benefits still lies with the senior officers, but there are also basic benefits being extended to the crew such as vacation medical coverage.

As the cruise sector continues its rapid growth, seafarer benefits will most certainly be come to more in the forefront of an employer's mind. After all, attraction and retention of great talent is a key component of the success of the cruise line. It certainly is not cost effective to continually need to train staff who subsequently leave for an opportunity where better benefits can be found.







The superyacht sector

Luxury and excess are two words that come to mind when one thinks about the superyacht sector. High net worth individuals, demanding service and attention at the very highest level, yet all the while making it look effortless. This is the life of the 1%, the elite. You may therefore conclude that all the seafarers working on yachts enjoy the cream of the crop when it comes to benefits.

As it turns out, this is not actually the case with every superyacht. Take a moment to think about how a superyacht owner amassed their wealth. It certainly was not by overspending before they were in a position to enjoy their wealth and of course, old habits can die hard. However, one other factor to note about yacht crew, is that they are typically well paid.

Originally this was seen as sufficient for a yacht owner and typically the crew were content. This has changed significantly as the industry has matured. Now, more and more seafarers are expecting to be offered benefits in addition to their salary. Can we really blame them, when they see the lavish lifestyle that the typical yacht owner leads?

So exactly what can a yacht crewmember expect, with regard to benefits? Similar to the cruise sector, they vary considerably from yacht to yacht and size does not always matter. Many smaller yachts in the 30-40m range provide as comprehensive, or better benefits than ones that may be 100m or more in length.



However, the general rule is that the larger the yacht, the more extensive and attractive the benefits package will be. This usually includes year around medical coverage (including home country), disability, life insurance and personal accident benefits.

It may also include an employment benefit in the form of a rotational schedule, which until just a few years ago was not heard of in the yacht sector. There are even some yacht owners who cover the cost of family members, although this is generally restricted to the captain.

Looking forward

Will the commercial shipping sector it come back? Yes. But when, is anyone's guess. But once it does, commercial seafarers

are likely to enjoy medical and other benefits, as part of their overall employment package again. As for cruise and yachts, both sectors are doing quite well and there is no sign of that changing any time soon. There is already much concern that the world's pool of talented and qualified seafarers is drying up quickly.

And while that is a topic for another day, suffice it to say that as seafarers and their talents become scarce, every operator in the major marine sectors will need to work to stay competitive if they wish to attract and retain them. This directly translates into the need for vessel owners and operators to focus on salary and benefits for their seafarers which will keep them afloat for years to come.

ABOUT US

MHG Insurance Brokers introduced crew benefits to the marine industry in 1991 and have since grown into a multi-discipline marine insurance brokerage and adviser. MHG is now recognized internationally for developing innovative crew insurance programs for cruise lines, superyachts and commercial vessels worldwide. With offices and business partners located in Florida, London, Isle of Man, Hamburg and Monaco we are well placed to support vessel owners' insurance requirements in major centers of marine activity. MHG provides insurance solutions and advice to 40% of CLIA's global member cruise lines and 20% of the world's 200 largest yachts.

What we do

Our core business of marine crew insurance has expanded over the years to include liability and casualty cover for the wider marine community: from ship repairers, cruise concessionaires, as well as owners of pleasure craft and similar vessels. Our portfolio of insurance programs is seen as a valuable attraction and retention solution by employers worldwide. Our expertise in this specialized area is regularly utilized as a resource by clients, helping them interpret and stay up to date on regulations and legislation affecting the marine industry, especially in crew employment matters. While we are very proud of this, we believe that what sets us apart is the excellence of service provided to each client from inquiry stage, through the claims process and beyond. Our close relationship with the world's leading insurance markets, combined with an outstanding service team, has positioned MHG as the marine industry's authority on crew insurance.

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To compliment Cello Marine, i-Bos specialises in developing a full range of multi-currency financials, including expenses with Access Financials and bespoke marine-specific document management, using Laserfiche. Both Access Financials and Laserfiche are connected through an API so all information only need be loaded once. We are also linking a digital signature platform for use with the signing of seafarer contracts etc.

i-Bos provides a number of consultancy services. Our team has over 40 years experience in installing and commissioning the latest software in a number of applications, from multi-currency financials to stock and procurement application through payrolls and CRM's systems. i-Bos has the resources and the know-how to help you make the right choice and get the solutions that fit your business. All our solutions can either stand alone or interface together to complete all administration requirements.

