WORLD COMMERCE REVIEW

ISSN 1751-0023
VOLUME 11 ISSUE 3 ■ AUTUMN 2017

Korbinian Rüger and Benjamin Zeeb discuss why the European Union is failing and what we can still do to save it

William Nordhaus examines the Trump doctrine on international trade, which risks 100 years of cooperation

Navigating the legal risk. Hanno Tolhurst provides an overview of the ASW advantage

THE GLOBAL TRADE PLATFORM

What state the Union?

Jean-Claude Juncker's State of the Union Address contained no surprises. He sees a window of opportunity that he is determined to use; *"Now is the time to build a more united, stronger and more democratic Europe for 2025."* There are five priorities, the first being free trade, with the proviso that Europe must defend its strategic interests. He talks about signing new trade agreements, yet oddly manages to say nothing about whether that includes a Treaty with the UK. Second is an industrial strategy that smacks of the industrial champions model that has failed previously. The third priority is tackling climate change, that has been shown recently to not be the urgent priority that was imagined. Cybersecurity is fourth, with the promise to protect Europeans in the digital age, and the fifth priority is migration and the reduction in the numbers of refugees. Juncker sets out a sixth scenario for Europe, one that centres on freedom, equality and the rule of law.

Guy Verhofstadt, the chief Brexit representative for the European parliament, in the State of the Union debate said *"This European democracy is necessary, for example, to withstand alt-right governments such as we see today – also inside, in Poland and in Hungary – who think that Trump with his white supremacy is the example, or that Putin and Orbán, who jail opponents, are the example. That will never be the example in whatever member state in the European Union. And for that reason we have to create this European democracy with a transnational responsibility because, as Emmanuel Macron said, standing near the Acropolis, we need to be the counterweight to all these developments and yes, to autocratic leaders worldwide – a beacon of openness, a beacon of freedom and a beacon of hope in the 21st century."*

Much like Juncker, Verhofstadt wants a United States of Europe, with a deeper Union encompassing a European defence union, a European FBI, and European business champions. In other words, a Fortress Europe.

It is ten years since the financial crisis started. The advanced capitalist world has experienced its longest period of economic stagnation since the decade that began with the 1929 Wall Street crash and ended with the outbreak of World War II ten years later. The West, and Europe in particular, has gone through a lost decade.

The market-fundamentalist revolution and huge growth in the global economy lasted for 30 years, and was brought crashing down by the financial crisis. But, just as Keynesianism was discredited by the inflationary crises of the 1970s, market fundamentalism succumbed to its own internal contradictions in the deflationary crisis of 2007.

What system will prevail, or whether a new paradigm will prevail is open to question. In Europe the 'progressive' economics of full employment and redistribution are in competition with the 'conservative' (alt-right) economics of free trade and labour-market liberalization.

France's new president, Emmanuel Macron, who based his election campaign on a synthesis of labour reforms and an easing of fiscal and monetary conditions, finds his ideas are gaining support in Germany and among European Union policymakers. If the attempt to combine conservative structural policies with progressive macroeconomics succeeds in replacing the market fundamentalism that failed in 2007, the lost decade of economic stagnation could soon be over – at least for Europe

Juncker and Verhofstadt have thrown down an integrationist gauntlet. We will soon see if it is picked up. Or we will see if governments are willing to make the good ship Europe seaworthy so that it can *"throw off the bowlines. Sail away from the harbour. And catch the trade winds in our sails."* ■

PHOENIX MULTIMEDIA
NR35 1PU
United Kingdom

www.worldcommercereview.com

Tel: +44 (0)1986 892028

Email: info@worldcommercereview.com

PUBLISHERS
Tom Forster
Roy Williams

MANAGING EDITOR
Tom Forster

EDITORIAL
Tom Page

PRODUCTION
Michael Day

CIRCULATION
Andrew Kilby

SALES DIRECTOR
David Thompson

SALES TEAM
Kate Warwick
Phil Shaw

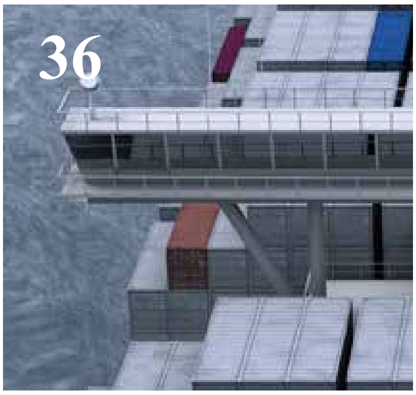
DESIGN AND PRODUCTION
West Riding Media Solutions

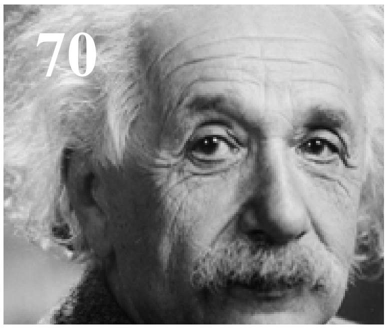
ISSN 1751-0023

Contents

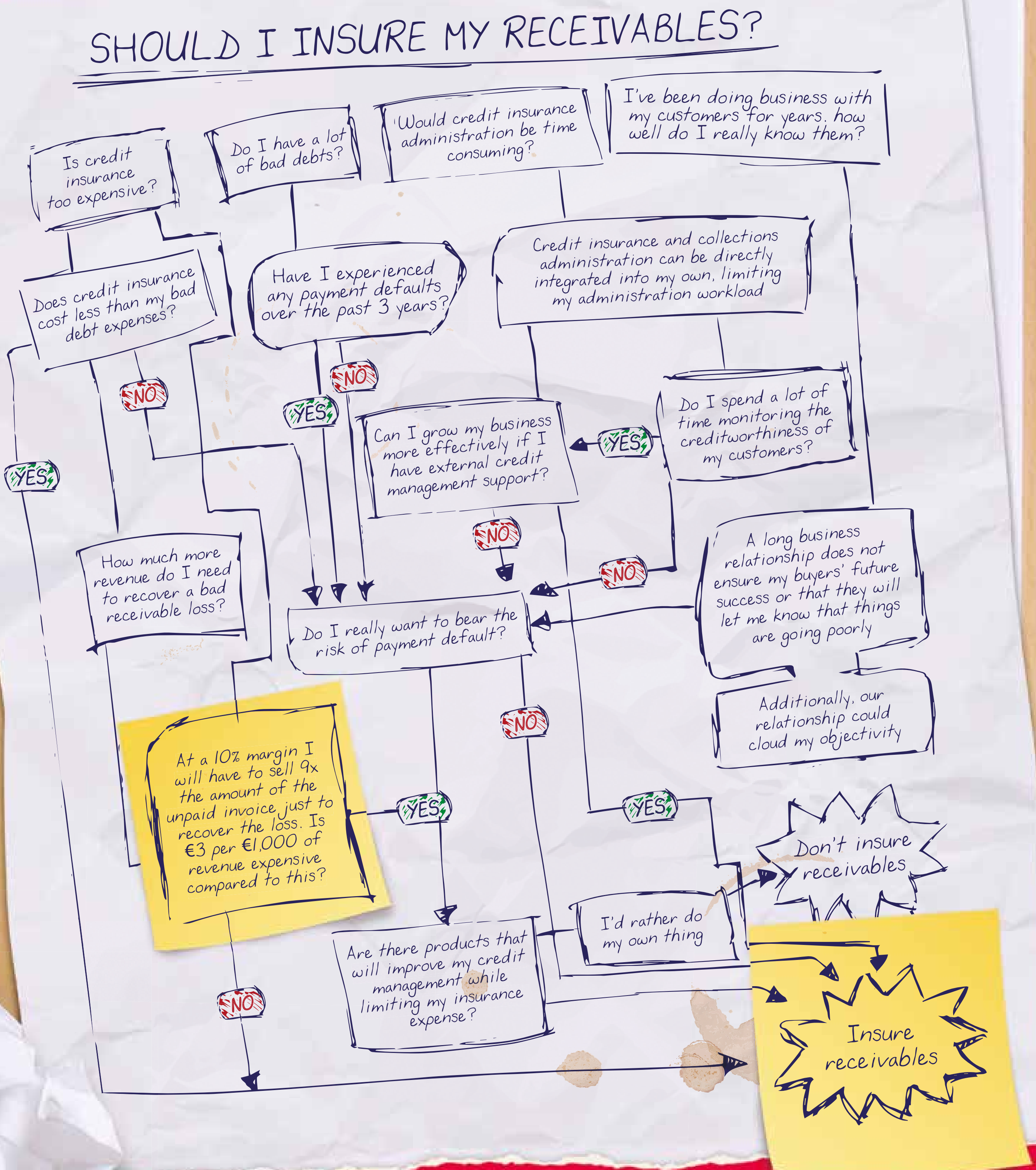

Less Red Tape...
More Red Carpet

Contents





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



Four reasons why the EU is failing

Korbinian Rüger is Treasurer and Head of Campaigns, and Benjamin Zeeb is the CEO at the Project for Democratic Union

The recent victory of Emmanuel Macron as president of France has instilled in many on the continent a fresh hope that a new dawn for the EU might be just over the horizon. Could the coinciding shocks of Brexit and Mr Trump's election in 2016 become a galvanizing moment in Europe's history? Is this the turning point when the peak of crisis is finally overcome, and we Europeans can at long last start to look confidently towards a brighter future?

It certainly seems like the EU has gained some new fans recently, with people from Berlin to Rome taking to the streets under the banner of the 'Pulse of Europe' movement, waving the blue and yellow flag, loudly expressing their support for the historic project of European Integration. Unfortunately, however, there is little reason for jubilation as none of the continent's most pressing problems have come any closer to a solution. Nor are they likely to in time.

Still Europe treads dangerously close to the brink of ruin, with a long list of very real risks all individually capable of wiping away half a century's worth of progress within the blink of an eye. Meanwhile the actions required to put Europe back on track far exceed even the boldest proposals for reform coming out of Brussels and national capitals.

Under these circumstances it is no longer the duty of Europhiles to try to explain to our storm-tossed citizenry why the EU is good for them, why they should support it, and what it does for them. Instead it is our responsibility to convey why, in its current state, the EU can do remarkably little for them, and that, in any case, it probably won't be around for much longer if we don't radically change course to avert disaster.

Here are four reasons why the EU is going to fail and what - if anything - we can still do to save it.

A flawed structure

Historically, when it comes to the organization of political systems, there have essentially been two winning strategies. Either your state is very large and simply by virtue of size more powerful than almost all competitors. Think the Roman Empire, Ancient China, the US today. Or you are very small and agile, creative and flexible, able to bend rather than break in the face of hostile acts by larger adversaries: Singapore, Switzerland, or the City States of Renaissance Upper Italy.

Both, being large and being small, come with upsides and downsides in statecraft, but, with the exception of the Holy Roman Empire, which eventually collapsed under its own weight, the EU stands alone in having accomplished a dubious feat. Despite its sheer size it manages to harness almost none of the benefits that have historically come with being large while at the same time suffering many of the downsides that should be reserved for much smaller entities.

With being large, in Europe's case this includes commanding the world's biggest unified market, there should come economies of scale, massive negotiating power, the ability to project power and define rule-sets far beyond once own geographic boundaries, as well as an ability to protect one's own citizens and immediate neighbours from war. Essentially, you don't get bullied as easily when you're big.

But very few of the benefits of being big apply to the EU today. At the same time it has managed to retain most of the downsides of size: a remote centre in charge of setting rules that is considered out of touch with the population, a sprawling bureaucracy with lacking legitimacy that has become the target of populists and separatists alike, and, maybe most consequentially, a high vulnerability to unforeseeable black swan events that threaten the intricately woven web of interactions, be they financial, political, or cultural, that hold the whole thing together.

All of this wouldn't matter as much, if Europe's member states were able to at least retain some of the benefits of being small. That would mean greater flexibility, a more immediate relationship and exchange between citizens and the ruling elite, greater flexibility, proper democratic representation and, crucially, fiscal independence. Being small means that you likely profit from your neighbours financial failings while it is less likely that you will be aversely affected by your competitor's profligacy or over-production. Member states of the Confederate System of the EU, of course, share traits of both small and big entities. However, they have uniquely failed to leverage the benefits of both.

An ill-designed currency union

In the perception of many people, when the financial crisis of 2008 hit Europe, was the moment it all started to go downhill for the project of European integration. Ever since then many see the EU as an institution in crisis, and to some extent rightly so. It is not that the EU's structural flaws were created then, but Europe's financial and wider economic crisis made them blatantly obvious. Unlike other economies worldwide also hit by recession, the eurozone's countries were and still are trapped in a currency union that is incapable of reacting to external shocks because it lacks a common fiscal policy. This unprecedented design flaw in the creation of the Euro has more than once caused whole countries to nearly go under. That it hasn't been corrected to this day is simply unbelievable.

One thing that continues to stand in the way is Germany's shrieking horror in the face of a possible 'transfer union'. This has become most obvious again in the negotiations about the latest tranche of financial aid for Greece in June of this year. Greece is a country crippled by crisis for almost ten years now. Ever since the first of three bailout packages was signed by the IMF and eurozone governments in 2010 the Greek economy is being just barely kept alive.

The IMF and virtually all mainstream economists have by now acknowledged that the country will never get back on its feet without substantial debt relief. Consequently the IMF has made any future involvement in financial aid for Greece contingent on such debt relief. The Eurogroup under the leadership of German finance minister Wolfgang Schäuble in turn has so far blocked any attempts for substantive relief, while at the same time insisting that the IMF stay involved. June's agreement to release the latest funds, once again keeping Greece from immediate sovereign default, reflects these opposing views by making debt relief a future option to be reviewed next year with the IMF staying on board for now.

The German government cannot get itself to acknowledge that debt relief for Greece is one of the necessary transfers within the eurozone that have to be made to keep it from falling apart. Funds have to flow from richer parts of the Union to poorer parts to secure a minimum of fiscal harmonization. One of the most promising proposals to that effect is a European unemployment insurance scheme. Without such measures, part of which would also be a European finance ministry overseeing its own substantial budget, the eurozone, and with it the EU, will not survive.

An inadequate security setup

Another area where the EU is failing is its security policy. This is one of the areas where close cooperation between member states is absolutely indispensable. Bearing few exceptions, the member states have in effect no internal borders and almost identical foreign policy and security interests. Border patrol, intelligence and military are thus three things that most naturally should be taken care of on a European level. Yet, very little progress has been made in recent years.

This has become blatantly obvious in the most tragic of ways when Europe proved unable to deal with the ongoing 'refugee crisis'. When refugees from the Middle East and Africa fled war and hunger in numbers unprecedented since World War 2, those countries with an external border have largely been left to their own devices and many of them are either unable (Greece, Italy) or unwilling (Hungary) to control it in a way that is in line with Europe's security concerns as well as with a humane and sensible immigration policy.

"... successful unions have resulted not from gradualist processes or legalistic procedures... Progress towards the formation of states with new political structures is usually caused by events, rather than processes. Europe needs such an event now"

This is a task that needs to be taken care of on the European level. We need a European scheme that is in charge with securing the Union's external border, of course in close cooperation with regional authorities, handling all immigration, including the distribution of asylum seekers across the Union. This scheme needs to be financed entirely by European funds.

The same goes for intelligence. The security threats faced by EU member states are by and large the same. The top priority at the moment no doubt lies in preventing further attacks like the ones in Barcelona, Berlin, Brussels and Paris. Almost every one of those attackers has travelled or even lived in different European countries. All of them have benefitted from insufficient cooperation between national intelligence services and police forces. It is far from crazy to think that one or more of these attacks could have been prevented had this not been the case. It seems distasteful to mention how economically wasteful it is to run 28 intelligence services that do much of the same work. But, of course, this is also true.

This last point is also very relevant in terms of European military spending. There has been much discussion about European NATO members that spend far less on their defence budget than the agreed upon 2% of GDP. The far more effective way to increase the military capacity of European countries to a level far beyond the 2% goal without even spending that amount, would be to form a European army under single command. Harmonization effects would increase Europe's defence capacity far more than simply pouring more money in to the same defective system would.

Of course, this would likely not satisfy Donald Trump, who thinks that European countries 'owe money' to the US for enjoying years of American defence without paying much for it. However, satisfying the US president should not be the goal in any case. Rather Europe should see the US's retreat as a welcome opportunity to grow up and develop a defence structure that is able to secure the safety of European citizens without having to rely on the goodwill of whoever happens to occupy the White House.

A crisis of democratic representation

With the formation of informal Institutions like the Troika, the Eurogroup, and later the ubiquitous 'Institutions', the traditional and constitutional right to determine a state's budget, which is one of the most essential rights of any

democratically elected parliament, has disappeared in practice.

In many cases including Spain, Ireland, Italy, Portugal, Cyprus and Greece, parliaments can no longer make independent decisions on the state's financial resources and therefore are no longer able to properly represent the will of their respective national constituency. Even after the end the bailouts, the dependence continues. Essentially it doesn't matter who you vote for if you are a Greek or a Spaniard, economic policy (including on matters of taxation and government spending in your country) will be made in Brussels, Paris, and Berlin.

On the global stage, Europeans are supposed to gain greater weight through membership in the EU. However, does the EU even adhere to the will of a majority of Europeans in questions of trade, environment, and foreign policy? The answer is, it probably doesn't. How are we, under the current system, even supposed to discern what that will is? The answer is, we can't. To solve this crisis of representation we need to push for a massive overhaul of Europe's democratic institutions.

Is there hope?

One (wo)man, one vote! This simple principle should guide all our ambitions for reform in Europe. Unfortunately, we can't leave this process to the national elites representing their respective member states and their diverging interests. We have to take matters into our own hands.

Historically, successful unions have resulted not from gradualist processes or legalistic procedures. They have come about through defining events in times of extreme crisis. Progress towards the formation of states with new political structures is usually caused by events, rather than processes. Europe needs such an event now.

Much like the Philadelphia convention, which gave the United States a constitution didn't reinvent the wheel as to how to form a federation, Europe does not have to do so either. After all, with more than two hundred years of federal practice, it is possible to analyse the costs and benefits of the United States' constitutional model and to create an adapted European one based on the outcomes. ■

Japan's choice

Stability, security and growth vs. stagnation, insecurity and relative decline

Stephen R Nagy is a Senior Associate Professor in the Department of Politics and International Studies at the International Christian University, Tokyo

"Given his long record of broken promises and unrealized goals, collective amnesia is his best bet for regaining voters' trust".[1]

You may have been forgiven for thinking the writer of the comment above was speaking of President Trump. In fact, the quote comes from a recent commentary on PM Abe's second tenure as PM following the Governor Koike's Tomin First victory in the Tokyo Metropolitan election[2].

PM Abe's return as Prime Minister in December 2012 brought with it economic growth (Figure 1), growing security ties in and outside the region[3], expanded consumer confidence and political stability. This in part has been related to a plethora of policies that falls under rubric of Abenomics[4] which includes but is not exclusive to quantitative easing, deregulation, improved corporate governance[5] standards and a host of other policies. The results have been increased capital investment (Figure 2) and increased corporate profits (Figure 3).

Figures from the Cabinet Office since 2010 are evidence that the policy approach, although not without problems and concerns has delivered economic growth. At the same time, PM Abe's push for constitutional reform[6], his right leaning conservative track record[7], and a series of scandals[8] and gaffs[9] involving members of his Cabinet and even himself has shaken his support amongst his conservative base. This drop resulted in a Cabinet reshuffle in early August allowing him to regain some of his support[10].

While PM Abe's second stint as PM has not been without problems, missteps and questionable relationships, characterizing it as a *"long list of broken promises and unrealized goals"* fails to recognize the achievements of arguably the most consequential PM in Japanese post WW 2 history. At the same time, the comments fail to highlight where the current administration could and should have done better.

It is in this environment that voters are now faced with a dilemma, do they continue to support a leader that has brought political stability, increased security through a tightening of the US-Japan Alliance and a series of strategic partnerships with intra and extra regional powers such as Australia[11], India[12], and Vietnam[13], and economic growth or do they choose economic stagnation, increased insecurity and relative decline owing to weak leadership and incoherent policy?

While this is not a binary choice, investors should be concerned as well as a change in government in Japan could lead to a return to the revolving door of Prime Ministers and policy inconsistency that plagued Japan for much of the past 20 years.

Questionable right-wing associations and controversial policies

PM Abe's refusal to distance himself from right-wing organizations such as the Nippon Kaigi[14] has tarred PM Abe with a far-right wing reputation, despite his track record as pragmatic PM that governs more from the centre than we would have expected by examining his pre-PM political career[15].

These groups are problematic for PM Abe as they argue that in order to reinvigorate Japan, the Japanese Constitution needs to be revised to include the following principles:

1) To nurture patriotism and position the Imperial Family at the centre of Japan's identity;

2) To create a new Constitution based on Japan's traditional characteristics;

3) To safeguard the sovereignty and honour of Japan;

4) To include the teaching of tradition in education to inculcate pride and love of citizens for their nation;

5) To cultivate a willingness to protect the nation and to provide it with enough defensive power to secure its safety and contribute to world peace; and lastly

6) To foster coexistence and contribute to promoting the nation's status in the global community and to building friendship[16].

While these proposals are supported by some political elites with roots in Japan's imperial past, they do not represent mainstream Japanese citizens with no ties to Japan's imperial past[17].

At the same time, PM Abe has pushed through rational yet, controversial collective security legislation[18] that the public has misgivings about do to deeply held post WW 2 pacifist norms and a lack of security literacy amongst quotidian Japanese[19].

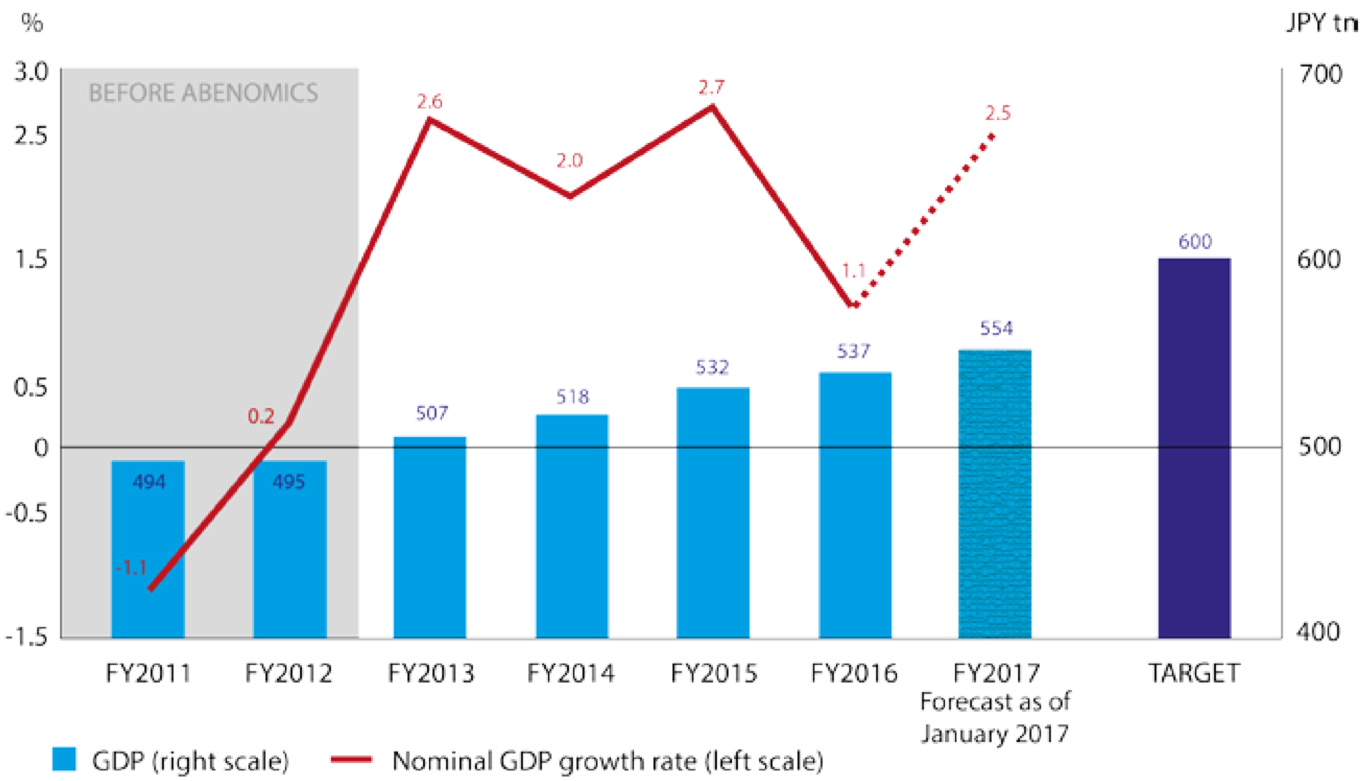
Critics of PM Abe have also voice concern over the new anti-conspiracy bill raising important questions about the state's commitment to democracy[20]. While timely and needed to deal with the growing threat of terrorism and growing threats from abroad, the legislation has been perceived by voters as not having been accurately vetted and explained to citizens.

"The Japanese would need to ask themselves, why throw out a leader that has been successful and stable domestically, regionally and on the world stage as well?"

To gain back some of his credibility amongst voters PM Abe has pushed out some of the more extreme elements of his Cabinet during the recent Cabinet shuffle[21], suggesting a more centrist approach to governance and the avoidance of ideologically-based politics which could upset trade relations with both China and South Korea, important markets for Japan's export dependent economy.

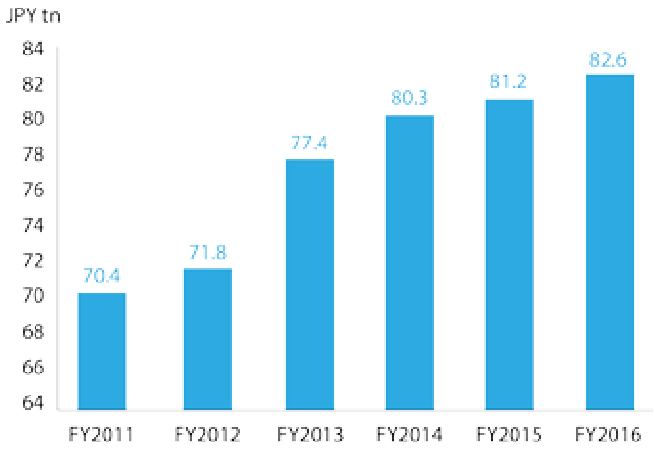
The jury is still out though whether these changes will be enough to allay the concerns of voters or prevent a political insurgence from within the LDP to push PM Abe out. What

Figure 1. Nominal GDP and growth rate



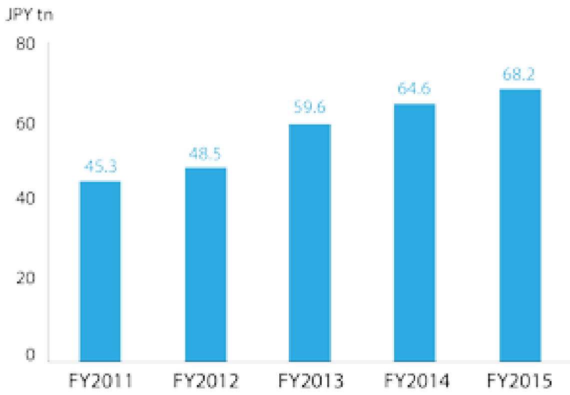
Source: Cabinet Office "National Accounts"; "Fiscal 2017 Economic Outlook and Basic Stance for Economic and Fiscal Management"

Figure 2. Capital investment



Source: Cabinet Office, "National Accounts;" private non-residential investment

Figure 3. Corporate profits



Source: Ministry of Finance "Financial Statements Statistics of Corporations by Industry," all industries, all (firm) sizes, seasonally adjusted figures

Japan PMs revolving door legacy

Shinzō Abe returned as prime minister following five in five years

Yasuo Fukuda
September 2007 -
September 2008
Abruptly **resigned** as he faced deadlocked parliament and dwindling popularity

Taro Aso
September 2008 -
September 2009
Stepped down after massive election **defeat**

Yukio Hatoyama
September 2009 -
June 2010
Resigned after row over the relocation of a US base

is clear though that questionable right-wing associations and controversial policies are leading voters to explore other political alternatives that may not lead to further political, economic and foreign policy insecurity.

Lukewarm commitment to reform

Critics of PM Abe have argued that his Abenomics has only half succeeded mostly because of lukewarm commitment to essential structural reform[22]. Whereas large exporters benefit from the yen's devaluation, domestically oriented small and mid-sized businesses as well as families are said not to receive the benefits of Abenomics, only the higher prices of imports.

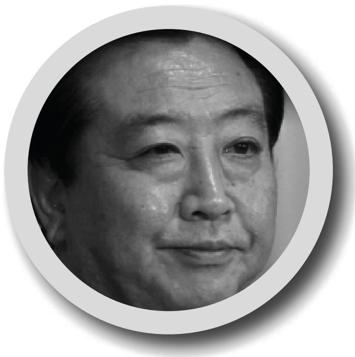
Others have argued that Abenomics has been hobbled by *"Japan's consensus-based society, not favouring top down decision making"* stressing that *"it takes time to change long-standing policies, in particular those relating to labour markets"*.[23]

The agriculture sector is a particularly illustrative example of a tepid commitment to structure reform. Instead of a full commitment to agreements signed in the initial TPP, we see the 'agricultural tribe' (nōrin zoku) of the ruling Liberal Democratic Party (LDP) poor cold water on real agricultural reforms through advocating a series of proposals, subsidies and assistance programs to blunt the impact that a fully implemented TPP would have on the agricultural sector[24].

The International Monetary Fund's (IMF) Country Report on Japan which was released on July 31st, 2017 which outlined a series of nuanced of assessments on the success or failure of Abenomics. In the report, the IMF stresses that *"structural impediments underlie Japan's struggle with stagnant growth and deflation"* and that *"Abenomics has improved economic conditions and engendered structural reform, but key policy targets remain out of reach under current policies"*[25].

The report stressed that low birth rates and its ageing society are structural pressures that are preventing growth from gathering momentum and productivity increasing. Through committed labour market reform, increasing the number

Naoto Kan
June 2010 -
August 2011
Resigned after turbulent term and post-tsunami criticisms



Yoshihiko Noda
September 2011 -
December 2012
Resigned after severe election defeat

Shinzō Abe
Assumed office December 2012, and is the third longest serving Prime Minister of post-war Japan

of foreign workers and the adoption of horizontal labour mobility policies, the IMF stresses that Abenomics would garner more momentum.

In short, greater commitment by political leaders in pushing through structural reforms is needed.

Security and economic achievements

PM Abe's star has shined most brightly in the areas of security and economic policy, a welcome relief to voters and investors. Sustained strategic commitment to expanding the number and quality of security partnerships in Southeast Asia, South Asia as well as with extra-regional powers such as Australia, the UK, France and the UK are noteworthy achievements in that they strengthen Japan's security while abiding by Article 9 of Japan's Pacifist constitutional.

Focusing on capacity building, multi-layered and multidimensional security cooperation with ASEAN and other countries, Japan under PM Abe has taken an important role in alleviating some of its and her neighbours security concerns[26]. This has been welcomed by Southeast Asian and South Asian countries but also by voters who have growing concerns about North Korea's belligerence and Chinese behaviour in the East China Sea and South China Sea. This support has deepened in light of the missile and nuclear tests by Pyongyang in the summer of 2017 and the island building activities in the South China Sea.

The advent of the strategic partnerships with India and Vietnam are significant as they expand the geographic cooperation of Japan through the Indo-Pacific bringing in new security partners. Above and beyond their security partnerships, the Indo-Pacific framework increases the scope of economic cooperation by connecting the capital rich, developed Japanese market to India and Vietnam, both developing countries with young populations to act as labourers for Japanese manufactures but also consumers of Japanese products.

While security achievements have infused a sense of stable stewardship of Japan's foreign policy, in the economic realm Yen devaluation through quantitative easing has increased the competitiveness of Japanese exports in and outside the region. These policies alongside the relaxation of visa requirements for Southeast Asian countries and China have dramatically boosted the number of tourists from the region into Japan.

Tourism related industries such as hotels, restaurants, tour copies, ski and hot spring resorts, temples, and some rural areas have been transformed from a domestically oriented tourist business model to one that actively seeks out and accommodates foreign tourists.

Government policies to promote corporate governance and economic leadership in terms of signing the Japan-EU Economic Partnership (EPA) in July 2017 and PM Abe's commitment to realizing the TPP 11 are important markers that the current leadership in Tokyo is committed to bolstering trade, deregulation and creating new trade rules that project intellectual property rights.

Japan's choice

Pragmatism, not ideology has driven Japan's security and economic achievements since 2012. More needs to be done to ensure that the rural areas such as those in Northeast Japan and the Fukushima area benefit from policies associated with Abenomics and PM Abe that are positively impacting Japan's urban areas such as Tokyo, Osaka and Kyoto. To date, reforms initiated under PM Abe haven't much effect on the rural areas that are plagued a rapidly greying population and an exodus of the youth.

As to the political fate of PM Abe? What is important is a continuation and deepening commitment to current policies rather than PM Abe remaining Prime Minister. That being said, despite the stability that ordinary Japanese have experienced during PM Abe's tenure, the recent scandals have had less of an effect on voters than the idea of a third term. For the average Tanaka, right or wrong, this smells like dictatorship. Businesses and investors on the other hand, may give more leeway on the possibility of a third term for PM Abe if it means political stability and deeper and broader economic reform.

With that, there is one more important consideration, the penchant of ordinary Japanese to prefer stability and to avoid risk. Voting out PM Abe can be understood as a high-risk choice. The Japanese would need to ask themselves, why throw out a leader that has been successful and stable domestically, regionally and on the world stage as well?

This is Japan's choice. The answer to this question will have ramifications for Japanese citizens, investors and the region as a dynamic, economically invigorated, democratic Japan could provide an essential leadership role in the region.

It would be a beacon for developing countries by demonstrating that in East Asia and other regions, that open and democratic societies can prosper and provide sustainable economic growth without sacrificing their freedom, openness and independence. ■

ABOUT THE AUTHOR

Dr Stephen R Nagy is a Senior Associate Professor in the Department of Politics and International Studies at the International Christian University. Previously he was an Assistant Professor at the Department of Japanese Studies at the Chinese University of Hong Kong from December 2009 to January 2014. He obtained his PhD from Waseda University, Japan in International Relations in December 2008.

His recent funded research projects are "Sino-Japanese Relations in the Wake of the 2012 Territorial Disputes: Investigating changes in Japanese Business' trade and investment strategy in China". Currently he is conducting a research project on the entitled "Perceptions and drivers of Chinese view on Japanese and US Foreign Policy in the Region".

He has published widely in peer-reviewed international journals such as China Perspectives, East Asia, the Journal of Asian Politics and History and the International Studies Review on topics related to trade, nationalism and China-Japan relations. He has also published in think tank and commercial outlets such as the China Economic Quarterly on trade and political risk and provides consulting services related to political risk in North and Southeast Asia.

In addition to writing in media and policy forms outlets in Japanese and English such as Diamond OnLine, South China Morning Post, the Japan Times, East Asian Forum and Policy Forum, Asia & the Pacific Policy Society (APPS) on issues facing the region, Dr Stephen R Nagy is a frequent analyst on CNBC Asia, Channel News Asia, the Australia Broadcasting Cooperation, Radio and TV (ABC), Al Jazeera, China Radio International and others as political/economic and security commentator on Northeast Asian politics and international relations.

1. "A reset for Abe's constitutional revision agenda?" in The Japan Times. July 22nd, 2017
https://www.japantimes.co.jp/opinion/2017/07/22/commentary/reset-abes-constitutional-revision-agenda/#.WaprpchJYow
2. "Koike crushes ruling LDP in battle for Tokyo", in The Financial Times, July 3rd, 2017.
https://www.ft.com/content/68c3810e-5f29-11e7-91a7-502f7ee26895
3. Nagao, Satoru. "The Japan-India-Australia "Alliance" as Key Agreement in the Indo-Pacific," ISPSW Publication September 2015, Issue No. 375, (Berlin, The Institute for Strategic, Political, Security and Economic Consultancy (ISPSW))
http://www.isn.ethz.ch/Digital-Library/Publications/Detail/?en&id=193713 (accessed September 23 2015)
4. The Government of Japan. "Abenomics," (http://www.japan.go.jp/abenomics/index.html)
5. "Japan's corporate governance gets some long-overdue scrutiny", in Nikkei Asia Review. July 6th, 2017.
https://asia.nikkei.com/magazine/20170706/On-the-Cover/Japan-s-corporate-governance-gets-some-long-overdue-scrutiny
6. Nagy, SR 2017. "The problem of pacifism: The road to revising Japan's Constitution", in Asia & Pacific Policy Society (APPS) Policy Forum. May 11th, 2017. https://www.policyforum.net/the-problem-of-pacifism/
7. Nagy, SR 2014. "Nationalism, Domestic Politics and the Japan Economic Rejuvenation", in East Asia. Volume 31. Issue 1. Pp. 5-21.
8. Mulgan, Aurelia George. 2017. "Scandals starting to stick to the Abe administration", in the East Asian Forum. June 21st, 2017.
http://www.eastasiaforum.org/2017/06/21/scandals-are-starting-to-stick-to-the-abe-administration/
9. "Gaffes by Abe Cabinet ministers sign of carelessness due to stable approval rates", in The Mainichi. April 18th, 2017.
https://mainichi.jp/english/articles/20170418/p2a/00m/0na/016000c
10. Harris, Tobias. 2017. "After cabinet reshuffle, public remains dissatisfied with Prime Minister Abe", in Japan's Political Pulse. August 8th, 2017.
https://spfusa.org/category/japan-political-pulse/
11. The Ministry of Foreign Affairs of Japan (MOFA). "Japan-Australia Joint Foreign and Defence Ministerial Consultations Joint Statement 2008", December 18th, 2008.
http://www.mofa.go.jp/region/asia-paci/australia/2plus2joint08.html
12. The Ministry of Foreign Affairs of Japan (MOFA), 2015. "Japan and India Vision 2025 Special Strategic and Global Partnership: Working Together for Peace and Prosperity of the Indo-Pacific Region and the World", December 12th, 2015.
http://www.mofa.go.jp/s_sa/sw/in/page3e_000432.html
13. The Ministry of Foreign Affairs of Japan (MOFA), 2016. "Japan-Viet Nam Foreign Ministers' Meeting", May 5th, 2016.
http://www.mofa.go.jp/s_sa/sea1/vn/page3e_000488.html
14. Nippon Kaigi/The Japan Conference. http://www.nipponkaigi.org/
15. Nagy, SR 2017. "In Japan's national interest: Shinzo Abe's visit to Pearl Harbour", in Asia & Pacific Policy Society (APPS) Policy Forum. January 6th, 2017.
https://www.policyforum.net/japans-national-interest/
16. 16 Nagy, SR 2017. "The problem of pacifism: The road to revising Japan's Constitution", in Asia & Pacific Policy Society (APPS) Policy Forum. May 11th, 2017.
https://www.policyforum.net/the-problem-of-pacifism/
17. "Abe sets 2020 target to revise Japan's pacifist constitution", in The Financial Times. May 3rd, 2017.
https://www.ft.com/content/a4d2aaa0-2fd9-11e7-9555-23ef563ecf9a
18. Borah, Rupakjyoti, 2015. "Japan's Controversial Security Bills Pass in the Upper House. Now What?" in The Diplomat. September 19th, 2015.
http://thediplomat.com/2015/09/japans-controversial-security-bills-pass-in-the-upper-house-now-what/
19. Boyd, Patrick, J "The perils of legislating Abe's collective self-defence", in the East Asian Forum. March 19th, 2015.
http://www.eastasiaforum.org/2015/03/19/the-perils-of-legislating-abes-collective-self-defence/
20. Maslow, Sebastian and Wirth, Chris. 2017. "Is Abe securing or threatening Japan's peace and democracy?" in the East Asian Forum. June 22, 2017.
http://www.eastasiaforum.org/2017/06/22/is-abe-securing-or-threatening-japans-peace-and-democracy/
21. Bosak, Micheal, M 2017. "Abe's Cabinet Reshuffle, Explained: Despite a drastic public opinion slide, Abe's new cabinet was remarkably consistent", in The Diplomat. August 5th, 2017.
http://thediplomat.com/2017/08/abes-cabinet-reshuffle-explained/
22. "End of the affair: The government of Shinzo Abe is increasingly at odds with the central bank", in The Economist. April 11th, 2015.
https://www.economist.com/news/asia/21648020-government-shinzo-abe-increasingly-odds-central-bank-end-affair
23. Yashiro, Naohiro. 2014. "Strategic zones and labour reform to get Abenomics back on track?" in The East Asian Forum. April 6th, 2014.
http://www.eastasiaforum.org/2014/04/06/strategic-zones-and-labour-reform-to-get-abenomics-back-on-track/
24. Mulgan, Aurelia George. 2016. "Japan's TPP agriculture spending a return to business as usual". in The East Asian Forum. January 6th, 2016.
http://www.eastasiaforum.org/2014/04/06/can-abes-third-arrow-pierce-japans-agricultural-armour/
25. International Monetary Fund (IMF). 2017. IMF Country Report No. 17/242: Japan. July 31st, 2017.
http://www.imf.org/en/Publications/CR/Issues/2017/07/31/Japan-2017-Article-IV-Consultation-Press-Release-Staff-Report-and-Statement-by-the-Executive-45149
26. Shoji, Tomotaka, 2015, "Japan's Security Cooperation with ASEAN: Pursuit of a Status as a "Relevant" Partner", National Institute of Defense Studies. Ministry of Defense (MOD)
http://www.nids.mod.go.jp/english/publication/kiyo/pdf/2015/bulletin_e2015_5.pdf

Central banks still run money creation

Daniel Dăianu is Professor of Economics at the National School of Political and Administrative Studies, Bucharest, a Member of the Board of the National Bank of Romania, a former Finance Minister of Romania, former MEP and a CASE fellow

The Great Recession has reignited the debate on 'who creates money', on the relationship between base money/outside money supplied by central banks and the inside money, which is created by commercial banks. It is in this context that the old controversy regarding the fractional-reserve banking system should be placed. This dispute should be linked with the equally old observation that the financial system is prone to crises, to instances of panic – to 'runs'.

What has been quite surprising to not a few is that a deep crisis hit so badly advanced economies which rely, presumably, on solid institutions and knowledgeable regulatory authorities. No wonder then that some voices have gone beyond the need for tight financial regulation and supervision and have come up with proposals aimed at a fundamental rethinking of the banking/financial system.

Mervyn King[1](who was governor of the Bank of England until 2013), Adair Turner[2] (former Chairman of the UK's Financial Services Authority), John Kay[3], Jaromir Benes and Michael Kumhof [BNR1][4], Martin Wolf, are among those involved in this debate. How banks are perceived by many citizens in not a few countries is also the proposal made in Switzerland for a referendum on fractional-reserves; similar heated debates have raged in other countries too.

The thoughts below dwell on money creation and the relationship between central banks and commercial banks, the money vs. credit debate, money creation and financial stability, unconventional policies, crypto-currencies and the money supply.

Commercial banks precede central banks

Central banks came up long after commercial banks; over time they developed their functions as we know them today: currency issue, monetary policy, lender of last resort (LoLR), deposit guarantee, safeguarding financial stability[5]. Some 'central banks' were established to serve another purpose as well: to finance military state campaigns, as was the case in England and France. This is what we would nowadays refer to as direct financing of general government budget deficits via money printing.

Commercial banks went through a period of 'free banking', which translated into unhindered competition and the absence of a central bank as issuer of a single currency and lender of last resort. The fractional-reserve system does not, therefore, originate in a philosophy (paradigm) of central bank functioning; it precedes the advent of central banks and is the outcome of commercial banks' realizing that they can grant loans and expand their balance sheets/business way beyond own funds and deposits taken. It may be asserted that central banks inherited the fractional-reserve system, but imposed prudential rules on the banking system – reserves to be held at the central bank, capital and liquidity requirements to be met in relation to bank assets, etc.

A central bank, as an issuing house, must ensure trust in the currency, particularly when dealing with fiat money. Modern economies are monetary par excellence, using money in financial and exchange transactions[6].