We understand that the decision to implement a new business solution is not taken lightly. The commitment shown by your supplier is just as important as the software itself. i-Bos Limited offers a comprehensive service, beginning with pre-sales consultancy and extending into full support for the lifetime of your system.

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- Post Implementation Support

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ABOUT i-BOS

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LIVING

THE









Monaco is among the most famous destinations in the world given its combination of luxury, wealth and extravagance. Its marina, Port Hercules, is no different. An opulent extension of the Principality's flamboyant image; it's surrounded by casinos, luxurious homes, grand hotels and incredible restaurants.

Speak to anyone in the superyacht sector and they will tell you that in September the yachting industry turns its focus exclusively to the Monaco Yacht Show. Over four champagne-fuelled days some of the wealthiest individuals on the planet will be converging on Monaco, where 125 extraordinary one-off superyachts built by the world's most respected shipyards are showcased. Over 580 leading companies from the yachting industry will be there to welcome them.

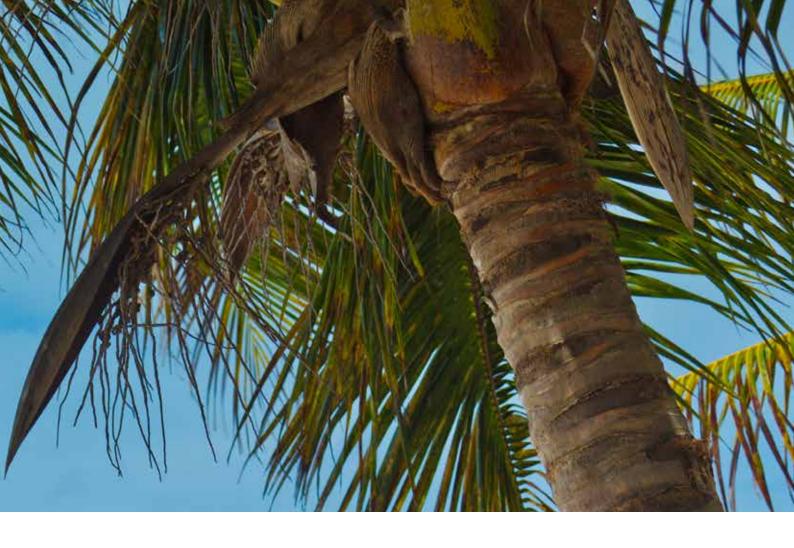


Set in the iconic Port Hercules in the principality of Monaco, the Monaco Yacht Show represents the pinnacle of luxury. Monaco provides the ultimate showcase for industry influencers from the most reputable superyacht builders, award winning yacht designers, luxury suppliers, influential brokerage houses to the most sought-after water toys, prestige cars, helicopter and private jet manufacturers.

The MYS is the premiere luxury event worldwide where visitors can discover the greatest aspects of superyachting against the glamorous backdrop of Monaco.

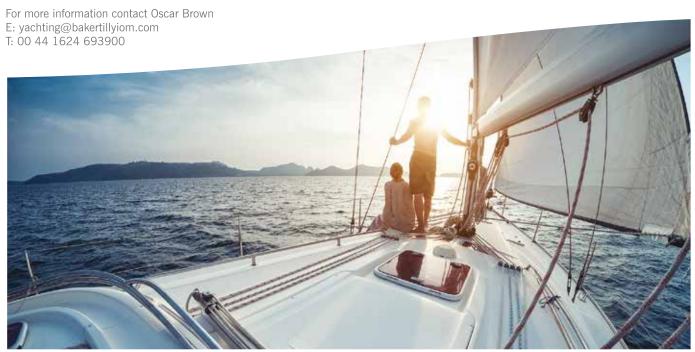






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When technology serves people

Margrethe Vestager is the European Commissioner for Competition

ext year is supposed to be a tough one for tech. 2019 is when – if you believe the film *Blade Runner* – renegade androids should be roaming the Earth. It's when – according to *The Island* - we should all have clones created just to provide us spare organs.

Technology and human values

Those dystopian fantasies make unforgettable films. They're a powerful reminder of how technology can go wrong. But there's one important thing which those filmmakers have forgotten.

They've forgotten that technology is our future, not our fate. They've forgotten that our societies are about much more than technology. They're built on a far deeper foundation of values – values like freedom, and fairness, and democracy.