When central banks became issuing houses and LoLR, fractional reserves interacted with monetary policy. This happened because central banks tried to ensure price stability by controlling the quantity of money (monetary aggregates) and, during the past decades, especially via monetary policy rates (inflation targeting) – through the price of money. The shift away from controlling the quantity of money (monetary aggregates) to controlling the price of money, via the monetary policy rate, was grounded in the excessive variability of the relationship between base money and broad money, between the money issued by the central bank and the 'inside money' created by commercial banks.

The money vs. credit debate

The money vs. credit argument is old, amid the evolution of the fractional-reserve banking system. More than half a century ago, a much-debated report in the UK claimed that credit is also money (the *Radcliffe Report*). This thesis is revisited in a Bank of England study by Michael McLeay, Amar Radia and Ryland Thomas[7], which triggered, arguably, overdone controversy. This holds true to the extent one considers that inflation targeting, through the control over the price of money (via the policy rate), has stimulated credit expansion and made the financial cycle[8] more ample.

However, even by assuming that commercial banks create 'money' (inside money) via lending, it should be stressed that this is done by virtue of a mandate. The latter means that commercial banks work with/multiply base money (high powered money); they do not work with their own money. Banks use equity and deposits to acquire monetary resources. That in the UK, for instance, the central bank's money creation has come to account for merely around 3 percent of broad money does not change the process of money creation fundamentally, in the sense that the Bank of England can, ultimately, contain credit expansion through the price of money (through the policy rate and the transmission of the signal to money/financial markets).

Refuting this causality chain is like denying the role of prices in the economy, in the expansion or contraction of economic activity; or it would be tantamount to the assumption that commercial banks ignore the price of money pursued by the central bank – and, hence, that there would not be a monetary policy any longer. It is true that the transmission mechanism can be impaired, even break down, particularly during hard times (like in the recent financial crisis), but this does not invalidate the role of central banks in fulfilling their basic functions.

A telling evidence shows that the cash injected by a central bank into the banking system lies at the root of money creation. When the financial system ran the risk of collapse, as in the recent big financial crisis, central banks in the US and in EU member states, the ECB itself, had no choice but to inject massive liquidity, base money; it was not commercial banks that 'injected themselves' with money they had created. There is one more thing worth mulling over: when panic strikes, people withdraw their money from banks and may choose to keep it in 'money vaults'. Money could be transferred over to banks perceived as safer, yet a system-wide run on banks can be countered only via liquidity injections from a credible LoLR, which is an issuing house (a central bank).

Even if cash were abolished, things would not fundamentally be different because the functions of cash would be taken over by e-money (there are already suggestions in this regard, based on the need to cap the outflow of cash from the banking system). Cash could be replaced, let's say, by purchasing power units (PPUs) that would circulate electronically only. Banks' equity and deposits would be solely in this form; reserves at the central bank would also consist of such units. In other words, cash would drop out of the money-creation process without altering the relationship between base money and broad money. Commercial banks would provide loans in PPUs and credit expansion would hinge on household and corporate demand relative to the price of money (interest rates).

Commercial banks cannot create inside money (by granting loans) in an unlimited manner, by disregarding the price of money which is set by the monetary policy rate and the monetary transmission mechanism. It is true that, in an environment of very low policy rates (as is currently the case), monetary policy effectiveness is very much reduced. But even so, if demand for credit is highly subdued, commercial banks cannot embark on a money creation spree.

> *"When the financial system ran the risk of collapse major central banks had no choice but to inject massive liquidity, base money; it was not commercial banks that 'injected themselves' with money they had created"*

Several observations are warranted with regard to the relationship between central banks and commercial banks in today's world, when banking systems are no longer based on a gold standard or other metal equivalents:

- money in the system is fiduciary, it is based on trust, on the guarantees provided by public authorities (the state);
- commercial banks may not supply other money than that which is sanctioned by central banks. In economies where other currencies are in circulation as well (with substantial dollarization, euroization), it is possible to grant loans denominated in foreign currencies which are accepted by the central bank (though other currencies may also circulate in the informal economy);
- commercial banks are licensed by central banks;
- commercial banks are under the central bank's regulatory and supervisory scope.

Periods of time with intense deleveraging are also proof that base money sets the tone in the economy. Inside money (ie. the money created by commercial banks via multiplying credit) may vanish suddenly, whereas base money is not affected unless there is an outflow of non-residents' funds. This is what happened in numerous economies during the current crisis' years. While the stock of 'inside money' may contract via deleveraging, base money does not automatically decrease – unless the system witnesses outflows of funds. Granted, the monetary base could be caught in what Keynes called the 'liquidity trap', for during a deep crisis and very low inflation, the liquidity preference skyrockets[9].

Lending should be viewed in relation to the expansion of banks' financial operations. It is noteworthy that, in the context of over-financialization, the bulk of large banks' net income comes from trading, arbitrage, derivatives. Given growing interconnectedness, the result is an increasing fragility of the banking system as a whole.

Money creation and financial stability

There are two big challenges that a central bank has to deal with when it comes to monetary/financial stability: a) the effectiveness of the monetary policy transmission mechanism, via monetary aggregates control, or through the monetary policy rate – both instruments (a quantitative and a price tool respectively) trying to influence the level of economic activity, price dynamics (inflation); and b) what the money that is multiplied by banks is used for.

In recent decades monetary transmission has relied in most of the industrialized world on inflation targeting (IT), after it had been noticed that a control of monetary aggregates was pretty approximate, mainly due to money demand instability. But the recent financial crisis, while not bringing the end of IT, has shown major drawbacks of this regime too; these drawbacks refer to an under-looking of systemic risks and overreliance on price stability at the expense of financial stability (by disregarding financial asset prices).

Extreme events ('Black Swans', as named by Nassim Taleb), as well as rising uncertainty (Mervyn King calls it 'radical uncertainty', op.cit) which is to be distinguished from risk[10], have also revealed the limitations of approaches which presume a smooth functioning of markets ('the efficient markets hypothesis'). Hence, a growing dissatisfaction has emerged with macroeconomic models. As Claudio Borio from the Bank of International Settlements (BIS) put it, models in which the role of finance is underplayed are like 'Hamlet without the Prince'.

The other challenge, which does not pertain solely to a central bank, but rather to the financial system in its entirety, to the economy, is what is done with money. When the prevailing use is speculation deeply distorted financial cycles take shape, and this ends up in boom and bust episodes. A financial system that fosters speculation and indebtedness[11] is disruptive for the economy and unavoidably leads to deep crises – especially when contagion effects are strong. The past decades have witnessed a huge rise in the interconnectedness among banking/financial entities through the sheer size of derivatives.

When the US Fed was established back in 1913, what JP Morgan and others had in mind was the need for a lender of last resort in order to put an end to financial panic, to contagion (like that of 1907). But saving someone who deserves to live on is one thing, and rescuing an entity just because it is 'too big to fail' is another. There is a big dilemma in this respect. Similarly, the bail-in procedure, which is part of an overhaul of the functioning of banks in the European Union, is an attempt to involve investors in solving highly intricate situations, against the backdrop of very strained public budgets.

However, bailing-ins themselves present pitfalls. And in the case of big banks, gigantic financial entities, bail-outs will probably be resorted to eventually for fear of system contagion. No wonder Simon Johnson (former chief economist of the IMF), Neel Kashkari (one of the promoters of the package of measures known as TARP, whereby the collapse of the financial system in the US, and actually worldwide, was averted in 2008) and others advocate a break-up of giant banks. In his current position as president of the Federal Reserve Bank of Minneapolis, Kashkari said that huge banks are a systemic risk in itself to the economy, that they are 'too big to fail', and that they need to be broken 'into smaller pieces', to be shrunk[12]. Size is clearly a huge policy issue, but not less is interconnectedness; this is because even smaller entities can bring the whole system down if contagion is unstoppable.

The problem for central banks is therefore two-pronged: a) what kind of monetary policy to pursue (alongside macro-prudential measures/MPP) and b) how to regulate the financial system so as to mitigate/prevent crises. This is the context that has triggered debates on regulatory and supervision reform, as well as on the reform of the banking/financial system.

Unconventional policies

Quantitative easing (QE), which has been resorted to by major central banks as a means to stimulate economic activity – in an environment of very low monetary policy rates (ZLB - zero lower bound), translates into bond purchases on secondary markets; this is tantamount to injecting base money into the system (also through purchases of government securities). For instance, the Fed's balance sheet ballooned from USD 800 billion in 2008 to more than USD 4 trillion at end 2014. At the same time, inflation was stuck to very low level, with the 'liquidity trap' and disinflationary (deflationary) pressures at work globally.

In economies where capital markets play a major role (the US being the outstanding case), quantitative easing seeks to alter bonds' yields to maturity, which in turn would, arguably, entail a change in the propensity for current vs. future consumption; the assumption is that the economy faces an aggregate demand shortfall, to which adds a strong hysteresis effect (amid chronic underutilization of resources).

In Europe, where banks account for three fourths of economy funding, bets are particularly on the impact exerted by low interest rates on lending. However, the limited effectiveness of QE in this respect is quite visible. The problem is that the transmission mechanism is fractured, as lowering of interest rates do not stimulate credit demand as it is hoped for. But this should not be surprising in an environment of big debt overhang and high uncertainty.

Unconventional policies are an expression of concern about the state of economies, about the dwindling effects of implemented policies; some officials have dubbed the current state of affairs as 'sailing in uncharted territories'. Yet unorthodox policies themselves have limitations and twisted effects. That concerns are running high is also obvious in that some prominent voices allude to 'helicopter money', a phrase which was coined by Milton Friedman decades ago; this money, it is imagined, would feed through into consumption not via commercial banks, but as fiscal stimulus from the public budget. Budget deficits could be monetized as well through this method.

One should not forget that, in the early years of post-communist transition, deficit monetization was carried out to the dismay of many who underestimated the structural strain in economic systems when new relative prices called for a drastic reallocation of resources. But price liberalization caused pretty high inflation in transition (post-communist) economies (where repressed inflation was the modus operandi of the command system) whereas the Great Recession has entailed a much keener appetite for liquidity holdings, the so called 'liquidity trap' being at work.

Crypto (parallel)-currencies and the money supply

Bitcoin and other crypto-currencies (currencies that are not issued by central banks) have made a name for themselves against the backdrop of the Great Recession. At the start, it may have been the fear of huge instability and, eventually, of big inflation, which has fostered the emergence of parallel currencies as safer assets. But inflation has hardly materialized (at least, until now) and, instead, deflation (debt-deflation) has turned into a major headache for central banks and governments. And instability, disruptions and rising uncertainty are ongoing concerns in the global economy.

Crypto-currencies epitomize another feature of the impact of the Great Recession on society: a dramatic diminution of the trust citizens have in governments, policy elites; and central banks are seen as key institutional constructs of the modern public policy architecture and guardians of economic stability in a broad sense. The Crisis has shaken the trust in the capacity of governments and central banks to secure essential public goods.

A simplistic economic paradigm, with its ensuing reflection in the regulatory framework (light touch regulation), the belief in price stability as automatic purveyor of financial stability, are at the roots of the deep malaise. Bitcoin and other crypto-currencies mirror this mistrust; they are an attempt to create parallel money markets, to provide a medium of exchange which is not under the control of central authority (central banks), and which would fit non-hierarchical structures in society. Their social and economic significance runs consequently quite deeply.

Is money creation given an altered life by crypto-currencies? The latter are still an insignificant portion of the amount of money that serves as medium of exchange and store of value. And the propensity of cash to leave banks and circulate through non-bank circuits (not least owing to very low deposit rates) does not seem to have grown to a relevant extent.

In addition, it is not clear that crypto-currencies are as trustworthy as some claim them to be. Some of them have also been associated with online drug sales and hackers asking for ransom[13]; and they witness extreme volatility, which is not a commendable feature for a store of value. In the end, what matters for money to be accepted and used on a big scale is the comparative trust one puts in the issuer and its capacity to deliver what it claims to do.

Central banks, in spite of the huge psychological, social and economic fallout from the Great Recession, have been – as Mohamed El Erian put it – 'the only game in town', and the rescuer of last resort, as they are supposed to be. And this is likely to stay so for a long time. This said, however, finance has to change its behaviour and central banks and governments have a long way to go in order to redeem their reputation when it comes to the regulation and supervision of banks and non-banks alike. For business (finance) conduct has become a big systemic risk.

Fintech, however, with the block-chain as a formidable technological(financial) innovation can help banks and central banks to make payment systems more robust. Fintech, in general, is a formidable challenge for the financial industry, for banking. And central banks need to consider carefully the proliferation of non-banks, of companies that provide

financial services which were, traditionally, in commercial banks' yard.

Financial system overhaul proposals

Some reform proposals are aimed at tightening regulation and supervision, without touching the core architecture of the banking/financial system – recourse is made to higher capital and liquidity requirements, restraining certain operations, increased transparency, capping bankers' income, etc. The massive reduction in leverage (the possibility of using borrowed funds) is such a proposal[14].

It is worth mentioning here is the distortion brought about by practices in the logic of the Miller-Modigliani theorem and related theses, which posit that the capital structure (issuing debt instead of equity) is irrelevant. This kind of thinking had a twisted effect on the conduct of banks, which have increased their leverage (indebtedness) in a bid to improve their return on equity. With higher risk-taking, the system as a whole is ever more fragile.

Assertions that banks know how to manage their own risks become less credible considering the implicit subsidy they enjoyed over time (which also translates into moral hazard), the manner of determining the risk-adjusted value of assets (with underlying models being questionable), as well as the business conduct of many banks - in blatant disregard of what is lawful and ethical, and of central banks' prudential norms.

Mike Carney, the current Governor of the Bank of England and Chair of the Financial Stability Board, pointed several times to a big issue of 'banking culture', of banks' behaviour – an idea reiterated by top IMF and BIS officials. The market rigging that not a few large banks resorted to and many toxic products that clients were cheated into buying substantiate this profound ethical problem. This business conduct has enhanced the functioning of a banking/financial system as a quasi-perpetual source of systemic risks. The taxation system, which makes interest expenses tax deductible, has also added to the distortion that is linked with the logic of the Miller-Modigliani theorem.

The Dodd-Frank Act in the US and the reforms launched in Europe (in the EU) seek to regulate banking activity more strictly, shadow banking included. But there are numerous loopholes and the banking lobby goes to great lengths to 'sweeten' the legislation in line with the industry's own interests. In Europe, an attempt has been underway to separate retail from investment banking, yet universal banks are still standing. It is noteworthy that the *Liikanen Report* speaks about the separation of activities, but does it with much caution, understandably so by considering the source of banks' income – mostly from trading.

There are also reform proposals aimed at changing the design of the system, at changing business models. Eyes are set on the 'structure' of the banking system, which still enhances the use of derivatives, speculation; to this end there are opinions which support the introduction of a financial transaction tax (Tobin tax)[15]. In the EU, some member states (France and Germany, among others) advocate the taxation of short-term financial transactions.

Other views are quite radical and call for the demise of the fractional-reserve system; they have in mind ideas which were proposed, in the wake of the Great Depression, by Irving Fisher, Frank Knight (to whom we owe the distinction between risk and uncertainty), Henry Simons and Paul Douglas through The Chicago Plan. This plan was revisited by Jaromir Benes and Michael Kumhof (from the IMF) and is alluded to by Mervyn King (op. cit.).

Essentially, it is about breaking the link between base money and credit in the sense that banks which attract deposits should not extend credit by multiplying the funds taken in (or, as it is groundlessly claimed, that money is created out of nothing). The authors of the Plan and those who embrace this idea would break the banking system in two parts: deposit banks, which should not extend credit (and should be 100 percent backed by their assets), and lending banks, funded via private capital and long-term loans or via borrowings from the central bank. Thus, the whole money supply would consist of base money.

Finance reform proposals and what would happen to credit
None of the proposals to reform the banking system denies the need for and the usefulness of credit. The issue at stake concerns credit dynamics and, in this context, what is done with money. The use of money, which may cause excessive instability, is worth looking into. Along this line of reasoning one meets the financial cycle concept, which – according to BIS experts – may reveal substantial misallocation of resources (Jaime Caruana[16], Claudio Borio). Therefore, credit dynamics and what money is used for present much interest.

When resources are grossly misallocated, with ensuing major imbalances, the stage is set for a big crisis. A lesson of the recent crisis is that it makes sense to contemplate and use credit restriction measures (macro-prudential measures) while not ignoring market failures in resource allocation (for instance, the 'boom' in non-tradables).

But who is to supply credit? Even by assuming, in fantasy scenario, that base money alone (ie. money created by central banks) were to mediate transactions (narrow banks, as deposit banks, would no longer create 'inside money'), it would still end up in crises if investment failed on a large scale. What is envisaged here is not a natural cyclical motion of the economy, but rather a severe recession. If recourse were made to strict narrow banking (no credit done on banks' part), credit would migrate towards other financial institutions; this is already noticeable with shadow banking development.

Systemic risks would show up and would intensify in other areas of the financial system; panic and runs would take place on those particular segments of the financial system. All the more so if one considers the expansion of shadow banking and the very large volume of transactions which are conducted through it, the amounts of funds that move markets, as well as financial asset prices.

Moreover, it is natural to wonder whether, or to what extent the government is entitled, in a market economy, to control credit allocation. In so doing, not only that it may not foster good allocation, but it could undermine the very logic of market functioning, the free choices of firms and households alike. That a central bank may resort to macro-prudential measures to limit credit expansion, and possibly to influence certain trends, is a different story.

One question would be whether regulation can shape the system so that speculation made by banks can be diminished. That this is the case can be seen from the focus of regulators on the functioning of shadow banking, of capital markets with a huge turnover[17]. Could a financial transaction tax downsize on the volume of speculation? The answer is not clearly cut.

Financial markets in emerging economies are in general less developed, but this state of affairs is not necessarily negative; the thesis that economic development calls for deep financial markets should be fine-tuned – not least in light of the lessons of the Great Recession. Because what finance does, what money is used for matters enormously. It is a good thing for capital markets to develop, but it should finance, primarily, the economy alongside banks, or as an alternative to bank financing (when banks are reluctant to extend credit); if the stock market merely serves as a playing field, a 'casino' does not benefit the economy too much.

Concluding remarks

Monetary policy, in the future, will probably be a mix of monetary aggregates control (via the use of macro-prudential measures – which are a euphemism for capital movement control) and more pragmatic inflation targeting[18]. Banking, financial markets in general, will evolve along lines that are mentioned below:

- a clearer segregation between banking functions (retail vs. investment);
- tighter regulation and supervision, with limits on leverage and higher reserves;
- clients might have to pay for deposits (the other way round than is the case now): an effect of very low interest rates and savings on the rise (fear of sitting on a cash pile will make up for the lack of remuneration of deposits)
- regulation of shadow banking, given that it plays an increasing role and may compound systemic risks;
- capital markets will be regulated more tightly (not least due to quasi-banking type activities)
- fintech will also have to be regulated.

Crises cannot be eliminated; however, they can be contained in terms of magnitude, and systemic risks can be mitigated, although not completely done away with. There is need for an effective regulation of the financial system (and separation of retail banking from investment banking – restoration of a Glass-Steagall type legislation makes sense), including shadow banking, stronger capitalization of financial entities, capping leverage, etc. The purpose of macro-prudential tools is to cool down dangerous credit expansion.

Unless we manage to stave off a new major crisis in the near future, a very radical reform of monetary/financial systems cannot be ruled out, similar in spirit to the proposals aimed at separating lending banks from deposit banks (with full coverage of deposits by liquid assets), in a 'narrow banking' vein, and at ensuring a very strict regulation of banks and non-banks that provide credit. ■

1. Mervyn King, The End of Alchemy. Money, Banking and the Future of the Global Economy, London, Little Brown, 2016.
2. Adair Turner, Between Debt and the Devil, Princeton, Princeton University Press, 2016.
3. John Kay, Other's People Money. Masters of the Universe or Servants of the People, London, Profile Books, 2015.
4. Jaromir Benes and Michael Kumhof, "The Chicago Plan Revisited", IMF Working Papers, WP/12/202.
5. See also Charles Goodhart (The Central Bank and the Financial System, Cambridge (US), MIT Press, 1995) and Charles Kindleberger (A Financial History of Western Europe, Oxford, Oxford University Press, 1993).
6. The means-of-exchange function cannot be separated from interpersonal relationships. In a prison, cigarettes or bread crusts operate as money substitutes, having a means-of-exchange and, sometimes, even store-of-value function.
7. Michael McLeay, Amar Radia and Rydland Thomas, "Money Creation in the Modern Economy", Quarterly Bulletin, Q1, Bank of England, 2014.
8. See also Claudio Borio, "The Financial cycle and macroeconomics. What have we learnt?", BIS Working Paper No 395, December 2012.
9. For an interesting model on monetary policy and inside money see Monika Piazessi and Martin Schneider, "Payments, Credit and Asset Prices", paper presented at the BIS annual conference, Luzern, 21 July 2017
10. Which implies assessing events and associating probabilities of occurrence.
11. This is the "debt overhang" often referred to by Kenneth Rogoff and also the key theme of Adair Turner's book (op. cit.)
12. Neel Kashkari, "Fed official proposes bank break-up", Financial Times, 17 February 2016.
13. See "Move over, Bitcoin: it's time for Ether", The New York Times International Edition, 21 June 2-17, p.8
14. Anat Admati and Martin Hellwig recommend a big increase of capital and a cap on leverage to replace Basel III requirements, which continue to rely on the risk-weighted assets. This shows the distrust of the internal models used by banks, as well as of their conduct, their propensity for "making up" data, for resorting to illegitimate methods (Bankers' New Clothes. What's Wrong with Banking and What to Do about It?, Princeton, Princeton University Press, 2013).
15. In June 2015, John Kay was invited to deliver a speech at the BIS Annual Research Conference (ahead of the Annual General Meeting), in which he outlined the key themes of his book (op. cit.).
16. Jaime Caruana, "Stepping out of the shadow of the crisis: three transitions for the world economy", speech at the Annual General Meeting, BIS, Basel, 29 June 2014.
17. ESMA (The European Securities Markets Authority) is the European authority which regulates capital markets; it focuses increasingly on systemic risks which emerge on capital markets. ESMA, alongside EBA (The European Banking Authority) and EIOPA (The European Insurance and Occupational Pensions Authority), is part of the new architecture of the European system that regulates financial markets. ESRB (The European Systemic Risk Board) is the systemic risks focused watchdog for financial markets overall.
18. See also Axel Weber, "Rethinking inflation targeting" (Voxeu, 8 June 2015); "Challenges for Monetary Policy in the EU", Homer Jones Memorial Lecture at the Federal Reserve Bank of Saint Louis, 13 April 2011.

Financial stability a decade after the onset of the crisis

Janet L Yellen is Chair of the Federal Reserve

A decade has passed since the beginnings of a global financial crisis that resulted in the most severe financial panic and largest contraction in economic activity in the United States since the Great Depression. Already, for some, memories of this experience may be fading - memories of just how costly the financial crisis was and of why certain steps were taken in response. I will look back at the crisis and discuss the reforms policymakers in the United States and around the world have made to improve financial regulation to limit both the probability and the adverse consequences of future financial crises.

A resilient financial system is critical to a dynamic global economy. A well-functioning financial system facilitates productive investment and new business formation and helps new and existing businesses weather the ups and downs of the business cycle. Prudent borrowing enables households to improve their standard of living by purchasing a home, investing in education, or starting a business. Because of the reforms that strengthened our financial system, and with support from monetary and other policies, credit is available on good terms, and lending has advanced broadly in line with economic activity in recent years, contributing to today's strong economy[1].

At the same time, reforms have boosted the resilience of the financial system. Banks are safer. The risk of runs owing to maturity transformation is reduced. Efforts to enhance the resolvability of systemic firms have promoted market discipline and reduced the problem of too-big-to-fail. And a system is in place to more effectively monitor and address risks that arise outside the regulatory perimeter.

Nonetheless, the scope and complexity of financial regulatory reforms demand that policymakers and researchers remain alert to both areas for improvement and unexpected side effects. The Federal Reserve is committed to continuing to evaluate the effects of regulation on financial stability and on the broader economy and to making appropriate adjustments.

I will start by reviewing where we were 10 years ago. I will then walk through some key reforms our country has put in place to diminish the chances of another severe crisis and limit damage during times of financial instability. After reviewing these steps, I will summarize indicators and research that show the improved resilience of the US financial system-resilience that is due importantly to regulatory reform as well as actions taken by the private sector. I will then turn to the evidence regarding how financial regulatory reform has affected economic growth, credit availability, and market liquidity.

Developments 10 years ago

The US and global financial system was in a dangerous place 10 years ago. US house prices had peaked in 2006, and strains in the subprime mortgage market grew acute over the first half of 2007[2]. By August, liquidity in money markets had deteriorated enough to require the Federal Reserve to take steps to support it[3]. And yet the discussion here at Jackson Hole in August 2007, with a few notable exceptions, was fairly optimistic about the possible economic fallout from the stresses apparent in the financial system[4].

As we now know, the deterioration of liquidity and solvency within the financial sector continued over the next 13 months. Accumulating strains across the financial system, including the collapse of Bear Stearns in March 2008, made it clear that vulnerabilities had risen across the system.

As a result, policymakers took extraordinary measures: the Federal Open Market Committee (FOMC) sharply cut the federal funds rate, and the Federal Reserve, in coordination with the Treasury Department and other agencies, extended liquidity facilities beyond the traditional banking sector, applying to the modern structure of US money markets the dictum of Walter Bagehot, conceived in the 19th century, to lend freely against good collateral at a penalty rate[5]. Still, the deterioration in the financial sector continued, with Fannie Mae and Freddie Mac failing in early September[6].

But the deterioration from early 2007 until early September 2008-already the worst financial disruption in the United States in many decades-was a slow trickle compared with the tidal wave that nearly wiped out the financial sector that September and led to a plunge in economic activity in the following months. Not long after Fannie and Freddie were placed in government conservatorship, Lehman Brothers collapsed, setting off a week in which American International Group, Inc. (AIG), came to the brink of failure and required large loans from the Federal Reserve to mitigate the systemic fallout; a large money market fund 'broke the buck' (that is, was unable to maintain a net asset value of $1 per share) and runs on other money funds accelerated, requiring the Treasury to provide a guarantee of money fund liabilities; global dollar funding markets nearly collapsed, necessitating coordinated action by central banks around the world; the two remaining large investment banks became bank holding companies, thereby ending the era of large independent investment banks in the United States; and the Treasury proposed a rescue of the financial sector.

Within several weeks, the Congress passed-and President Bush signed into law-the Emergency Economic Stabilization Act of 2008, which established the $700 billion Troubled Asset Relief Program; the Federal Reserve initiated further emergency lending programs; and the Federal Deposit Insurance Corporation (FDIC) guaranteed a broad range of bank debt[7]. Facing similar challenges in their own jurisdictions, many foreign governments also undertook aggressive measures to support the functioning of credit markets, including large-scale capital injections into banks, expansions of deposit insurance programs, and guarantees of some forms of bank debt.

Despite the forceful policy responses by the Treasury, the Congress, the FDIC, and the Federal Reserve as well as authorities abroad, the crisis continued to intensify: the vulnerabilities in the US and global economies had grown too large, and the subsequent damage was enormous. From the beginning of 2008 to early 2010, nearly 9 million jobs, on net, were lost in the United States. Millions of Americans lost their homes. And distress was not limited to the US economy: global trade and economic activity contracted to a degree that had not been seen since the 1930s. The economic recovery that followed, despite extraordinary policy actions, was painfully slow.

What the crisis revealed and how policymakers have responded

These painful events renewed efforts to guard against financial instability. The Congress, the Administration, and regulatory agencies implemented new laws, regulations, and supervisory practices to limit the risk of another crisis, in coordination with policymakers around the world.

The vulnerabilities within the financial system in the mid-2000s were numerous and, in hindsight, familiar from past financial panics. Financial institutions had assumed too much risk, especially related to the housing market, through mortgage lending standards that were far too lax and contributed to substantial overborrowing. Repeating a familiar pattern, the 'madness of crowds' had contributed to a bubble, in which investors and households expected rapid appreciation in house prices. The long period of economic stability beginning in the 1980s had led to complacency about potential risks, and the buildup of risk was not widely recognized[8].

As a result, market and supervisory discipline was lacking, and financial institutions were allowed to take on high levels of leverage. This leverage was facilitated by short-term wholesale borrowing, owing in part to market-based vehicles, such as money market mutual funds and asset-backed commercial paper programs that allowed the rapid expansion of liquidity transformation outside of the regulated depository sector. Finally, a self-reinforcing loop developed, in which all of the factors I have just cited intensified as investors sought ways to gain exposure to the rising prices of assets linked to housing and the financial sector. As a result, securitization and the development of complex derivatives products distributed risk across institutions in ways that were opaque and ultimately destabilizing.

"... if we keep this lesson fresh in our memories... we have reason to hope that the financial system and economy will experience fewer crises and recover from any future crisis more quickly"

In response, policymakers around the world have put in place measures to limit a future buildup of similar vulnerabilities. The United States, through coordinated regulatory action and legislation, moved very rapidly to begin reforming our financial system, and the speed with which our banking system returned to health provides evidence of the effectiveness of that strategy. Moreover, US leadership of global efforts through bodies such as the Basel Committee on Banking Supervision, the Financial Stability Board (FSB), and the Group of Twenty has contributed to the development of standards that promote financial stability around the world, thereby supporting global growth while protecting the US financial system from adverse developments abroad. Preeminent among these domestic and global efforts have been steps to increase the loss-absorbing capacity of banks, regulations to limit both maturity transformation in short-term funding markets and liquidity mismatches within banks, and new authorities to facilitate the resolution of large financial institutions and to subject systemically important firms to more stringent prudential regulation.

Several important reforms have increased the loss-absorbing capacity of global banks. First, the quantity and quality of capital required relative to risk-weighted assets have been increased substantially[9]. In addition, a simple leverage ratio provides a backstop, reflecting the lesson imparted by past crises that risk weights are imperfect and a minimum amount of equity capital should fund a firm's total assets. Moreover, both the risk-weighted and simple leverage requirements are higher for the largest, most systemic firms, which lowers the risk of distress at such firms and encourages them to limit activities that could threaten financial stability[10].

Finally, the largest US banks participate in the annual Comprehensive Capital Analysis and Review (CCAR)-the stress tests. In addition to contributing to greater loss-absorbing capacity, the CCAR improves public understanding of risks at large banking firms, provides a forward-looking examination of firms' potential losses during severely adverse economic conditions, and has contributed to significant improvements in risk management.

Reforms have also addressed the risks associated with maturity transformation. The fragility created by deposit-like liabilities outside the traditional banking sector has been mitigated by regulations promulgated by the Securities and Exchange Commission affecting prime institutional money market funds. These rules require these prime funds to use a floating net asset value, among other changes, a shift that has made these funds less attractive as cash-management vehicles. The changes at money funds have also helped reduce banks' reliance on unsecured short-term wholesale funding, since prime institutional funds were significant investors in those bank liabilities. Liquidity risk at large banks has been further mitigated by a new liquidity coverage ratio and a capital surcharge for global systemically important banks (G-SIBs). The liquidity coverage ratio requires that banks hold liquid assets to cover potential net cash outflows over a 30-day stress period. The capital surcharge for US G-SIBs links the required level of capital for the largest banks to their reliance on short-term wholesale funding[11].

While improvements in capital and liquidity regulation will limit the reemergence of the risks that grew substantially in the mid-2000s, the failure of Lehman Brothers demonstrated how the absence of an adequate resolution process for dealing with a failing systemic firm left policymakers with only the terrible choices of a bailout or allowing a destabilizing collapse. In recognition of this shortcoming, the Congress adopted the orderly liquidation authority in Title II of the Dodd-Frank Wall Street Reform and Consumer Protection Act (Dodd-Frank Act) to provide an alternative resolution mechanism for systemically important firms to be used instead of bankruptcy proceedings when necessary to preserve financial stability.

The orderly liquidation authority contains a number of tools, including liquidity resources and temporary stays on the termination of financial contracts, that would help protect the financial system and economy from the severe adverse spillovers that could occur if a systemic firm failed. Importantly, any losses incurred by the government in an Orderly Liquidation Authority resolution would not be at the expense of taxpayers, since the statute provides that all such losses must be borne by other large financial firms through subsequent assessments. In addition, the Congress required that the largest banks submit living wills that describe how they could be resolved under bankruptcy[12]. And the Federal Reserve has mandated that systemically important banks meet total loss-absorbing capacity requirements, which require these firms to maintain long-term debt adequate to absorb losses and recapitalize the firm in resolution. These enhancements in resolvability protect financial stability and help ensure that the shareholders and creditors of failing firms bear losses. Moreover, these steps promote market discipline, as creditors - knowing full well that they will bear losses in the event of distress - demand prudent risk-taking, thereby limiting the problem of too-big-to-fail.

Financial stability risks can also grow large outside the regulated banking sector, as amply demonstrated by the events of 2007 and 2008. In response, a number of regulatory changes affecting what is commonly referred to as the shadow banking sector have been instituted. A specific example of such risks, illustrative of broader developments, was the buildup of large counterparty exposures through derivatives between market participants and AIG that were both inappropriately risk-managed and opaque. To mitigate the potential for such risks to arise again, new standards require central clearing of standardized over-the-counter derivatives, enhanced reporting requirements for all derivatives, and higher capital as well as margin requirements for non-centrally cleared derivatives transactions[13].

Another important step was the Congress's creation of the Financial Stability Oversight Council (FSOC). The council is responsible for identifying risks to financial stability and for designating those financial institutions that are systemically important and thus subject to prudential regulation by the Federal Reserve. Both of these responsibilities are important to help guard against the risk that vulnerabilities outside the existing regulatory perimeter grow to levels that jeopardize financial stability[14].

The financial system is safer

The evidence shows that reforms since the crisis have made the financial system substantially safer. Loss-absorbing capacity among the largest banks is significantly higher, with Tier 1 common equity capital more than doubling from early 2009 to now[15].

The annual stress-testing exercises in recent years have led to improvements in the capital positions and risk-management processes among participating banks. Large banks have cut their reliance on short-term wholesale funding essentially in half and hold significantly more high-quality, liquid assets. Assets under management at prime institutional money market funds that proved susceptible to runs in the crisis have decreased substantially.

And the ability of regulators to resolve a large institution has improved, reflecting both new authorities and tangible steps taken by institutions to adjust their organizational and capital structure in a manner that enhances their resolvability and significantly reduces the problem of too-big-to-fail.

The progress evident in regulatory and supervisory metrics has been accompanied by shifts in private-sector assessments that also suggest enhanced financial stability. Investors have recognized the progress achieved toward ending too-big-to-fail, and several rating agencies have removed the government support rating uplift that they once accorded to the largest banks. Credit default swaps for the large banks also suggest that market participants assign a low probability to the distress of a large US banking firm. Market-based assessments of the loss-absorbing capacity of large US banks have moved up in recent years, and market-based measures of equity now lie in the range of book estimates of equity.

To be sure, market-based measures may not reflect true risks - they certainly did not in the mid-2000s - and hence the observed improvements should not be overemphasized[16]. But supervisory metrics are not perfect, either, and policymakers and investors should continue to monitor a range of supervisory and market-based indicators of financial system resilience.

Economic research provides further support for the notion that reforms have made the system safer. Studies have demonstrated that higher levels of bank capital mitigate the risk and adverse effects of financial crises[17]. Moreover, researchers have highlighted how liquidity regulation supports financial stability by complementing capital regulation[18].

Economic models of the resilience of the financial sector - so called top-down stress-testing models - reinforce the message from supervisory stress tests that the riskiness of large banks has diminished over the past decade[19]. Similarly, model-based analyses indicate that the risk of adverse fire sale spillovers across banks or broker-dealers have been substantially mitigated[20].

Is this safer system supporting growth?

I suspect many would agree with the narrative of my remarks so far: the events of the crisis demanded action, needed reforms were implemented, and these reforms have made the system safer. Now - a decade from the onset of the crisis and nearly seven years since the passage of the Dodd-Frank Act and international agreement on the key banking reforms - a new question is being asked: have reforms gone too far, resulting in a financial system that is too burdened to support prudent risk-taking and economic growth?

The Federal Reserve is committed individually, and in coordination with other US government agencies through forums such as the FSOC and internationally through bodies such as the Basel Committee on Banking Supervision and the FSB, to evaluating the effects of financial market regulations and considering appropriate adjustments.

Furthermore, the Federal Reserve has independently taken steps to evaluate potential adjustments to its regulatory and supervisory practices. For example, the Federal Reserve initiated a review of its stress tests following the 2015 cycle, and this review suggested changes to reduce the burden on participating institutions, especially smaller institutions, and to better align the supervisory stress tests with regulatory capital requirements[21].

In addition, a broader set of changes to the new financial regulatory framework may deserve consideration. Such changes include adjustments that may simplify regulations applying to small and medium-sized banks and enhance resolution planning[22].

More broadly, we continue to monitor economic conditions, and to review and conduct research, to better understand the effect of regulatory reforms and possible implications for regulation. I will briefly summarize the current state of play in two areas: the effect of regulation on credit availability and on changes in market liquidity.

The effects of capital regulation on credit availability have been investigated extensively. Some studies suggest that

higher capital weighs on banks' lending, while others suggest that higher capital supports lending[23]. Such conflicting results in academic research are not altogether surprising. It is difficult to identify the effects of regulatory capital requirements on lending because material changes to capital requirements are rare and are often precipitated, as in the recent case, by financial crises that also have large effects on lending.

Given the uncertainty regarding the effect of capital regulation on lending, rulemakings of the Federal Reserve and other agencies were informed by analyses that balanced the possible stability gains from greater loss-absorbing capacity against the possible adverse effects on lending and economic growth[24]. This ex ante assessment pointed to sizable net benefits to economic growth from higher capital standards - and subsequent research supports this assessment[25]. The steps to improve the capital positions of banks promptly and significantly following the crisis, beginning with the 2009 Supervisory Capital Assessment Program, have resulted in a return of lending growth and profitability among US banks more quickly than among their global peers.

While material adverse effects of capital regulation on broad measures of lending are not readily apparent, credit may be less available to some borrowers, especially homebuyers with less-than-perfect credit histories and, perhaps, small businesses. In retrospect, mortgage borrowing was clearly too easy for some households in the mid-2000s, resulting in debt burdens that were unsustainable and ultimately damaging to the financial system.

Currently, many factors are likely affecting mortgage lending, including changes in market perceptions of the risk associated with mortgage lending; changes in practices at the government-sponsored enterprises and the Federal Housing Administration; changes in technology that may be contributing to entry by nonbank lenders; changes in consumer protection regulations; and, perhaps to a limited degree, changes in capital and liquidity regulations within the banking sector. These issues are complex and interact with a broader set of challenges related to the domestic housing finance system.

Credit appears broadly available to small businesses with solid credit histories, although indicators point to some difficulties facing firms with weak credit scores and insufficient credit histories[26]. Small business formation is critical to economic dynamism and growth. Smaller firms rely disproportionately on lending from smaller banks, and the Federal Reserve has been taking steps and examining additional steps to reduce unnecessary complexity in regulations affecting smaller banks[27].

Finally, many financial market participants have expressed concerns about the ability to transact in volume at low cost-that is, about market liquidity, particularly in certain fixed-income markets such as that for corporate bonds. Market liquidity for corporate bonds remains robust overall, and the healthy condition of the market is apparent in low bid-ask spreads and the large volume of corporate bond issuance in recent years. That said, liquidity conditions are clearly evolving. Large dealers appear to devote less of their balance sheets to holding inventories of securities to facilitate trades and instead increasingly facilitate trades by directly matching buyers and sellers. In addition, algorithmic traders and institutional investors are a larger presence in various markets than previously, and the willingness of these institutions to support liquidity in stressful conditions is uncertain.

While no single factor appears to be the predominant cause of the evolution of market liquidity, some regulations may be affecting market liquidity somewhat. There may be benefits to simplifying aspects of the Volcker rule, which limits proprietary trading by banking firms, and to reviewing the interaction of the enhanced supplementary leverage ratio with risk-based capital requirements. At the same time, the new regulatory framework overall has made dealers more resilient to shocks, and, in the past, distress at dealers following adverse shocks has been an important factor driving market illiquidity. As a result, any adjustments to the regulatory framework should be modest and preserve the increase in resilience at large dealers and banks associated with the reforms put in place in recent years.

Remaining challenges

So where do we stand a decade after the onset of the most severe financial crisis since the Great Depression? Substantial progress has been made toward the Federal Reserve's economic objectives of maximum employment and price stability, in putting in place a regulatory and supervisory structure that is well designed to lower the risks to financial stability, and in actually achieving a stronger financial system.

Our more resilient financial system is better prepared to absorb, rather than amplify, adverse shocks, as has been illustrated during periods of market turbulence in recent years. Enhanced resilience supports the ability of banks and other financial institutions to lend, thereby supporting economic growth through good times and bad.

Nonetheless, there is more work to do. The balance of research suggests that the core reforms we have put in place have substantially boosted resilience without unduly limiting credit availability or economic growth. But many reforms have been implemented only fairly recently, markets continue to adjust, and research remains limited. The Federal Reserve is committed to evaluating where reforms are working and where improvements are needed to most efficiently maintain a resilient financial system.

Moreover, I expect that the evolution of the financial system in response to global economic forces, technology, and, yes, regulation will result sooner or later in the all-too-familiar risks of excessive optimism, leverage, and maturity transformation reemerging in new ways that require policy responses. We relearned this lesson through the pain inflicted by the crisis. We can never be sure that new crises will not occur, but if we keep this lesson fresh in our memories - along with the painful cost that was exacted by the recent crisis - and act accordingly, we have reason to hope that the financial system and economy will experience fewer crises and recover from any future crisis more quickly, sparing households and businesses some of the pain they endured during the crisis that struck a decade ago. ■

Best Professional Services Provider

World Commerce Review is pleased to announce that TPC Management (UK) Limited has been awarded the Best Professional Services Provider 2018.