And that's why those dystopias don't quite ring true. Because in fact, we don't just accept what technology gives us. We can shape it to fit our society's values. So technology serves people – not the other way round.

Meeting the challenge of digital technology

More than a century ago, when the first cars appeared, their supporters insisted they were much better than horses. They weren't simply faster - though they could reach terrifying speeds of 15 kilometres an hour. They were also much better for people's environment – they made city streets cleaner, safer, and quieter.

And it was only when cars became part of everyday life that some of the problems with them emerged. The accidents, the noise, the pollution. And as those problems became clear, rules started to develop.

And the same sort of change is happening today, in the way we look at digital technology. After the first thrill, when we discovered what these technologies could do, we've started to see that there's a dark side as well. A side that can challenge our most basic values – our privacy, our freedom to choose, even our democracy.

And we've started to see that it's time for people to take control. Of essential things, like what happens to their data.

Data and privacy

Until recently, there's been a sense that companies could treat our data as something just lying around for anyone to pick up, like prospectors in a gold rush collecting nuggets from the ground.



But those days are over. People understand that handing over data has a cost. Because each time we share our data, we give up something very valuable. Something that could be used against us.

That might just be annoying, the way it is when we're spammed with advertising. Or it could be much worse. Fraudsters might break in and use our data to steal from us. It might even be used to swing an election.

GDPR and the confidence to share data

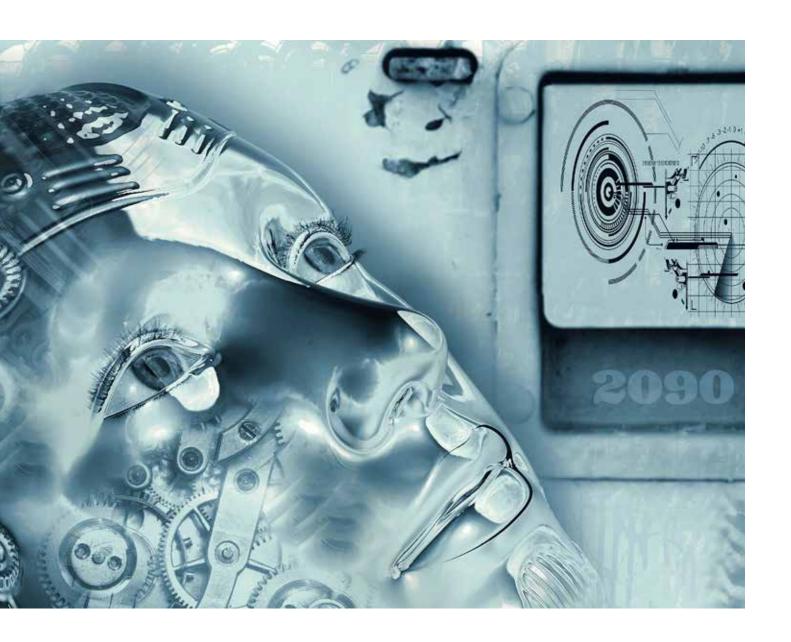
Of course, services that use our data could bring us huge benefits too. But people won't accept that, unless they know they're in control of their data.

Last year, a survey asked Europeans if they'd be willing to share medical data for research – anonymously. You might think medical research was clearly a good thing. But only one in five people said they'd share their data for medical research in the public sector – and only one in seven would share it with private companies.

"Supporting innovation doesn't mean accepting every new thing, just because it's new. The job of an innovator isn't just to come up with new ideas. They also need to convince us that their product is worth the price"

It's not that people aren't willing to share data. But they won't do it, if they don't trust that they're being told the whole truth about what it's being used for.

And I don't think that feeling is unique to Europe. That's why it seems to me that Europe's new rules on data protection, which started to apply last month, are only the first step in a change that will spread. Already, big businesses like Microsoft have said they'll apply those principles beyond Europe.



That new law - it's known as the GDPR, which you have to admit isn't the sort of punchy name you'd find in a science fiction script – is all about putting the control of data where it belongs – with the people whose data it is.

So they know who has access to their data, and what they're going to use it for. So they can be confident that the companies they deal with won't siphon off their data overseas, to 'data havens' where the rules don't apply.

Google

Without trust, we won't get the most from technology. And our antitrust case about Google Shopping has shown how hard it can be for consumers to know what's really going on.