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

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

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

1. Over the 12 quarters ending in the first quarter of this year, borrowing by the nonfinancial business sector increased at an annual rate just above 6 percent, on average, and borrowing by households and nonprofit institutions rose at an annual rate of 3-1/4 percent, on average; the corresponding average pace of increase in nominal gross domestic product was 3-3/4 percent. Over the same period, lending by private depository institutions advanced at an annual rate of nearly 6-1/2 percent.
2. A contemporaneous perspective on subprime mortgage market developments at this time is provided in Ben S Bernanke (2007), "The Subprime Mortgage Market," [https://www.federalreserve.gov/newsevents/speech/bernanke20070517a.htm] speech delivered at the Federal Reserve Bank of Chicago's 43rd Annual Conference on Bank Structure and Competition, Chicago, May 17.
3. On August 17, 2007, the Federal Reserve Board reduced the primary credit rate at the discount window by 50 basis points and announced a change to the Reserve Banks' usual practices to allow the provision of term financing for as long as 30 days, renewable by the borrower. The changes were announced to remain in place until the Federal Reserve determined that market liquidity had improved materially. See Board of Governors of the Federal Reserve System (2007), "Federal Reserve Board Discount Rate Action," [https://www.federalreserve.gov/newsevents/press/monetary/20070817a.htm] press release, August 17.
4. The proceedings from the 2007 conference are instructive about the range of views regarding housing-related developments preceding the acute phase of the financial crisis. See Federal Reserve Bank of Kansas City (2007), "Housing, Housing Finance, and Monetary Policy," proceedings of an economic policy symposium (Kansas City: FRBKC) [https://www.kansascityfed.org/publications/research/escp/symposiums/escp-2007]
5. For a discussion of the correspondence between the steps taken by the Federal Reserve and those suggested by Walter Bagehot in the 19th century, see Brian F Madigan (2009), "Bagehot's Dictum in Practice: Formulating and Implementing Policies to Combat the Financial Crisis," speech delivered at the Federal Reserve Bank of Kansas City's annual economic symposium, Jackson Hole, Wyo., August 21. [https://www.federalreserve.gov/newsevents/speech/madigan20090821a.htm]
6. A timeline of developments in the United States over the financial crisis is available on the Federal Reserve Bank of St. Louis's website at https://www.stlouisfed.org/financial-crisis/full-timeline. The failure of Fannie Mae and Freddie Mac is marked by the decision of the Federal Housing Finance Agency (FHFA) to place Fannie Mae and Freddie Mac in government conservatorship on September 7, 2008. Links to documents outlining the actions taken around this time are available on the FHFA's website at https://www.fhfa.gov/Media/PublicAffairs/Pages/Conservatorship-of-Fannie-Mae-and-Freddie-Mac.aspx.
7. In the fall of 2008, the three largest investment banks were (in alphabetical order) Goldman Sachs, Merrill Lynch, and Morgan Stanley. Merrill Lynch agreed to be acquired by Bank of America, and the remaining two firms became bank holding companies.
8. The notion that popular sentiment may contribute to mispricing of assets--for example, the power of the madness of crowds--is attributed to Charles Mackay (1841), Memoirs of Extraordinary Popular Delusions and the Madness of Crowds (London: Richard Bentley). A more modern perspective, and one using a phrase as memorable as the madness of crowds, is provided by Robert J Shiller (2016), Irrational Exuberance, 3rd ed. (Princeton, NJ: Princeton University Press). The notion that economic stability can generate a buildup of imbalances that subsequently contributes to instability is presented in Hyman P Minsky (1974), "The Modeling of Financial Instability: An Introduction," in Modeling and Simulation, Vol. 5, Part 1, proceedings of the Fifth Annual Pittsburgh Conference (Pittsburgh: Instrument Society of America), pp. 267-72. A related discussion of how financial excesses often precede downturns (and even panics) is provided in Charles P Kindleberger and Robert Z Aliber (2005), Manias, Panics, and Crashes: A History of Financial Crises, 5th ed. (Hoboken, NJ: John Wiley & Sons). [http://digitalcommons.bard.edu/hm_archive/467]
9. These improvements encompass a number of changes. The regulatory requirements for capital have been increased and focus on Tier 1 common equity, which proved more capable of absorbing losses than lower-quality forms of capital. The role of bank internal models in determining risk-weighted assets also has been significantly constrained in the United States. In addition, exposures previously considered off balance sheet have been incorporated into risk-weighted assets.
10. The Federal Reserve Board, the FDIC, and the Office of the Comptroller of the Currency adopted a final rule to strengthen the leverage ratio standards for the largest, most interconnected US banking organizations on April 8, 2014. Under the final rule, covered bank holding companies must maintain a leverage buffer of 2 percentage points above the minimum supplementary leverage ratio requirement of 3 percent, for a total of 5 percent, to avoid restrictions on capital distributions and discretionary bonus payments (see Board of Governors of the Federal Reserve System, Federal Deposit Insurance Corporation, and Office of the Comptroller of the Currency (2014), "Agencies Adopt Enhanced Supplementary Leverage Ratio Final Rule and Issue Supplementary Leverage Ratio Notice of Proposed Rulemaking," joint press release, April 8). [https://www.federalreserve.gov/newsevents/pressreleases/bcreg20140408a.htm]
The Federal Reserve approved a final rule imposing risk-based capital surcharges on the largest, most systemically important US bank holding companies on July 20, 2015; in connection with the final rule, the Board issued a white paper describing the calibration of the risk-based capital surcharges (see Board of Governors of the Federal Reserve System (2015), "Federal Reserve Board Approves Final Rule Requiring the Largest, Most Systemically Important US Bank Holding Companies to Further Strengthen Their Capital Positions," press release, July 20). [https://www.federalreserve.gov/newsevents/pressreleases/bcreg20150720a.htm]
11. Moreover, the Federal Reserve's Comprehensive Liquidity Analysis and Review, in which supervisors analyze the liquidity risks and practices at large banks, has promoted improvements in liquidity-risk management. The US banking agencies also have proposed a net stable funding ratio (NSFR) to help ensure that large banks have a stable funding profile over a one-year horizon, and we are working toward finalization of the NSFR.
12. In addition to these steps, the Board issued another proposal to make G-SIBs more resolvable in May of last year (see Board of Governors of the Federal Reserve System (2016), "Federal Reserve Board Proposes Rule to Support US Financial Stability by Enhancing the Resolvability of Very Large and Complex Financial Firms," press release, May 3). [https://www.federalreserve.gov/newsevents/pressreleases/bcreg20160503b.htm]
This proposed rule would impose restrictions on G-SIBs' qualified financial contracts--including derivatives and repurchase agreements (or repos) - to guard against the rapid, mass unwinding of those contracts during the resolution of a G-SIB. The proposed restrictions are a key step toward G-SIB resolvability because rapidly unwinding these contracts could destabilize the financial system by causing asset fire sales and toppling other firms.
13. One area in which regulations have shifted to a lesser degree in the United States is that of time-varying macroprudential tools, in which regulatory requirements are adjusted to address changes in vulnerabilities that may affect the financial system. For example, US regulatory authorities have adopted rules that allow use of the countercyclical capital buffer, but other time-varying tools are limited in the United States. This issue is discussed in, for example, Stanley Fischer (2015), "Macroprudential Policy in the US Economy," speech delivered at "Macroprudential Monetary Policy," 59th Economic Conference of the Federal Reserve Bank of Boston, Boston, October 2. [https://www.federalreserve.gov/newsevents/speech/fischer20151002a.htm]
14. For example, the FSOC contributed, through its identification process, to the development of the Securities and Exchange Commission reforms affecting money market funds. The FSOC has also designated four firms as systemically important-AIG, GE Capital, Prudential, and MetLife. GE Capital chose to shrink, adjust its business model, and reduce its footprint in short-term wholesale funding markets-and hence reduce a source of systemic risk. These actions caused the FSOC to subsequently remove its designation as systemically important last year-illustrating how the designation process allows both identifying systemic firms and removing such designations when appropriate.
15. The increase in Tier 1 common equity among bank holding companies has been sizable, especially for the largest banks. If the largest banks are defined as either the eight US global systemically important banks or the US bank holding companies that participated in the CCAR in 2017 (and for which data are available for 2009:Q1), Tier 1 common equity has more than doubled in dollar terms and relative to risk-weighted assets from the first quarter of 2009 to the most recent observations.
16. For example, Natasha Sarin and Lawrence Summers have reviewed market-based measures of bank equity and related measures of bank risks and concluded that such measures have not improved since the mid-2000s. This assessment may understate the improvement in fundamental risk within the banking sector, as it takes the elevated valuations and low assessment of default risk implied by market prices during the earlier period as indicative of

fundamentals. Despite these shortcomings, their analysis is a useful reminder of the importance of considering both regulatory metrics and assessments implied by market prices. See Natasha Sarin and Lawrence H. Summers (2016), "Understanding Bank Risk through Market Measures (PDF)," Brookings Papers on Economic Activity, Fall, pp. 57-109. [https://www.brookings.edu/wp-content/uploads/2017/02/sarintextfall16bpea.pdf]

17. For example, see the review of evidence in Simon Firestone, Amy Lorenc, and Ben Ranish (2017), "An Empirical Economic Assessment of the Costs and Benefits of Bank Capital in the US (PDF)," Finance and Economics Discussion Series 2017-034 (Washington: Board of Governors of the Federal Reserve System, April). [https://www.federalreserve.gov/econres/feds/files/2017034pap.pdf] Some research is less supportive of the role of bank capital in limiting the risk of financial crises but suggests that higher levels of bank capital limit the economic costs of a financial crisis (for example, Òscar Jordà, Björn Richter, Moritz Schularick, and Alan M. Taylor (2017), "Bank Capital Redux: Solvency, Liquidity, and Crisis," NBER Working Paper Series 23287 (Cambridge, Mass.: National Bureau of Economic Research, March)). Some of the differences in findings across studies may be due to the degree to which the studies incorporate data from different countries and over different periods, as researchers disagree over the extent to which comparisons across countries or periods appropriately account for other factors that differ across such dimensions.

18. For example, Charles AE Goodhart, Anil K Kashyap, Dimitrios P Tsomocos, and Alexandros P Vardoulakis (2013), "An Integrated Framework for Analyzing Multiple Financial Regulations," International Journal of Central Banking, supp. 1, vol. 9 (January), pp. 109-43; and Gazi I Kara and S Mehmet Ozsoy (2016), "Bank Regulation under Fire Sale Externalities (PDF)," Finance and Economics Discussion Series 2016-026 (Washington: Board of Governors of the Federal Reserve System, April). [https://www.federalreserve.gov/econresdata/feds/2016/files/2016026pap.pdf]

19. For example, researchers at the Federal Reserve Bank of New York have developed a top-down stress-testing model, and simulation results from the model suggest that the resilience of the US banking system has improved since the crisis; see Beverly Hirtle, Anna Kovner, James Vickery, and Meru Bhanot (2014), "Assessing Financial Stability: The Capital and Loss Assessment under Stress Scenarios (CLASS) Model (PDF)," Staff Report 663 (New York: Federal Reserve Bank of New York, February; revised July 2015). [https://www.newyorkfed.org/medialibrary/media/research/staff_reports/sr663.pdf]

20. For example, see Fernando Duarte and Thomas Eisenbach (2013), "Fire-Sale Spillovers and Systemic Risk (PDF)," Staff Report 645 (New York: Federal Reserve Bank of New York, October; revised February 2015). [https://www.newyorkfed.org/medialibrary/media/research/staff_reports/sr645.pdf]

21. In response to the Federal Reserve's review and other information, the Board finalized a rule adjusting its capital plan and stress-testing rules, effective for the 2017 cycle, on January 30, 2017. The final rule removes large and noncomplex firms from the qualitative assessment of the Federal Reserve's CCAR, reducing significant burden on these firms and focusing the qualitative review in CCAR on the largest, most complex financial institutions. More generally, changes to improve regulatory and supervisory practices related to stress testing by reducing unnecessary burden while preserving resilience are under consideration. Possible changes have been discussed in Daniel K Tarullo (2016), "Next Steps in the Evolution of Stress Testing," speech delivered at the Yale University School of Management Leaders Forum, New Haven, Conn., September 26. [https://www.federalreserve.gov/newsevents/speech/tarullo20160926a.htm]

22. An overview of a set of principles that may guide such adjustments is discussed by Jerome H Powell (2017), "Relationship between Regulation and Economic Growth," statement before the Committee on Banking, Housing, and Urban Affairs, US Senate, June 22.
[https://www.federalreserve.gov/newsevents/testimony/powell20170622a.htm] In addition, the Federal Reserve Board has continued to engage in international efforts to assess the effects of reforms and possible adjustments; in this context, the FSB has developed a framework for the post-implementation evaluation of the effects of the Group of Twenty financial regulatory reforms; see Financial Stability Board (2017), Framework for Post-Implementation Evaluation of the Effects of the G20 Financial Regulatory Reforms (PDF) (Basel, Switzerland: FSB, July).
[http://www.fsb.org/wp-content/uploads/P030717-4.pdf]

23. The related literature is sizable. An early contribution is Ben S Bernanke and Cara S Lown (1991), "The Credit Crunch," Brookings Papers on Economic Activity, no. 2, pp. 205-47. Research finding a sizable negative relationship between capital requirements and lending includes Shekhar Aiyar, Charles W Calomiris, and Tomasz Wieladek (2014), "Does Macro-Prudential Regulation Leak? Evidence from a UK Policy Experiment," Journal of Money, Credit and Banking, vol. 46 (s1; February), pp. 181-214. Research finding little relationship between lending and capital ratios (outside financial crises) includes Mark Carlson, Hui Shan, and Missaka Warusawitharana (2013), "Capital Ratios and Bank Lending: A Matched Bank Approach," Journal of Financial Intermediation, vol. 22 (October), pp. 663-87. Research suggesting that higher capital levels may increase lending includes Leonardo Gambacorta and Hyun Song Shin (2016), "Why Bank Capital Matters for Monetary Policy (PDF)," BIS Working Papers 558 (Basel, Switzerland: Bank for International Settlements, April).
[http://www.bis.org/publ/work558.pdf]

24. For example, see Basel Committee on Banking Supervision (2010), An Assessment of the Long-Term Economic Impact of Stronger Capital and Liquidity Requirements (PDF) (Basel, Switzerland: BCBS, August); and Macroeconomic Assessment Group (2010), [http://www.bis.org/publ/bcbs173.pdf]
Interim Report: Assessing the Macroeconomic Impact of the Transition to Stronger Capital and Liquidity Requirements (PDF) (Basel, Switzerland: MAG, August). [http://www.bis.org/publ/othp10.pdf]

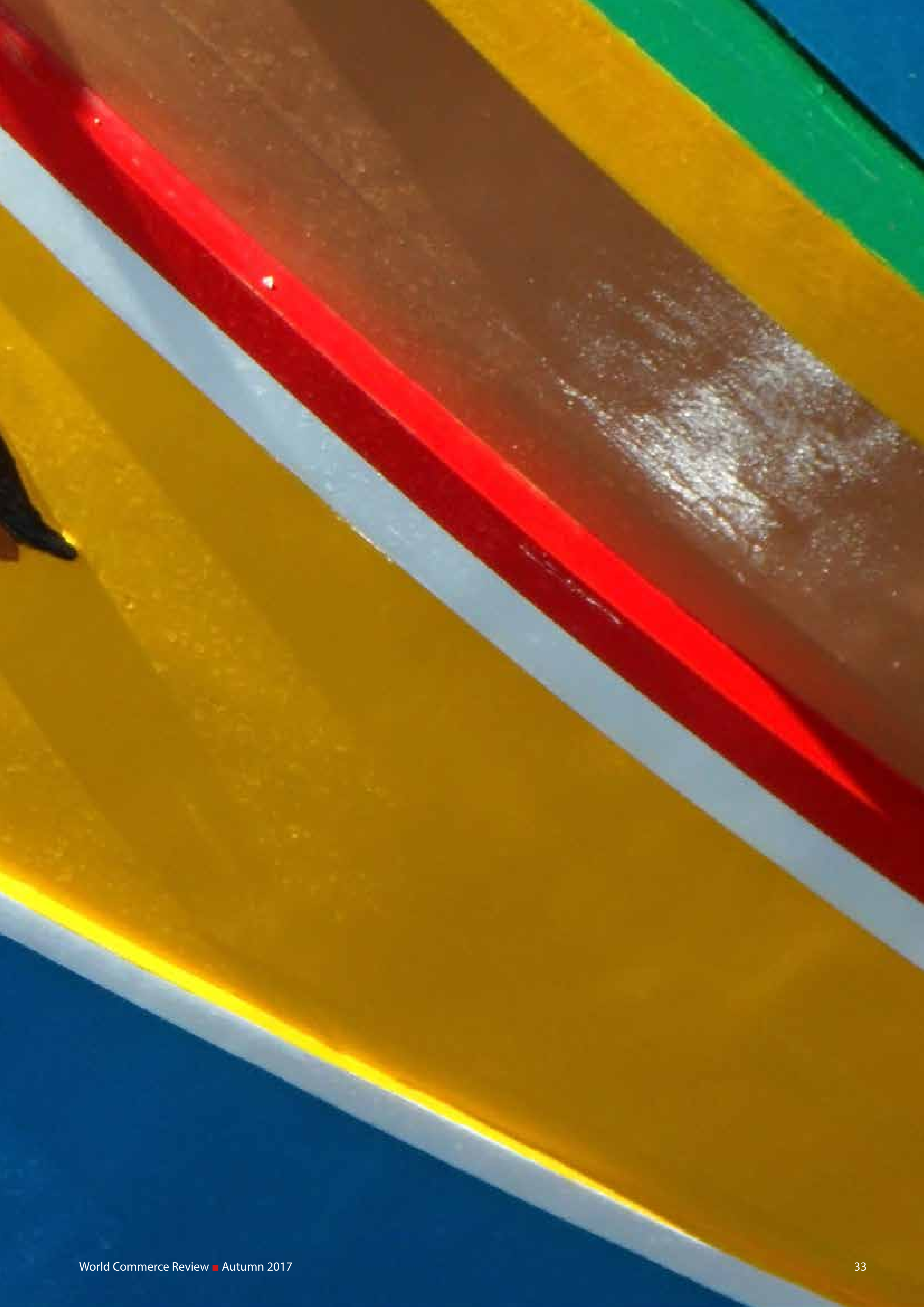
25. The ex ante studies from the Basel Committee and the Macroeconomic Assessment Group referenced in note 24 pointed to sizable net benefits from higher capital requirements. More academic research pointing to similar conclusions using macroeconomic models (and typically focused on model-specific measures of economic welfare) includes Michael T Kiley and Jae W Sim (2014), "Bank Capital and the Macroeconomy: Policy Considerations," Journal of Economic Dynamics and Control, vol. 43 (June), pp. 175-98; Laurent Clerc, Alexis Derviz, Caterina Mendicino, Stephane Moyen, Kalin Nikolov, Livio Stracca, Javier Suarez, and Alexandros P Vardoulakis (2015), "Capital Regulation in a Macroeconomic Model with Three Layers of Default," International Journal of Central Banking, vol. 11 (June), pages 9-63; and Juliane Begenau (2016), "Capital Requirements, Risk Choice, and Liquidity Provision in a Business Cycle Model," unpublished paper, Harvard Business School, September. Subsequent analyses, albeit ones that follow similar approaches, also suggest that there are net benefits to higher capital standards. One example is the analysis by Firestone, Lorenc, and Ranish, "An Empirical Economic Assessment," in note 17. Another is Ingo Fender and Ulf Lewrick (2016), "Adding It All Up: The Macroeconomic Impact of Basel III and Outstanding Reform Issues (PDF)," BIS Working Papers 591 (Basel, Switzerland: Bank for International Settlements, November). [http://www.bis.org/publ/work591.pdf] Indeed, this research points to benefits from capital requirements in excess of those adopted, a conclusion also reached in Wayne Passmore and Alexander H von Hafften (2017), "Are Basel's Capital Surcharges for Global Systemically Important Banks Too Small? (PDF)" Finance and Economics Discussion Series 2017-021 (Washington: Board of Governors of the Federal Reserve System, February). [https://www.federalreserve.gov/econresdata/feds/2017/files/2017021pap.pdf]

26. This conclusion is consistent with, for example, the findings in Federal Reserve Banks (2017), 2016 Small Business Credit Survey: Report on Employer Firms (PDF) (New York: Federal Reserve Bank of New York, April).
[https://www.newyorkfed.org/medialibrary/media/smallbusiness/2016/SBCS-Report-EmployerFirms-2016.pdf]

27. As I have discussed previously, the Federal Reserve has been considering improvements through a number of work streams. For example, the Federal Reserve and the other banking agencies have recently completed the Economic Growth and Regulatory Paperwork Reduction Act (EGRPRA) review. Under EGRPRA, the federal banking agencies are required to conduct a joint review of their regulations every 10 years to identify provisions that are outdated, unnecessary, or unduly burdensome. The Federal Reserve viewed this review as a timely opportunity to step back and identify ways to reduce regulatory burden, particularly for smaller or less complex banks that pose less risk to the US financial system. I discussed preliminary emerging themes from this review in Janet L Yellen (2016), "Supervision and Regulation," statement before the Committee on Financial Services, US House of Representatives, September 28.
[https://www.federalreserve.gov/newsevents/testimony/yellen20160928a.htm]
For the final EGRPRA report to the Congress, see Board of Governors of the Federal Reserve System, Office of the Comptroller of the Currency, Federal Deposit Insurance Corporation, and National Credit Union Administration (2017), Joint Report to Congress: Economic Growth and Regulatory Paperwork Reduction Act (PDF) (Washington: Federal Financial Institutions Examination Council, March).
[https://www.ffiec.gov/pdf/2017_FFIEC_EGRPRA_Joint-Report_to_Congress.pdf]

Based on a speech by Janet Yellen at "Fostering a Dynamic Global Recovery," a symposium sponsored by the Federal Reserve Bank of Kansas City, Jackson Hole, Wyoming

Looking forwards



Forward-looking Malta has laid the groundwork for a strong economy and an International Finance Centre of repute. A range of emerging sectors and business opportunities will help it retain its competitive position.

For centuries Malta has stood at the commercial crossroads linking Europe, Africa and the Middle East. The Phoenicians, Romans, Carthaginians, Arabs, Ottomans, Knights of St John, French and the British all ruled the island at one time and contributed to the mosaic that is modern Malta.

Britain's legacy has lasted the longest as Malta was part of the British Empire for over 150 years, until independence in 1964. Not surprisingly, English remains one of the national languages. The use of a legal system based on English law and the English language are international advantages, as well as a business-first climate and can-do attitude.

This is reflected in the education system, which is globally-recognised as being of high quality and producing a flexible skilled pool of workers for local and incoming business. To aid the economy further the communications network is constantly upgraded to leverage the latest technology and, crucially, network capacity is expanded as required.

Since independence in 1964 Malta has developed its role as a strategic business and trading hub, and since the 1980s Malta has pursued a strategy of developing a financial services centre.

While starting out as an offshore hub, Malta decided to move its financial services onshore. By introducing a strong supervisory framework as well as a competitive, transparent regime approved by both the European Union and the Organisation for Economic Cooperation and Development, Malta sought to distance itself from secrecy jurisdictions and tax havens.

The country's decision to join the EU in 2004, and later the eurozone in 2008, was integral to the expansion of its horizons and bolstered its status as a key business hub in the Euro-Mediterranean region.

With its successful economic track record, it is no surprise that Malta has constantly attracted steady inflows of foreign direct

investment across all sectors of the economy, with the finance sector currently accounting for more than 90 per cent of the total.

Malta's EU membership has been the key attraction for companies to set up operations on the island, while Malta's proximity to and cultural links with North African and Middle East countries are particularly attractive to companies that use the island as a stepping stone for trading, distribution and marketing of their international operations in North Africa.

Some prominent companies that have invested in Malta are HSBC, Microsoft, Playmobil, Uniblue, Betfair, Cardinal Health and Lufthansa Technik. In addition to strong historical and commercial ties to Italy and the UK, Malta enjoys healthy trade with France, Germany and Greece. The country's exposure to international commerce is one of the highest worldwide, and Malta has a wide network of some 70 tax treaties. The island's leaders are also constantly working on developing new ties with foreign governments in order to facilitate worldwide market access for all industries. Trade with Asia (mainly China and Singapore), Russia and the US is increasing.