People tend to believe that Google's search algorithm will show them the most relevant results at the top. So when users found that, though the algorithm demoted Google's rivals to – on average – page four, its own service was shown

prominently right at the top of the first page – well, it was natural to assume Google Shopping must be the best.

But it wasn't the algorithm that put Google at the top. Google Shopping appeared first because of a conscious decision by Google, not to apply the algorithm to that service. And yet consumers just saw Google Shopping, which seemed the most relevant, and not rivals.

Algorithms and democracy

Algorithms can help us find our way through the huge amount of information on the Internet. But the risk is that we only see what these algorithms – and the companies that use them – choose to show us. And the things that they hide might as well not exist.

That can be a serious threat to our democracy. Because democracy's not just about voting. It's about discussing ideas in public. So everyone has a chance to be heard.

Not long ago, a sound file was going round the internet – a short clip of a voice saying a name. Some people heard it as "Yanny" – others as "Laurel". That clip was a sensation. And I think the reason is simple. It challenged the most basic belief we need to live together in society. That we all hear and see the same things.

And when politics moves to our social media timelines, we can't be sure of that. I can't tell if you hear "Yanny" where I'm

hearing "Laurel". I can't debate the ideas that you're hearing. Because no one but you – and possibly the social media company – knows which ads and which news you can see.

Making technology work for us

In the past, there's been a temptation to expect the tech industry to solve its own problems. Perhaps that's because we fear innovation will suffer, if we regulate the digital world more.

But that makes no sense. Supporting innovation doesn't mean accepting every new thing, just because it's new. The job of an innovator isn't just to come up with new ideas. They also need to convince us that their product is worth the price.

And when we insist that technology doesn't harm our values, that doesn't mean we're rejecting innovation. It just means we need to be sure the price is not too high.

Conclusion

It means putting people, not technology, back in control. We're dealing with businesses that are big and powerful. But we, as a society, are powerful too. In Europe, for instance, we have a single market of more than 500 million people. And that's definitely big enough to make companies pay attention.

The same companies that, not long ago, transformed our world with new ideas, have become the establishment. They have the power to protect their position, by holding back the next generation of innovators. But our competition rules allow us to protect innovation – as we've recently done with Amazon, and as we keep doing when we check that mergers don't give companies so much data that no one else can compete.

And Europe also has the size to put strong rules in

place, like the new rules on data protection. Like the law we proposed last month, to help make sure online platforms and search engines treat their business customers fairly. Or the ethical guidelines for artificial intelligence, which we plan to present by the end of this year.

Because our fundamental values are at stake here – our freedom, our democracy, our equality. And it's up to us all to stand up and protect them. So they won't be lost – as they say in *Blade Runner* - like tears in rain.





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Thanks to the 2018 Digital Citizenship Conference, the participating students - true digital natives - will be empowered to make positive online choices

the students about the legal, emotional and physical implications of the identified digital issues, such as cyberbullying. The Conference therefore hosted experts from various sectors including law enforcement, education, social services, health care, and child protective services.

A Digital Leadership magazine was developed for the conference where members of the Student Committee and various panellists wrote about the various ways that social media, cyberbullying, and video games may affect a student's life. The magazine did not neglect some of the benefits of technology and discussed them at length, serving as a resource for more in-depth information on specific topics, experiences and issues that may not have been broached during the conference itself.

The Hon. Wayne Caines, JP, MP, the Minister of National Security, not only gave a gripping presentation about the negative effects of social media, but also provided insight into how students can leverage their knowledge to enhance their online experience. A positive perspective about social media let the students see that by adopting healthy internetuse practices, they could expand their opportunities for scholarships, schools, and careers.

Importantly, Deana Puccio co-founder of the RAP Project, was one of the contributors for the magazine as well as keynote speaker for the Conference, providing valuable insight into the global impact that social media misuse and digital issues have on society, especially on young people. A former Senior Assistant District Attorney from Brooklyn, New York, Deana developed The RAP Project, Raising Awareness & Prevention Project. The programme is designed to empower students with personal online safety skills.

After giving her keynote presentation, Deana helped lead several workshops such as Piggy in the Middle where the students were offered various scenarios depicting being stuck between two friends fighting, and were asked how they would respond. The final student workshop of the Conference focused on student feedback and asked students what they would like to see at the following year's conference, what advice should be given to their parents and guardians, and what parents and educators can do to establish themselves as trusted adults.

After the end of the school day, students were dismissed and the Conference switched gears: it was time to talk to the adults.





The first evening panel allowed educators and mentors to ask the panellists about what warning signs to look out for, how to help someone being bullied and the protocol to follow if their child or a young person they cared about was found to be cyberbullied. Afterwards, the Parent and Community panel discussed the various ways they could protect their children, what parental controls they can implement, and other similar topics. Using the student feedback garnered earlier allowed the moderators to guide the discussion to, for instance, reasons why children might not feel comfortable talking to their parents if they encounter anything online that made them uncomfortable.

While cyberbullying and other digital issues that affect young people are not going to disappear overnight, the Digital Leadership Conference helped to inform residents in Bermuda about the dangers lurking online and the different ways they can help ensure young people stay safe online.

Thanks to the 2018 Digital Citizenship Conference, the participating students - true digital natives - will be empowered to make positive online choices, seek help when necessary and understand that the decisions they make today can impact their lives and the lives of others for years to come. As change agents and leaders in their own circles, they will be mentored by local professionals in various areas of technology, law, mental health and community awareness.



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Counterfeiting becomes the fake news for global brands

Chrissie Jamieson is VP Marketing at MarkMonitor UK

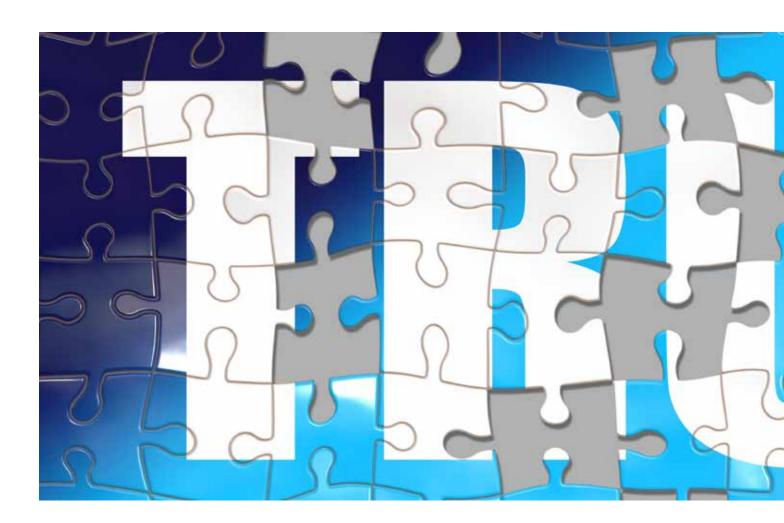
he digital transformation that has occurred over the past decade has changed the brand landscape beyond all recognition. In fact, many of today's biggest brands have come from a pre-digital time. Most of this digital transformation has been for the better, however it has also had the negative consequence of increasing the propensity for counterfeited goods.

New research commissioned by MarkMonitor and conducted by independent market-research firm Vitreous World showed that the scourge of counterfeiting is now hitting almost half (47 percent) of brands through lost revenue'. It's not just pennies either, with one-in-three brands reporting this loss in sales to be worth more than 10 percent.

Four-in-ten organisations (41%) have experienced an increase in the occurrence of counterfeiting and brand infringement. This has, more often than not, originated from a variety of components related to digital transformation on a global scale, including but not being limited to: advances in social media for six-in-ten (61%) companies; big data (52%); chat/messaging (52%); artificial intelligence (51%); the dark web (48%), and augmented reality (47%).

No light at the end of the tunnel

Everything from luxury watches to medicines are now counterfeited. According to the Organisation for Economic Co-operation and Development (OECD), the global trade in counterfeits continues to expand rapidly and now accounts



for 2.5 percent of world trade, or £383 billion² (\$461 billion). In the UK alone, research by the Centre for Economic and Business Research showed that counterfeit goods cost the economy £17.3 billion (\$20.8 billion) and resulted in 72,000 jobs being lost as a result³.

There appears to be no light at the end of the tunnel for brands. In fact, our research found that 58% of brands feel that keeping themselves safe from counterfeiting will become increasingly difficult over the next five years.

"The good news is that those brands

that have had the foresight to implement

online brand protection will gain valuable

awareness of the landscape in which they

Skewed reviews

Counterfeiting is a serious problem. Over the past year there has been plenty of talk about the danger of fake news on consumer perceptions (not to mention election results). The same shift in consumer perceptions can also, of course, be caused by counterfeiting.