Over the years, Malta has become a significant exporter of financial services and has accelerated efforts to increase the depth and breadth of its finance industry. The sector has demonstrated consistent annual growth over recent years. It now accounts for an estimated 13 per cent of the island's GDP and provides close to 10,000 jobs. Rated repeatedly as the 10^{th} soundest banking system in the world by the World Economic Forum's Competitiveness Index, Malta's banking sector is thriving.

The Government has provided critical support, and a range of opportunities exist for financial institutions to expand and grow their business in Malta. The scale of this transformation has been enough to position Malta as an alternative to established finance hubs such as Dublin, London and Luxembourg. Malta's finance sector has also been given a clean bill of health by rating agencies, the EU Commission and the International Monetary Fund.

Malta provides a broad and integrated suite of financial services, and the various parts of the financial sector not only serve important functions in their own right but are mutually reinforcing. The island has strong banking, insurance, investment funds and wealth management sectors, all of which are underpinned by EU-compliant legislation and regulation. Malta has gained a reputation as a jurisdiction for smaller financial services companies and startups, which offer clients more personalised services than those provided by the bigger firms.

The Maltese authorities' efforts over the last few years have also successfully attracted a large number of international banks such as Banif Bank, Deutsche Bank, FIMBank and HSBC. Fund administrators such as Apex, Citco and Custom House all have a presence in Malta, along with insurance managers such as AON, Marsh and Munich Re.

In addition, a number of Fortune 100 companies have set up operations here, including multinationals such as BMW, Citroën, Peugeot and Vodafone. Malta also boasts considerable expertise in the field of trusts and foundations, with many legal and accounting firms operating in-house trust companies in addition to international advisory networks. Malta is committed to ensuring that those companies and their clients in the financial services sector can enjoy a first-class regulatory regime and benefit from the Malta's pursuit of excellence. ■

The Trump doctrine on international trade: Part one

William Nordhaus is Sterling Professor of Economics at Yale University

President Trump's doctrine on trade represents a radical break with previous US policy. This column, the first of two examining the Trump doctrine, argues that he embraces fallacies as facts, and that the efforts to reform tax are flawed and will make tax law more complex. If enacted, the Auerbach-Ryan Tax Plan would be a mechanism by which the US government collects taxes to benefit rich citizens at the expense of the country's trading partners.

You might hear someone say, *"That's a fact. People can look it up."* It was not always so. The modern concept of a 'fact' emerged with the scientific revolution of the 16th century. Before that, descriptions of the natural world were determined by religious or secular authorities. The discovery of a new star by Tycho Brahe in 1572 was a 'killer fact' that ultimately destroyed the earlier conception of the heavens. In a well-functioning society, the status of a fact is decided by evidence and experiment[1].

Or so we thought. In a scene reminiscent of medieval times, the administration of President Donald Trump has turned the clock back to an era in which authority determines which facts are fake and which are real. This plays out daily in tweets and press conferences. The English language has been enriched with phrases such as 'fake news' and 'alternative facts.'

The notion of alternative facts was well described by George Orwell in *Nineteen Eighty Four* (Orwell 1949) as *"to be conscious of complete truthfulness while telling carefully constructed lies."* Even alternative facts can change, as when former White House press secretary Sean Spicer defended the employment data after attacking them, quoting Trump as saying, *"They may have been phony in the past, but it's very real now."* The White House is said to be considering creating alternative facts about trade by excluding re-exports from the trade balance (Maudlin and Barrett 2017), in effect creating a trade deficit for the entire world.

While the President and the press battle daily over facts, the more consequential struggle over ideas has been overshadowed. What are Mr Trump's economic ideas and philosophy? The Trump administration has largely embraced the standard Republican agenda items of lowering taxes, cutting spending, reducing the burden of regulation, and freeing the market.

There is one area where Trump as candidate and president has espoused an economic policy that is dramatically opposed to traditional Republican policies, however, and that is his embrace of trade protectionism. Since his rejection of free trade is so unusual, and so quintessentially Trump, it is worth a careful review.

The Trump campaign rhetoric is familiar to those who followed the 2016 presidential campaign. Here is a sample from 25 February 2016:

> *"It's not free trade; it's stupid trade…. I don't mind trade wars when we're losing $58 billion a year…. We are killing ourselves with trade pacts…. Free trade can be wonderful if you have smart people, but we have people that are stupid…. I think NAFTA has been a disaster."*

What lies behind the bluster? The Trump Theory of Trade has four strands at variance with modern economic analysis: overlooking the gains from trade, focusing on the trade deficit, ignoring the changing nature of trade, and disdaining the need for cooperation in international affairs. In this column, I review current thinking on these as well as losses from trade and the business tax proposal with border tax adjustment.

The gains from trade

The most fundamental point is that trade – whether domestic or international – is mutually beneficial. The basic analysis was developed exactly 200 years ago by David Ricardo in his theory of comparative advantage (Ricardo 1817). Ricardo used the examples of Portuguese wine and English cloth.

Today, the examples have changed but the principles are the same. By specialising in the production and export of goods that countries make relatively cheaply, and importing and consuming goods that the country makes relatively expensively, each country can improve its living standards.

While wine and clothing continue to be staples of international trade, we can use the iPhone as an example of the benefits of trade in the modern era. Some people may remember the first mobile telephone produced by Motorola in 1973. It was nicknamed 'the brick' – heavy, huge, and costing $10,000 in today's prices. Over the next four decades, vigorous competition between many companies around the globe led to the smart phone that is probably one of the most cherished products today, with 3 billion users[2].

One of the most fascinating stories about trade is a 'teardown' analysis of how the Apple iPod is made (Varian 2007). Our trade statistics record the iPod as made in China, but the analysis finds that China added only $4 of the $299 retail price, with the 451 parts being made by companies around the world. Apple earned about $80 for its design, research, and marketing. However, all this would not have been possible without the free trade in electronic products that allows easy exchange of the parts built into iPods and iPhones. The cameras in today's smart phones cost about $20 and produce a trillion pictures a year. These show, in vivid colour, how people around the world benefit from the vigorous competition inherent in international trade.

Suppose you were a reader of *Mad Magazine* when it was first published in 1952. You would need to wait for the US Postal Service to get your copy. Today, you can read the latest issue on your smart phone – after having used your phone to locate a coffee shop, buy the coffee, email your family, take a picture and send it to your family, check on your flight delay, read the news, and play a game. These would not have been possible without the gains from trade.

Focus on the trade deficit

One of Trump's major themes is that the US is losing in its trade policies, and the trade deficit shows the score. The administration's economic theory of trade was described at length by Peter Navarro, director of the White House National Trade Council in the Trump administration. His argument is as follows:

> *"The economic argument that trade deficits matter begins with the observation that growth in real GDP depends on only four factors: consumption, government spending, business investment and net exports (the difference between exports and imports). Reducing a trade deficit through tough, smart negotiations is a way to increase net exports—and boost the rate of economic growth". (Wall Street Journal,* 5 March 2017*)*

Navarro's statement is simply an accounting identity and does not recognize the effect of policies, trade or other, on output and employment. As economics, it fails on three grounds.

- A first mistake is to read any significance into bilateral trade balances. Here is a typical claim from Trump, made on Twitter on 26 January 2017: *"The US has a 60 billion dollar trade deficit with Mexico. It has been a one-sided deal from the beginning of NAFTA..."* One of the first lessons in economics is that bilateral trade balances have no significance in a multi-country world.

  A simple example with triangular trade will illustrate. Suppose the US exports $100 billion of computers to Australia, which exports $100 billion of wheat to China, which exports $100 of billion clothing to the US. The US has $100 billion deficit with China, but each of the three countries has a zero overall trade deficit. So what is the true 'score' for Mexico, its current account? Mexico was actually running a $36 billion deficit in 2016. While Mexico had a bilateral surplus with the US, it had large bilateral deficits with China, the EU, and Japan. So while the bilateral deficit is a fact, it is an irrelevant fact.

- A second mistake is the belief that trade deficits are an economic malady. Modern macroeconomics looks at the issue completely differently: trade deficits are the counterpart of low domestic saving and high foreign saving. My second column in this two-part series explains this as the paradox of the tail wagging the dog.

- The third flaw, closely related to the second, is the idea that trade deficits and job losses are the result of 'bad trade deals'. Actually, to a first approximation, trade deals have no impact on the unemployment rate or the trade deficit. Trade deals are important. They increase imports and exports of all sides of the deal. They increase the volume and variety of goods consumed and exported. Along the way, they produce economic benefits to both the US and its trading partners.

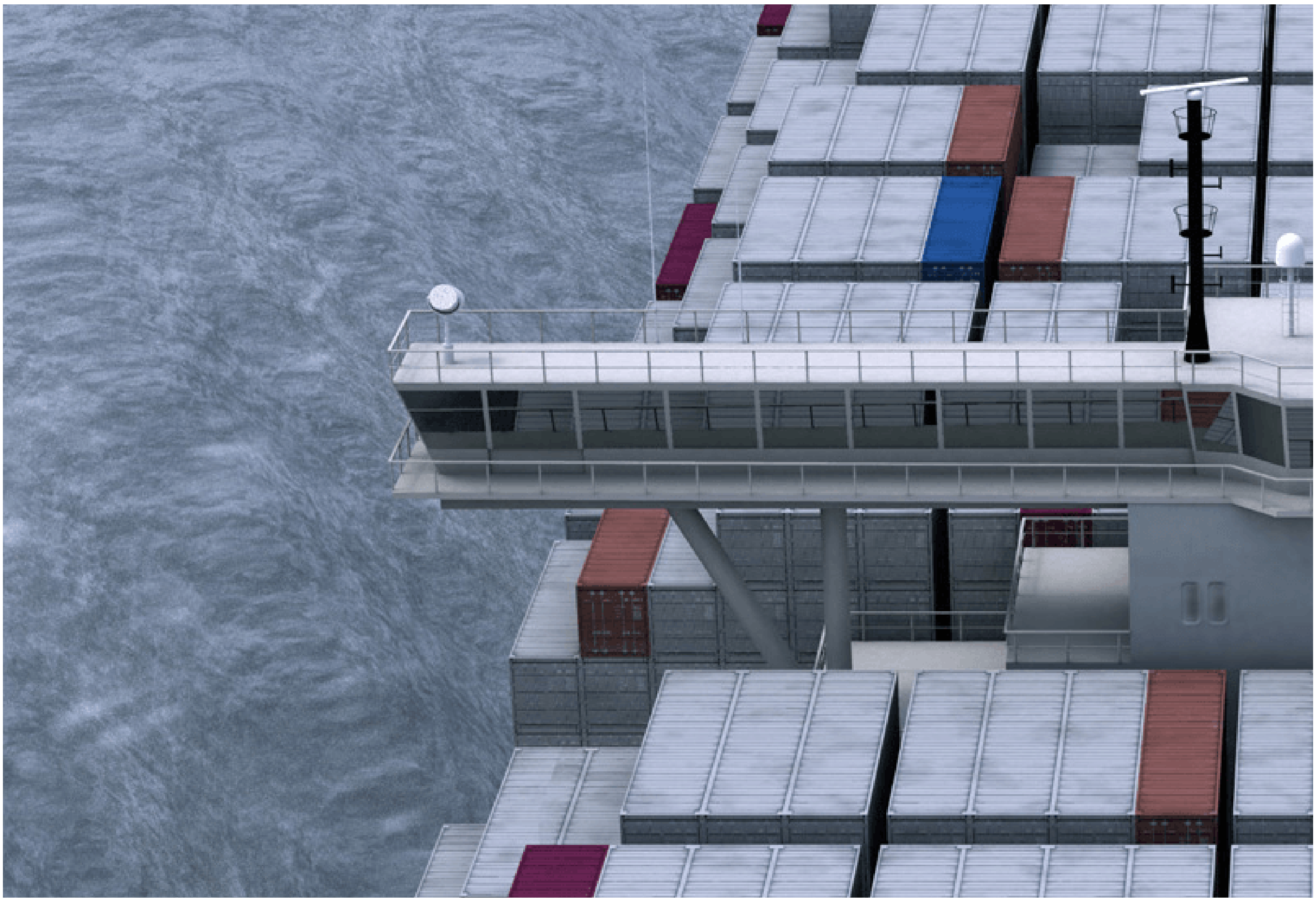
However, trade deals have minimal effect on joblessness. For the US, trends in unemployment are largely determined by monetary and fiscal policy as well as shocks such as wars and financial crises. And, to reiterate the second point, trade deals do not affect the trade deficit – this is determined by saving and investment trends at home and abroad.

The Auerbach-Ryan Tax Plan and border tax adjustment

Suppose that policymakers are alarmed about the trade deficit and wish to 'do something'. While economists might argue this is wrong-headed, or that the way to deal with trade deficits is through fiscal policy, one interesting new approach involves business tax reform and 'border tax adjustment'.

This new approach is the brainchild of Alan Auerbach, a distinguished fiscal policy economist at Berkeley (eg. Auerbach et al. 2017). The idea moved from the academy to Washington when it was proposed by the House leadership (Tax Reform Task Force 2016) – although at the time of this writing it is not on the Republican agenda for tax reform. It would have a major impact on trade and finance, so we need to weigh it carefully[3].

"The verdict on this new corporate tax proposal is that it has many attractive features, but it also has many disadvantages. It is mightily complicated, both domestically as a matter of tax law, and internationally in meshing with other countries' tax systems"



The technical name of this proposal is a 'destination-based cash flow tax', or DBCFT. It has two parts, one relating to cash flow and the other because it is destination-based. The first part is a move from the current corporation income tax to a cash flow tax. This would involve principally removing the tax preference that allows deductibility of interest and allowing investment to be completely deducted in the current year ('expensing').

The US Treasury estimated that the tax base would be about the same as today's tax system, so a straight change with unchanged tax rates would be roughly revenue-neutral (Patel and McClelland 2017). Many economists would favour this kind of reform (if it were revenue-neutral and distribution-neutral) because of the distortions caused by interest deductibility.

The second feature of the DBCFT is to change the cash flow definition to be destination-based. This is designed to correct for the international 'race to the bottom' in which companies minimise their taxes by moving their assets (such as intellectual property) to low-tax countries such as Ireland.

Companies race to the bottom because some elements of the current US corporate tax involve mobile factors. While it is hard to move my house or Wyoming's coal mines out of the US, and out of the US tax system, it is easy to move the ownership of Apple's intellectual property (IP). Suppose that Apple moved its IP from the US to Ireland. In the US, this would be taxed at the federal rate of 35%, but it was apparently taxed at only 0.005% in Ireland in 2014 (Taylor 2016).

DBCFT would move the tax base to where a good is consumed (ie. the destination) rather than on where it is produced (ie. the origin) because consumption is relatively immobile. We can move the production of running shoes to Vietnam, but I consume (ie. wear) my running shoes in Connecticut. In its focus on taxing consumption, the DBCFT is like a sales tax or a value-added tax.

From an international perspective, if Apple is taxed only on its domestic cash flow (US sales less US costs), then the location of ownership of its IP no longer enters into the calculation of US taxes. So the race is over because there is no reward for winning it.

Here is where the border tax adjustment comes in. The previous paragraph pointed to cash flow equalling *"US sales less US costs"*. This means that imports are not part of costs, and exports are not part of revenues. So if the DBCFT rate is 20%, then there is a tax of 20% on imports and a 20% subsidy on exports. Therefore, companies such as Walmart who are net importers are screaming foul, while major exporters are quiet.

This plan is devilishly complicated, and a few overview comments must suffice at this point. First, there is no country in the world that has the DBCFT… not a single one. As a result, there are huge obstacles to its implementation, such as because there is no experience with it, it does not comply with WTO rules, and it may violate tax treaties (for an explanation of some of the problems, see Graetz 2017).

A second point just mentioned is that many of the advantages would arise only if the DBCFT were universally adopted. However, it would make tax life more complicated and create new tax havens if the US adopted it and other countries did not. For example, the advantage of removing the tax arbitrage from locating intellectual property (IP) in a low-tax country would look quite different with partial adoption. Since imports are taxed and exports are subsidised under a DBCFT, there would be tax arbitrage possibilities from moving all IP (and other footloose costs) to the US. To put this in perspective, the WTO estimates that trade in IP was more than $300 billion in 2013[4].

Moving to a DBCFT system from an income tax system would involve tens of billions of dollars in tax reductions and reallocations. This is perhaps the most dramatic example of the distortions that would arise from unilateral adoption of this proposal.

Third, an important facet of the plan is that it would (in its pure form as applying only to goods) raise substantial revenues for the US. At a 20% tax rate, the import taxes would at last year's trade levels be $440 billion, while the export subsidies would be $290 billion. So this would lead to $150 billion in additional US federal revenues at current trade levels.

The total would be lower if services were included (because the US has a surplus there). Revenues would also be lower if the border tax adjustment reduces the trade deficit (as seems likely). Revenues would be further lower if other countries retaliate with their own border taxes. It is hard to imagine all the corporate finagling that would occur with those hundreds of billions of dollars at stake.

Some defenders of the plan argue that it will have little trade impact because the dollar exchange rate will adjust to offset the tax. To illustrate, if the dollar appreciates by 20%, then this will exactly offset the 20% import tax and export subsidy. While this is true as a matter of logic, there are at least two problems with this defence. First, several countries are actually or effectively pegged to the dollar (Hong Kong being an example).

Unless these countries specifically devalue by 20%, the offset will not occur. A second concern is the imbalance in the US financial account. At the end of 2016, the US owed $32 trillion to foreigners. If the dollar were to appreciate by 20%, this would comprise a $6.4 trillion capital gain to foreigners. The US owns $24 trillion of foreign assets, and US owners would suffer a huge capital loss with dollar appreciation. So if the defenders are right that dollar depreciation would offset the tax-and-subsidy aspect of the DBCFT, they need to defend the major wealth redistribution from Americans to foreigners.

Given all these problems, you might ask why Congressional Republicans are so enamoured with this plan. Conservative economists have for many years advocated a cash flow corporate tax. However, the 'destination-based' element, implying border tax adjustment, is a new feature of the tax landscape. The obvious reason is that Republicans need revenues to finance their 2017 version of a supply-side tax cut, and border tax adjustment could provide $1 trillion or more of revenues over the next decade. This feature is pure 'America first' in which taxes are collected to benefit the rich at the expense of trading partners.

The verdict on this new corporate tax proposal is that it has many attractive features, but it also has many disadvantages. It is mightily complicated, both domestically as a matter of tax law, and internationally in meshing with other countries' tax systems. While it has been shelved by the administration and Congressional leadership as of the summer of 2017, it seems a safe bet that the DBCFT will return. ■

1. For a discussion of the history of 'facts' and the role of the scientific revolution, see Wooton (2015). The quotation on "look it up" was Marco Rubio criticising Donald Trump for hiring Polish workers.
2. A useful history is found at https://en.wikipedia.org/wiki/History_of_mobile_phones. The number of smart phone users is an estimate that comes from https://www.statista.com/statistics/330695/number-of-smartphone-users-worldwide/
3. For an illuminating critique, see Graetz (2017).
4. For data on intellectual property trade, see https://www.wto.org/english/res_e/statis_e/its2014_e/its14_toc_e.htm

References
Auerbach, AJ, MP Devereux, M Keen and J Vella (2017), "Destination-Based Cash Flow Taxation", Oxford University Centre for Business Taxation working paper 17/01.
Graetz, M (2017), "The Known Unknowns of the Business Tax Reforms Proposed in the House Republican Blueprint", Columbia Journal of Tax Law, 8(117).
Mauldin, W and D Barrett (2017), "Trump Administration Considers Change in Calculating U.S. Trade Deficit", Wall Street Journal, 19 February.
Orwell, G (1949), Nineteen Eighty-Four, London: Secker & Warburg.
Patel, E and J McClelland (2017), "What Would a Cash Flow Tax Look Like for US Companies? Lessons from a Historical Panel", US Treasury Office of Tax Analysis working Paper 116.
Ricardo, D (1817), On the Principles of Political Economy and Taxation, London: J Murray.
Tax Reform Task Force (2016), "A Better Way, Our Vision for a Confident America", speaker.gov, 24 June.
Taylor, H (2016), "How Apple managed to pay a 0.005 percent tax rate in 2014", CNBC.com, 30 August.
Varian, H (2007), 'An iPod has Global Value. Ask the (Many) Countries That Make It,' The New York Times, 7 June.
Wootton, D (2105), The Invention of Science: A New History of the Scientific Revolution, London: Penguin.

A version of this article was originally published on voxeu.org

The Trump doctrine on international trade: Part two

William Nordhaus is Sterling Professor of Economics at Yale University

The change in the structure of global supply has important implications for US President Donald Trump as he contemplates tearing up existing international trade deals. This column argues that he risks destroying the fruits of almost 100 years of global trade cooperation, the benefits of which to citizens in the US far outweigh the costs. This spirit of cooperation is also the basis for coordinated global action on issues such as climate change.

In part one I examined the Trump Doctrine on trade and some of its key fallacies, along with the allure of the Auerbach-Ryan plan on business tax reform. In this column, I provide a further analysis of the economics of trade, including the potential losers and the broader role of trade policy in international cooperation.

The tail of finance wags the dog of trade

The modern theory of the trade balance, described here, will help explain why President Trump's focus on the trade balance is so misguided. International economic history exhibits a fundamental divide in 1973. Before 1973, the major economies of the world had fixed exchange rates. The gold or silver standards, used by the US from the time of the first US treasury secretary, Alexander Hamilton, until 1935, was such a system. After World War II, nations were on a dollar standard. In 1970 about 95% of world GDP was produced by countries operating with fixed exchange rates.

In 1973, the US and most other countries abandoned gold and fixed exchange rates. By 1975, more than 80% of the world's GDP was produced by countries operating with flexible exchange rates. The era of flexible exchange rates had arrived. A parallel trend has been the opening, or globalisation, of financial markets. Aside from China, virtually all countries today are open to financial inflows and outflows.

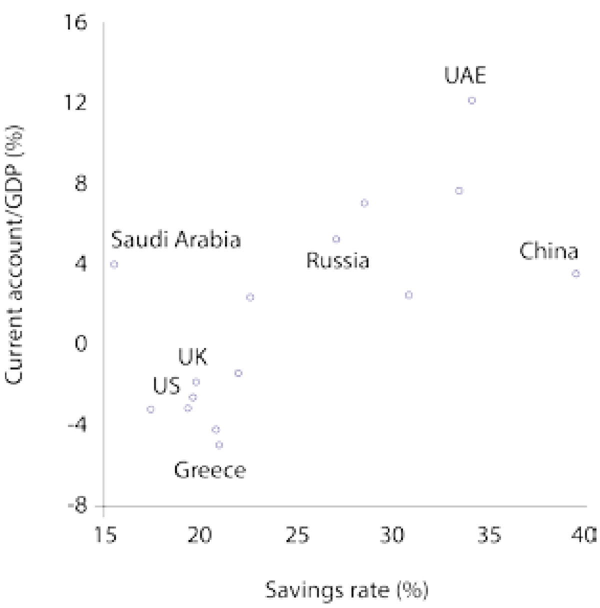
Once countries operate with flexible exchange rates and open financial markets, the trade balance marches to a different drum. US trade deficits (or more correctly, the current account balance, which includes services and transfers) are the accounting counterpart of low US national saving and high foreign saving. Economists believe, indeed, that the causality runs from national saving to trade. In other words, because the US has such a low domestic savings rate, US investment in research, equipment, and structures is partly funded by foreign saving. This foreign saving is registered as a balance of payments surplus, which is the exact counterpart of the deficit on trade and service account.

To put this in a homey way, we can say that the tail of finance wags the dog of trade. The dog of trade looms larger in terms of employment and output, but we must look at the tail to understand the movements in the dog.

To illustrate, the US is a low-saving country, and China is a high-saving country. Over the last quarter-century, China saved 44% of its national income, while the US saved 18%. The result was that China put its excess saving abroad through its trade surpluses, while the US did the opposite. More precisely, China ran a current account surplus amounting to 4% of income, while the US ran a deficit of 3% of national income. Other high-saving countries with trade surpluses were Japan, Hong Kong, and Germany, while low-saving countries with trade deficits included Mexico, South Africa, and the UK.

Figure 1 shows a more systematic picture. This displays the national saving rate on the horizontal axis and the current

Figure 1. National saving and the current account



account as a ratio of GDP on the vertical axis. For the current account ratio, a positive number is a surplus and a negative one is a deficit. We can see here that the US fits in nicely with the low saving countries. By contrast, oil producers, who have high savings rates, put their funds abroad and run surpluses.

An interesting example of the way foreigners save in the US is the accumulation of dollar reserves by foreign central banks. These nest eggs (totalling $6 trillion owed by the US to foreign official agencies) are held by foreigners to protect against speculative attacks on their currencies. But the result of this accumulation of dollars by foreigners is that the exchange value of the dollar is higher and the US tends to run a larger trade deficit.

Another source of financial flows into the US is a portfolio effect. Foreigners own about $10 trillion of US debt securities. Just for simplicity of exposition, suppose this is a constant 10% of foreign portfolios. If the portfolios are growing at 3% a year, then foreigners will need to buy $300 billion of US debt each year to maintain the 10% share. This would have to be offset by a trade deficit.

Hence, the paradox is that the US trade deficit is big because its financial markets are so attractive, not because of lousy trade deals.

The changing nature of trade

If you listen to Mr. Trump, you might think that air conditioners are made either in Mexico or US, or that cars are made in the US or Japan, or that airplanes are made either by Boeing or Airbus. At the speech on the unveiling of Boeing 787, Trump said, *"This plane, as you know, was built right here in the great state of South Carolina"*.[1]

Two hundred years ago, in the days of David Ricardo, it was largely true that goods were 'made' in one place. Such was standard during the 'first wave of globalisation', as has been described in the remarkable book on globalisation by Richard Baldwin (2016). Today, we have moved to the second wave. As with the iPhone or iPod described in my previous column, the production processes for cars, air conditioners, and airplanes have been sliced up very finely among different producers thanks to revolutionary declines in transport and communications costs. We live in the era of highly specialised global supply chains, which involve the increasingly intensive cross-border flows of goods, technology, investment, services, and workers.

Take the example of the Boeing 787. This is assembled in the US. But the central fuselages are made in Italy, the landing gears in Japan, the wingtips in Korea, the batteries in Japan, the engines in the US and UK, the cargo doors in Sweden, the passenger doors in France, the trailing wing edges in Canada and Australia, and the rear fuselages in the US. The key role of Boeing is actually the research, design, and coordination. American 'manufacturing' today is largely conceptual, not manual.

Take a step back to review the growth of international trade since World War II. According to the US Bureau of Economic Analysis, in 1945, total trade in goods and services (the sum of exports and imports) was 6% of US GDP. By 2016, total trade was 27% of GDP. This growth was paralleled in most other countries, and indeed other countries generally have larger trade openness than the US.

"Cooperation is not altruism in which 'stupid' negotiators allow countries to exploit the US. Rather, it is the expression of far-sighted self-interest that requires brains and grit and stamina"

What were the reasons behind this phenomenal growth? The first spurt came from the opening up of markets after the lifting of controls imposed during the Depression and World War II. This was accomplished through several rounds of international agreements lowering barriers to trade and finance along with the formation of the EU.

The most recent trade expansion was driven by changes in communications and transport costs. Almost everyone appreciates the role of the internet, which permits costless information transfers and thereby allows home countries to coordinate and control the vast supply chains that make possible low-cost production.

A less appreciated ingredient in the growth of trade has been containerised shipping ('the box'). Here is the way Marc Levinson (2016) describes it:

> *"On April 26, 1956, a crane lifted fifty-eight aluminum truck bodies aboard an aging tanker ship moored in Newark, New Jersey.… In 1956, the world was full of small manufacturers selling locally; by the end of the twentieth century, purely local markets for goods of any sort were few and far between.… By one careful study, the United States imported four times as many varieties of goods in 2002 as in 1972, generating a consumer benefit of 3% of GDP [amounting to $600 billion at today's level of income]."*

Containers represented an invention that was tailor-made for low-cost, high-volume international trade. The major beneficiary of the container revolution has been China. Whereas in 1990, China was barely on the container map, by 2014 six of the ten largest container ports were Chinese (or eight if we include Hong Kong and Singapore). In 2014, China's major ports shipped 126 million containers.

Containers did not just lower transportation costs; they allowed companies to reorganise their production processes. It would not be possible to ship all the different components of an iPhone around the world if they were taken on and off of ships and trucks and boxcars by hand, as in the earlier era of On the Waterfront. One study concluded that containerisation had an impact on a country's trade flows that was four times as important as joining the WTO (Bernhofen et al. 2016).

The structure of the global supply change has an important implication for Trump as he contemplates tearing up existing trade deals. Other countries are critical links in the value chain. Suppose he imposes a 45% tariff on China, as he has threatened (*New York Times* 2016). China might retaliate by slowing the assembly of iPhones and other American products. For want of a screw, the Apple kingdom would be lost. Similar concerns apply to every complex global production process. No country is an isolated and protected island in the great value chain.

Qualifications and the losses from trade

People are of two minds on trade. They love their inexpensive running shoes and smart phones, but they worry about the dislocations caused by trade. So consider the losses from trade, perceived and real.

International trade improves the lot of the vast majority of Americans and others around the world, but some are economically harmed along the way. Not just by international trade, but also by domestic trade – by the impersonal market forces that create new products and jobs, but destroy old ones. Markets are cool-headed but cold-hearted. As Arthur Okun said in his book on inequality, we should award two cheers for the market but not three (Okun 1975).

Begin with inequality. It seems likely that global inequality has been reduced by trade. The rapid growth in many low-income countries such as China and India has been spurred by export-led growth as well as technologies embodied in investments by cutting-edge companies from advanced countries. The growth in these large countries means that global inequality has been stable or declined slightly in recent years (Milanovic 2015).

The sources of inequality in the US are more complicated. The rising inequality has been concentrated at the top. From 1980 to 2015, the share of the top 1% rose from 11% to 20%, while the share of the bottom 80% fell from 56% to 49% (Milanovic 2015). Scholars who have studied the reasons have found many sources.

Studies point to forces such as the decline of labour unions, lower taxes on top earners, the labour-saving nature of technological change, the emergence of the superstar economy, immigration of low-skilled workers, the growing share of finance, as well as displacement of high-wage jobs in import-competing industries. While all these took place in the context of increased globalisation, it is hard to see trade imbalances as the major cause of rising inequality.

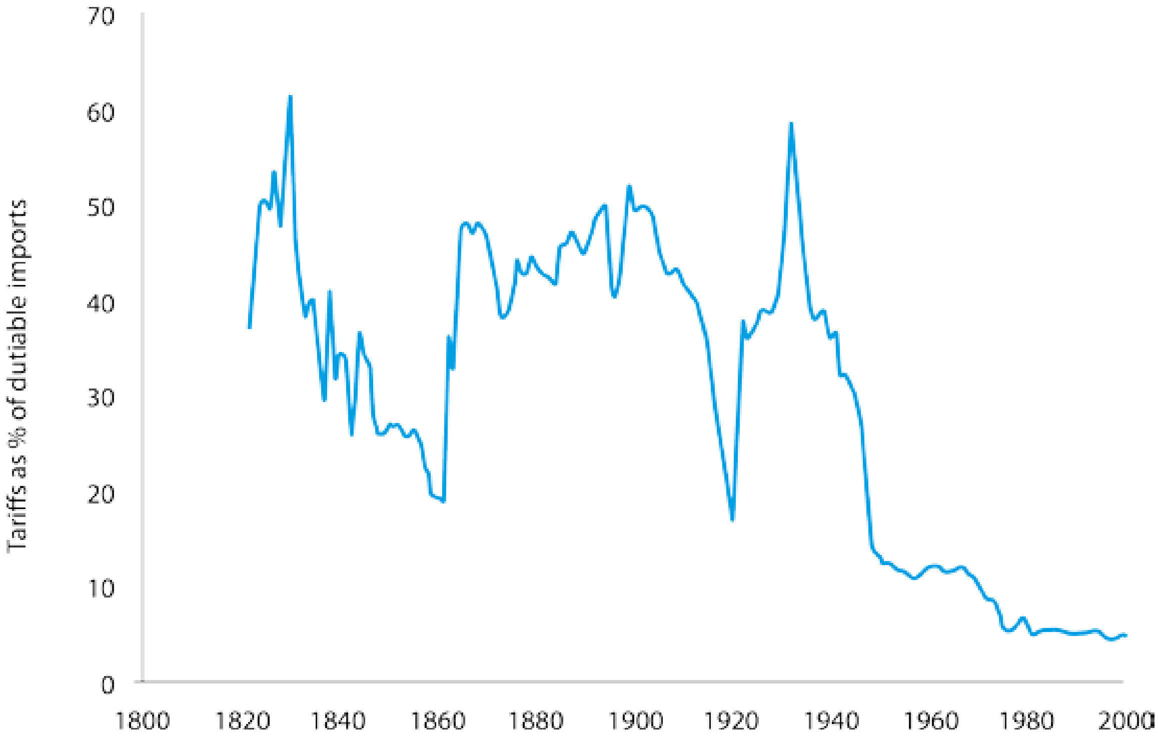
While globalisation has probably had a small effect on domestic inequality, a more important concern is the impact on employment. There is no doubt that trade has affected the composition of jobs. The major domestic impact of trade was on manufacturing employment.

According the Bureau of Economic Research, in the last three decades, employment in manufacturing declined from 16% to 9% of the US total. The largest percentage losses were in textiles, apparel, and printing. The reason is straightforward: foreign products have become relatively inexpensive, and domestic manufacturing output and employment have declined as a result.

While changes in trade patterns have had large effects on manufacturing, according to the Job Openings and Labor Turnover Survey (JOLTS) by the US Bureau of Labor Statistics, the total number of jobs increased by 10% over the 1998-2015 period. The losses in manufacturing were more than offset by gains in professional, health, and educational services. Roughly a half-million manufacturing jobs were 'lost' to other industrial countries (outside of China and India), but over this period the US economy gained 16 million jobs.

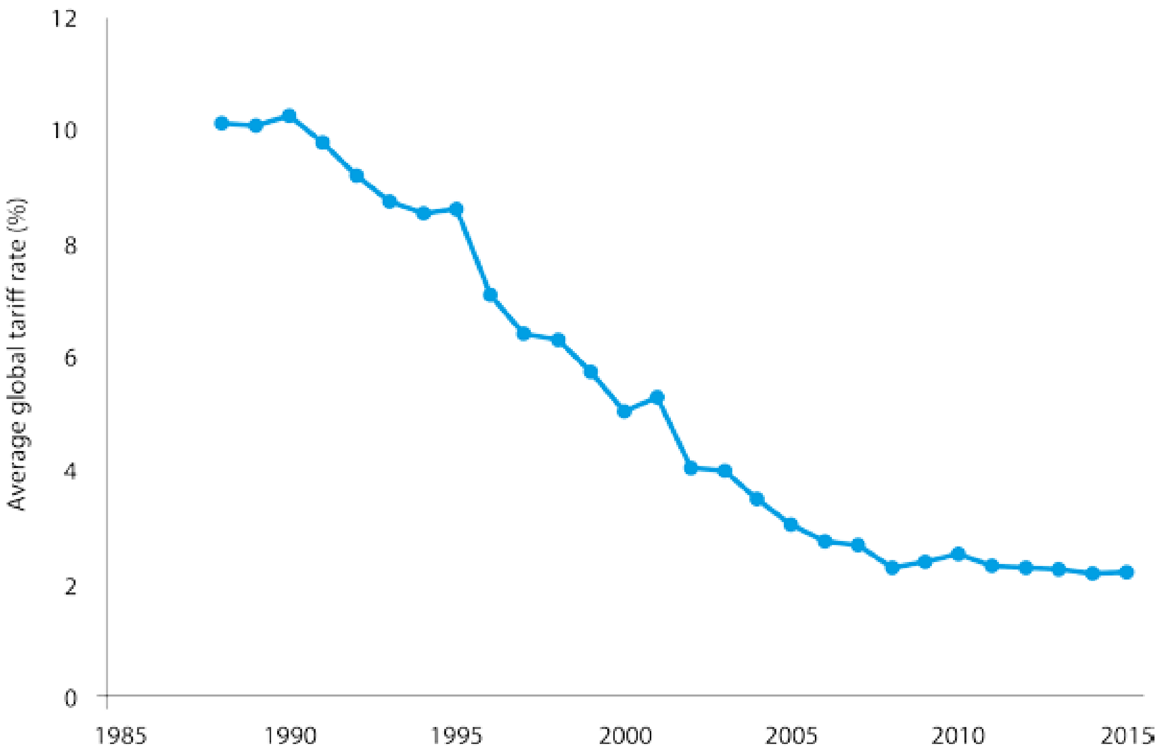
International trade shares an interesting asymmetry that is common to many intractable political problems, such as environmental policies. They tend to have widespread benefits but narrowly targeted and large losses. Virtually all of us benefit from the low prices and greater variety provided by international trade, but the job losses – in sectors like textiles and apparel, steel, and autos – are concentrated in a few sectors and communities.

Figure 2. Average US tariff rate,1820–2000



Source: Carter et al. (2006), Table Ee430

Figure 3. Average global tariff rate,1988–2015



Note: Averages of 64 countries representing 91% of world trade in 2010, weighted by 2010 shares of imports.
Source: World Bank.

A humane society would devise policies to compensate the losers from income losses from trade and technological shocks, but such policies run afoul of market fundamentalism. Indeed, conservatives undermine their own causes when they fail to enact policies to soften the blows of the market system that they, the conservatives, so admire.

The gains from international cooperation

A final flaw in Trump's conception is to think that trade deals are a zero-sum game – that when Mexico hires a worker to produce air conditioners, this robs America of a job. Perhaps, the president learned this lesson in a lifetime of bidding on real-estate deals, where one side wins and the other side loses. Or in running casinos, where the little people are literally losers, but a bad deal can bankrupt even the smartest.

In reality, international trade deals are completely different from casinos or real-estate transactions. Trade bargains are a game in which there are multiple outcomes. At one extreme, countries can fall into a harmful high-tariff, non-cooperative outcome, like the one envisioned in the prisoners' dilemma, where each country pursues its own nationalistic self-interest. Or they can pursue a cooperative free-trade strategy, in which countries agree to self-restraint and allow international competition, specialisation, and the division of labour to lower costs and raise living standards.

Returning to our example of the iPhone made around the world, we might ask, how did this happen? Why do we enjoy the free trade in electronic goods that produced the iPhone? What has provided us with the inexpensive running shoes, or the safer and less expensive cars? Today's free and open trading system was not only a product of the market. It was equally the result of a near-century of difficult and complicated negotiations among countries.

Historically, the US was a high-tariff country; For the period from 1820 to 1930, the average US tariff rate was almost 40% (Carter et al. 2006) The last major tariff-raising legislation was the Smoot-Hawley Tariff of 1930, at which point the average tariff rate peaked at 59%. Along with retaliation and military conflict, this led to serious disruptions to international trade in the Depression and beyond. Starting with the Reciprocal Trade Agreements Act of 1934, and going through several rounds of negotiations, nations progressively dismantled their tariff and non-tariff protectionist structures. The average global tariff rate declined from 10% in 1985 to 2% today. (Figure 2 shows the history of US tariffs, while Figure 3 shows global tariff rates.)

The important point here is that an open trading system is a victory won by the peaceful armies of trade negotiators. Open borders plus containers plus the internet plus innovation are the engines that have produced the cornucopia that American and other consumers enjoy. This is the cooperative regime of game theory, which required tireless efforts to escape a non-cooperative regime of high tariffs.

Trump's administration has already torn up the latest negotiated pact, the Trans-Pacific Partnership, and in May 2017 formally notified Congress of its intent to renegotiate the North American Free Trade Agreement (NAFTA). It has launched protectionist measures in lumber (CNN Money 2017) and threatens ones on steel (Reuters 2017). Up to now, there have been no countermeasures, but European Commission President Jean-Claude Juncker warned, *"We are prepared to take up arms if need be"* (*New York Times* 2017). Presumably, he means a trade war, not a ground invasion.

The threats to the international trading system illustrate the danger of Trump's world view. 'America first' is a non-cooperative ideology in which the US would pursue its narrow self-interest in trade, military policy, climate change, and nuclear policy. By pursuing the non-cooperative strategy, we forego the opportunities that can only be achieved when nations work together to solve global problems.

Cooperation is not altruism in which 'stupid' negotiators allow countries to exploit the US. Rather, it is the expression of farsighted self-interest that requires brains and grit and stamina. We have seen the results of a near-century of cooperation in international trade as well as in the declining deaths in war (Pinker 2011).

The US and other nations should reject the economic nationalism of Trump et al. and continue on the path to open our borders to trade, reverse nuclear proliferation, and slow climate change. Market forces can work miracles, but they cannot overcome the problems of pollution and war and human-imposed barriers to trade. ■

1. https://www.whitehouse.gov/the-press-office/2017/02/17/remarks-president-trump-unveiling-boeing-787-dreamliner-aircraft

References

Baldwin, R (2016), The Great Convergence: information technology and the new globalization. Cambridge, MA: Harvard University Press.

Bernhofen, DM, Z El-Sahli and R Kneller (2016), "Estimating the effects of the container revolution on world trade", Journal of International Economics 98: 36-50.

Carter, SB, SS Gartner, MR Haines, AL Olmstead, R Sutch and G Wright (2006), Historical Statistics of the United States: Millennial Edition, New York: Cambridge University Press.

CNN Money (2017), "Trump slaps first tariffs on Canadian lumber", 25 April.

Levinson, M (2016), The box: How the shipping container made the world smaller and the world economy bigger. Princeton: Princeton University Press.

Milanovic, B (2005), Worlds Apart: Measuring International and Global Inequality, Princeton: Princeton University Press.

New York Times (2016), 'Donald Trump Says He Favors Big Tariffs on Chinese Exports', 7 January.

New York Times (2017), "Once Dominant, the United States Finds Itself Isolated at G-20", 7 July

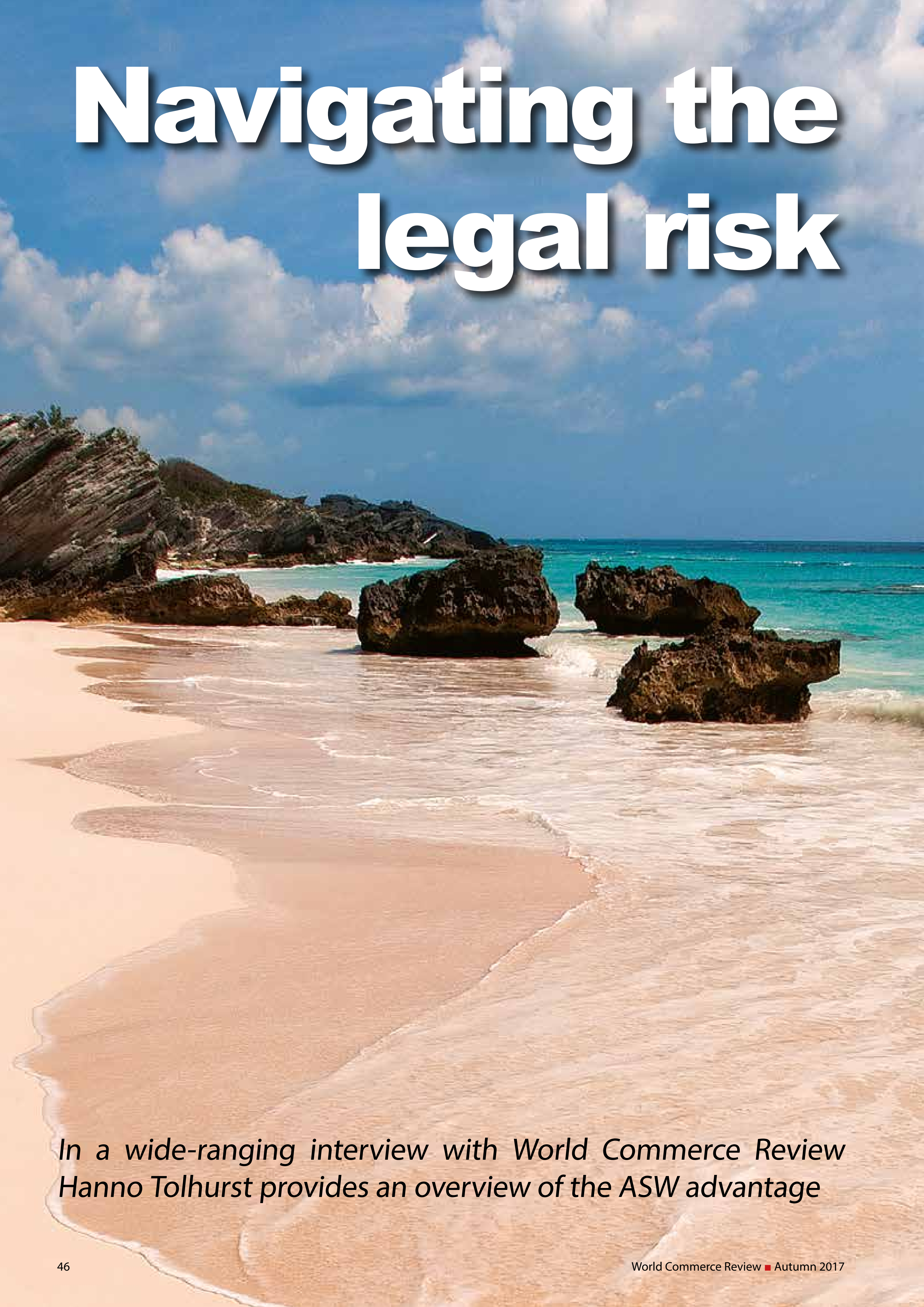
Okun, AM (1975), Equality and Efficiency: The Big Tradeoff, Washington DC: The Bookings Institution.