There is an increasingly high number of fake goods entering the supply chain — in December 2017, for example, millions of pounds worth of fake clothes, toys and gadgets were seized by the UK Border Force — which has led to a massive reduction in consumer confidence levels. This in turn can have catastrophic consequences on a genuine brand's bottom line.

Today, reputation is everything. Whether it's a restaurant, a movie or a car, nowadays they all live or die by the ratings they receive online. The internet has become a word of mouth referral system for a whole generation of consumers. Because of this, negativity around a brand – partially stoked

by counterfeit goods skewing reviews – can spread like wild fire.

Adapting approaches

operate"

Online brand protection has never been more important than it is today. It will continue to grow in complexity and, as a result, it's vital that organisations adapt their approach accordingly today to reap the rewards tomorrow.

The issue of brand protection has always been a challenge for businesses. However, the scope and complexity of the problem has grown significantly over the last few years due to the global nature of business, an increased consumer appetite for shopping online and an expanding marketplace, driven by the proliferation of social media channels.

This has provided additional points of infiltration for criminals and those with malicious intent. Today, brand protection is





not confined to just the business. Rather, an overriding objective is for the organisation to protect its customers, safeguarding their trust and loyalty.

Successful company brand protection requires a multi-disciplinary approach that starts from within. It is therefore imperative that it has buy-in from the very top of the organisation. However, our research reveals that only 19 percent of respondents currently use a unified approach when implementing and monitoring a brand protection initiative. Looking at those respondents with no plan in place, the number one barrier is cost (65%), followed by a lack of time and resources (64%).

Remaining complacent

As we have seen, nearly half of brands report having lost sales due to fakes flooding the market. However, much of the damage is difficult to quantify. For example, other types of infringement that brands typically suffer from include: lost traffic due to cybersquatted sites (46%); an increased cost of paid search adverts (49%); damage to a brand's reputation (50%), and counterfeit-sponsored adverts on social media (45%).

Despite counterfeiting rising in frequency, brands are far too often remaining complacent regarding standing their ground against infringement. Only just over half (56%) of respondents have taken legal action, with 23 percent saying the action resulted in a takedown of infringing content or products, and a quarter (24%) saying it resulted in financial compensation.

Catch-22

Online brand protection remains a critical feature for all businesses. As the digital channels expand with new ways to advertise and market goods and services, the threat of infringement and abuse rises too. It's a catch-22. The online space has presented brands with tremendous opportunities, but these same opportunities are also being exploited by cybercriminals and fraudsters. The result is damaged customer trust, lost revenue and a tarnished reputation.

The good news is that those brands that have had the foresight to implement online brand protection will gain valuable awareness

of the landscape in which they operate, the channels that need to be monitored and the importance of such a plan.

However, they will still face challenges in the monitoring and management of these programmes – challenges that need to be overcome to face future threats. These include the ability to quantify the value lost to infringements and the ability to prioritise them, a lack of knowledgeable staff and a lack of resources.

Protecting revenues and reputations

While it is easy to understand the temptation to solve the issue of counterfeiting internally, the difficulty of working with scant in-house resources can potentially do more harm than good, as it can quickly become a compromised programme. Working with third-party experts is often a more effective way forward.

Reassuringly, the customer can remain at the heart of these programmes too. Either way, cost remains as a prohibitive factor for those brands that don't currently have an online brand protection programme in place. But with the increase in counterfeiting and the associated loss of revenue it is a case of speculating to accumulate, and the exercise generally has swift return on investment.

In the globally-connected times that we live in, all brands from world-leading multinationals to enthusiastic startups must embrace advanced technology to protect revenues and reputations alike. They also need to turn to trusted third-party organisations to help police their brand online.

In the digital world, brands face new risks due to the web's anonymity, the global nature of a brand's reach and shifting consumption patterns for digital content, goods and services. Brand protection in 2018 involves a lot more than taking care of the brand itself. Critically, it's about maintaining customer trust and protecting consumers from the dangers posed by counterfeiters and online criminals.

- 1. https://www.markmonitor.com/b2b-barometer-2018
- $2. \ http://www.theglobalipcenter.com/wp-content/themes/gipc/map-index/assets/pdf/2016/GlobalCounterfeiting_Report.pdf$
- 3. http://www.independent.co.uk/money/counterfeit-goodstempting-danger-a7473751.html



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