Pinker, S (2011), The Better Angels of Our Nature: Why Violence Has Declined, New York: Viking.

Reuters (2017), 'Despite delay, US expected to impose steel tariffs', 15 August.

A version of this article was originally published on voxeu.org

Navigating the legal risk



In a wide-ranging interview with World Commerce Review Hanno Tolhurst provides an overview of the ASW advantage

Please describe the history of the firm

ASW Law Limited (formerly Attride-Stirling Woloniecki Barristers & Attorneys) was established over 18 years ago, primarily as a commercial litigation firm with a focus on reinsurance disputes. Since then, ASW has built on these foundations to become the premier commercial litigation and arbitration practice in Bermuda and has grown its corporate practice such that our corporate team is recognised as among the best in Bermuda.

What key areas of expertise exist within the firm?

The firm's practice is divided into three principal areas: Corporate, Insolvency and Litigation.

Our barristers and attorneys have extensive legal experience in both Bermuda and a number of foreign jurisdictions. Many of our lawyers have practiced at the Bar in England or at leading law firms in London, New York, Frankfurt, Argentina, Canada and the Cayman Islands.

A number of our partners and senior counsel hold or have held senior positions within the Bermuda Government and the Bermuda regulator, the Bermuda Monetary Authority, or sit on a number of Bermuda Government advisory committees.

Our thriving corporate and insolvency groups are internationally recognised by clients and peers. We also have the premier commercial litigation and arbitration practice in Bermuda and are widely considered to be pre-eminent in insurance and reinsurance law. We also have detailed knowledge and extensive expertise in the areas of corporate, aircraft registration and finance, banking and hedge fund litigation, fraud litigation, shipping and admiralty disputes, telecommunications disputes, trusts disputes and international arbitration.

The firm is ranked highly in all of the major legal research directories, including Chambers & Partners, Legal 500, Who's Who Legal, IFLR 1000, Euromoney's Legal Media Guide to the World's Leading Lawyers and Practical Law Company. Of the firm's lawyers, Rod Attride-Stirling, Jan Woloniecki, Neil Horner and Kehinde George are listed as leaders in their respective areas of practice.

What benefits are conferred by a Bermuda base?

Bermuda is a politically and economically stable offshore jurisdiction, with many international businesses and their advisers based in Bermuda, specifically in the (re)insurance sector. A sophisticated business environment exists in Bermuda that benefits from a legal framework based on English common law and a regulatory regime that is recognised as Solvency II equivalent by the EU, one of only three jurisdictions worldwide to be so. Bermuda's reinsurance market is the world's third largest, the captive insurance industry was first developed in Bermuda and the domicile is a leader in this field, and Bermuda's insurance linked securities (ILS) market is the largest globally.

> *We also have the premier commercial litigation and arbitration practice in Bermuda and are widely considered to be pre-eminent in insurance and reinsurance law*

How has the captive industry developed in Bermuda?

The Bermuda insurance industry has its origins in the late 1940s but rapid development only started to take place with the advent of the captive insurance company, the first truly Bermudian insurance product, developed by Fred Reiss, the creator of the captive concept, in the early 1960s. Bermuda has since developed and grown into the world's leading captive domicile.

How does the global ASW network benefit the client?

ASW has developed informal and formal relationships with a number of legal firms around the world, particularly in the US, UK, Asia and reputable offshore jurisdictions, which our clients can draw upon. We also have a network of contacts at other key advisers and service providers in Bermuda and globally, which our clients benefit from.

How do you develop relationships with the client?

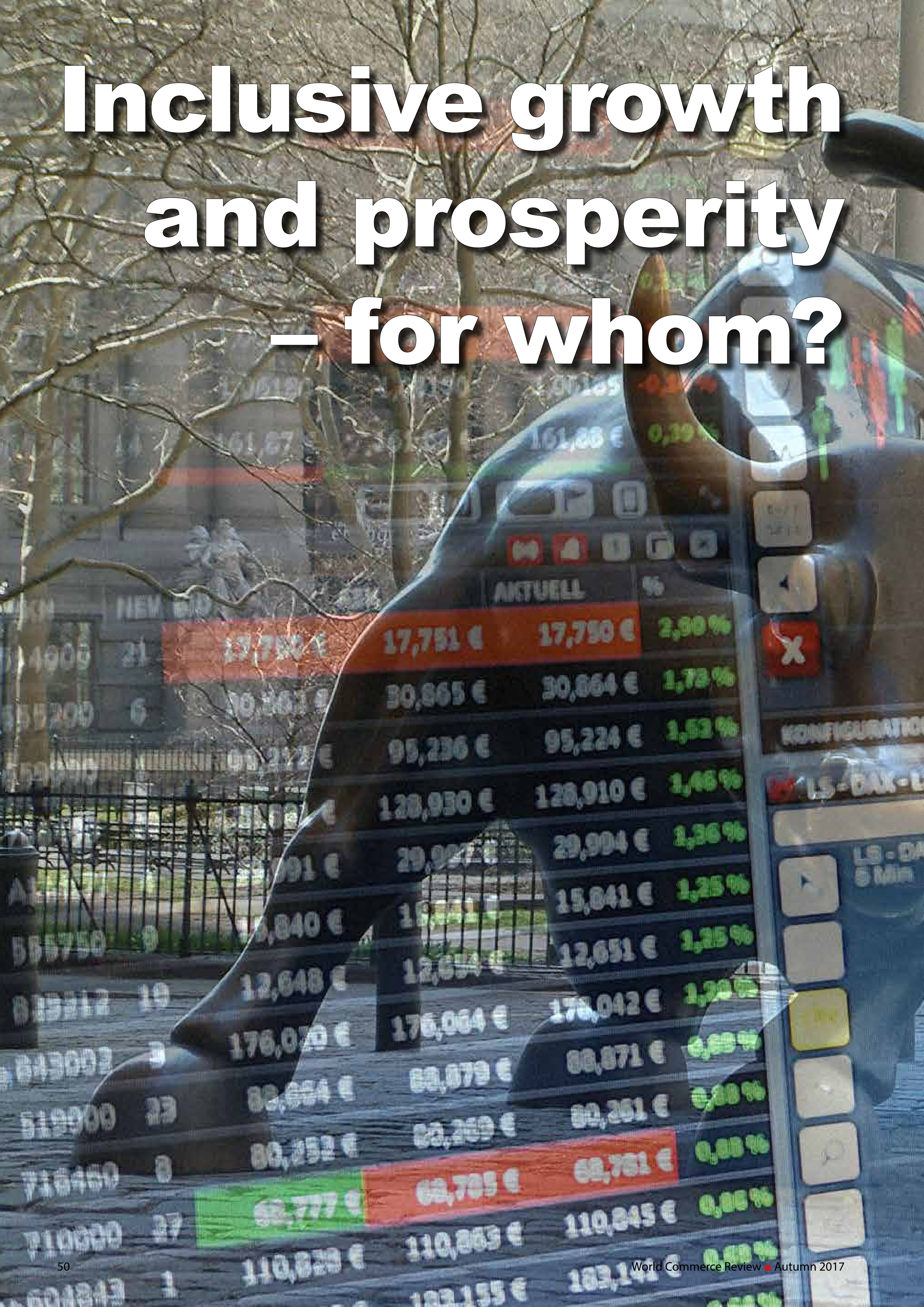
ASW has developed client relationships in Bermuda and globally by providing first rate, responsive legal advice. We see our clients as partners, with whom we seek to help develop their business interests. ASW also has an excellent network of contacts within Bermuda's international business sector, such that clients benefit from our relationships with other key advisers and service providers in Bermuda.

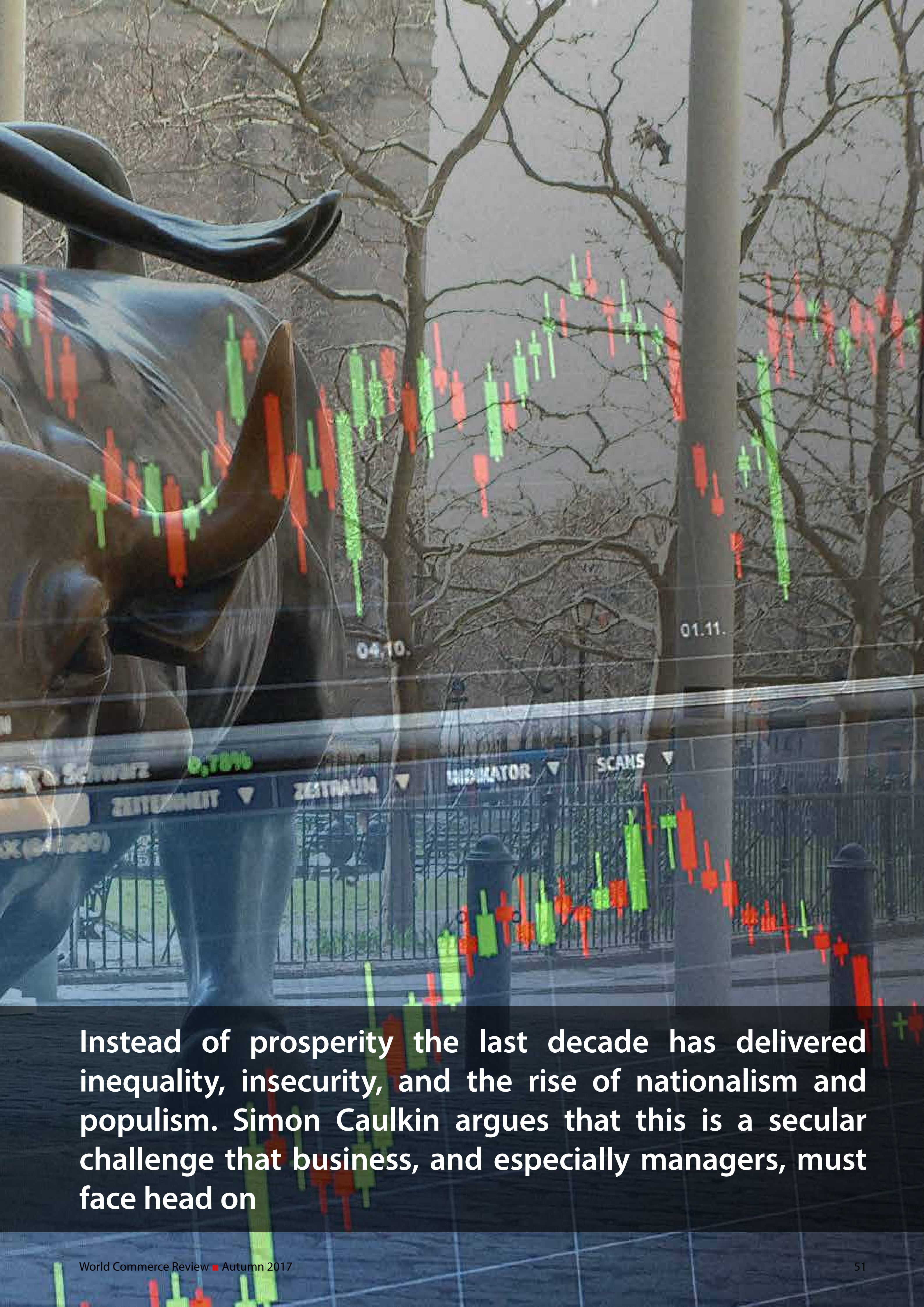
In conclusion, what is the ASW advantage?

ASW harnesses the collective wealth of knowledge and experience of its lawyers to provide expert legal advice in a timely and responsive manner. ASW has a particular focus on international clients and matters requiring Bermuda legal advice, whilst also servicing the local Bermuda market. Many of our lawyers have previous experience working for large, international law firms based in key jurisdictions such as New York and London, which makes ASW particularly adept at understanding the needs of our international clients and their onshore counsel. Clients benefit from a best in class service unrivalled by any other legal firm in Bermuda. ■

Hanno Tolhurst is a Corporate Counsel at ASW Law Limited, a leading, specialist corporate and commercial law firm based in Bermuda. Hanno's practice focuses on corporate insurance and reinsurance and general Bermuda law corporate advice.

Inclusive growth and prosperity – for whom?





Instead of prosperity the last decade has delivered inequality, insecurity, and the rise of nationalism and populism. Simon Caulkin argues that this is a secular challenge that business, and especially managers, must face head on

Inclusive growth and prosperity, the theme for this year's Global Peter Drucker Forum in November[1], sounds like the ultimate motherhood and apple pie. Who could be against it, and where's the problem? We just reboot the processes that have fuelled 200 years of capitalist progress which has sucked billions of the world's population out of poverty and into the cycle of expanding economic and social wellbeing.

If only it were so simple. To make *"the economy work for everyone"*, to quote UK premier Theresa May, will require everything but business as usual. As the technology scholar and historian Carlota Perez reminds us, to fulfil its potential, each major technological advance needs to take a different direction, based on a new synergy of technological, social and political choices.

Nearly 10 years after the global financial crisis, much of the world remains mired in the last paradigm, which has delivered the opposite of inclusion – inequality, insecurity, and the feeling of being excluded from global and technological advance – and thence Trump, Brexit and the rise of nationalism and populism. This puts business and management squarely in the front line. Managers can no longer shrug off wider responsibilities in the cause of maximising returns within the law. Inclusive growth and prosperity have to be what business is for.

As Drucker insisted: *"Free enterprise cannot be justified as being good for business. It can only be justified as being good for society".* Corporate responsibility is to deliver growth and prosperity for everyone, period. And that changes almost everything.

In previous growth cycles, jobs and wages were at the heart of what can now be seen as a virtuous circle in which wage growth led demand which fuelled investment, employment and higher productivity, feeding back into higher wages. Not only that: by redistributing the wealth created, employment was also a powerful vehicle of social mobility and inclusion.

But in the ideological shifts of the 1970s, this virtuous circle broke down. Economists promised that concentrating on the supply side and leaving the rest to the market would generate better economic outcomes. Economic policy shifted from full employment to inflation targeting; the pursuit of 'flexibility', often through deliberate weakening of worker organisations, became the watchword for labour markets.

A new emphasis on shareholder value triggered a move from retention and reinvestment of earnings to cost-cutting and distribution in corporate allocation strategies; and these combined with technological advance to launch a wave of global outsourcing that activated a very different cycle, its consequences starkly evident in the crash of 2008 and the subsequent still incomplete economic recovery.

A decade on, we are left with a 'human capacity-capability gap' that is structural, not cyclical. On one side seethes a sea of humanity that, as Stanford's Jeff Pfeffer reminded the 2016 Drucker Forum, more than anything in the world wants a regular job with a pay cheque. Yet good jobs are a minority: the world needs 1.9 billion more of them, according to Gallup. Good jobs are also a source of meaning and engagement

which, as Richard Straub and Julia Kirby note in their opening HBR blog for the Forum, are essential to the good life – *"and no elite minority should have a monopoly on that"*.

On the other side there is no lack of needs for this army to meet, while the range and sophistication of technological aids grow every day. In short, there is more than enough human and technological potential to power a new Golden Age of development based on the ICT-based revolution that began, just as the post-war virtuous circle was going into reverse, in the 1970s.

Yet that seems a long way off. In 2017 growth is stuttering. Productivity is static, innovation rates falling and new business formation modest. Average wages in the US have barely moved since the 1990s. In the US and UK, publicly-quoted companies are on the decline, their numbers having halved in the last 15 years.

Meanwhile, in the same economies the link between corporate growth and jobs has been severed, even, or especially, among tech start-ups. Michigan University's Gerald Davis spells it out: *"The shifts from outsourcing to Uberization have been largely driven by the corporate imperative to create shareholder value, and under our current conditions, creating shareholder value and creating good jobs are largely incompatible. Corporations are 'job creators' only as a last resort"*.

Small wonder that some leading economists hold that the era of growth is over and that we face a period of prolonged secular stagnation. Bluntly, on present trends, the pessimists will likely be right. But that is not inevitable. Technology is not destiny; nor is globalisation. Their direction is not random but shaped by decisions made by firms, governments and individuals.

In other words, there is a choice, and it is up to leaders of governments, corporations and civil institutions to shape it in ways that will benefit ordinary citizens as well as themselves – or, as we have seen, ordinary citizens will do it for them. As gatekeepers of the investment decisions that determine how the larger trends play out both macroeconomically and where it counts for individuals, in jobs and pay, managers bear the major responsibility here.

They cannot rely on an 'invisible hand' to bring about a new growth momentum or create demand for their offerings when (as must be close) consumers' ability to take on debt runs out. If the cost of shareholder (and executive) enrichment is the jobs of those who can no longer afford to buy the products created, the process becomes self-defeating. The engine of capitalism will grind itself to a halt.

Yet tantalisingly, the outlines of a new collective balance are discernible through the fog. New times will require big changes on all sides. For too long, acknowledges Salesforce chairman and CEO Marc Benioff, *"we have done our work in isolation, unaware of the effects our innovations have on societies and environment as a whole."* For Perez, *"We are in a crucial moment in history similar to the 1930s, requiring thinking and measures as bold as those of Keynes, Roosevelt and Beveridge."*

"Nearly 10 years after the global financial crisis, much of the world remains mired in the last paradigm, which has delivered the opposite of inclusion — inequality, insecurity, and the feeling of being excluded from global and technological advance — and then Trump, Brexit and the rise fo nationalism and populism. This puts business and management squarely in the front line"

Measures envisaged will have to go far beyond conventional supply-side adaptation, such as investment in education and infrastructures, to include the much-neglected demand side of the labour market equation and what drives it: the incentives which have fuelled short-termism, financialisation of the real economy and the race to the bottom in pay and conditions that have done so much to fuel insecurity and inequality.

Corporate governance can no longer be played as a private sport between directors and shareholders. It has macroeconomic consequences – and today it is clear that what is good for shareholders no longer works for the economy and wider society.

As many suspected, 'corporate social responsibility' was a diversion that served to evade management's defining challenge: to plot a path to inclusive growth and prosperity, recreating a virtuous circle which builds on rather than fights the distinctive properties of markets and companies. Just as flawed economic theory has caused managers to damage their companies through the pursuit of shareholder value, these too are due for fundamental review.

Growth and development are powered by innovation and its diffusion, in which companies and markets play different but interdependent roles. Consider the semiconductor industry cycle. First, the leader, typically Intel, creates a new generation microprocessor that gains a temporary market advantage for which it can charge high prices. As rivals catch up prices fall until the chip is a commodity. Thus, Intel's advantage is competed away by the wider market, handing the benefit to society as a new constellation of resources, and the cycle begins again.

This is business as a positive-sum game – value creation rather than appropriation – and reframes companies, in the late Sumantra Ghoshal's words, as *"society's main engine of discovery and progress"*. In like vein, businesses can be seen as society's problem-solvers and growth as a measure of the rate new solutions to problems become available. The genius of capitalism, in this view, is not allocation or efficiency but creation and effectiveness – evolutionary processes in which companies that fail to innovate eventually succumb to the rising tide of the market.

Conversely, the secret of the 'positive deviants' that stand out from rivals in many industries is their adoption of (in effect) innovation as a business model that keeps them constantly one step ahead of the market. Think Apple and Dyson in products and services, Toyota and Handelsbanken in management, WL Gore and Haier in both. The 'hidden champions' of the German Mittelstand are another less conspicuous example.

As the gig economy demonstrates, technology makes labour a commodity that can be contracted for in the market as easily as any other. But we still need companies, precisely as temporary protection from market forces allowing them to carry out their proper, but inherently messy and uncertain, vocation of innovation and exploration. Innovation in the sense of new solutions to human needs clearly demands renewed focus on the customer of the kind we are already seeing in the design thinking movement and in the emerging theory of 'jobs to be done'. The first should help to sharpen the focus of innovation in existing markets; the latter may point the way to solutions that create whole new markets.

While the major responsibility for corporate renewal rests with management, other actors also have important parts to play. Dawning recognition that governance changes are needed to support a longer-term corporate orientation and discourage free-riding is welcome – consider, if proof were needed, the price Unilever has had to pay for the privilege of upholding its model of long-term growth and sustainability. Among a flurry of international initiatives, it is significant that some of the biggest global investors are joining governments and civil institutions in exhorting companies to look to the longer term. These need to lead to action, not just talk.

As part of the new synergy, reassessment of the role of the public sector in innovation is overdue. The creation of economic value is a collective process. No business can operate without basic legal, physical and education infrastructures provided by the state. But as UCL's Mariana Mazzucato has stressed, innovation also needs strong publicly-funded research programmes like DARPA and the US National Institutes of Health that have yielded a deep seam of technologies such as biotechnology, the internet, voice recognition and others that countless companies continue to mine.

"The private sector does not 'create wealth' while taxpayer funded public services 'consume' it," notes Mazzucato. *"Rather, economic output is co-produced by the interaction of public and private actors – and both are shaped by, and in turn help to shape, wider social and environmental conditions."*

"The proper social responsibility of business is to tame the dragon, that is, to turn a social problem into economic opportunity and economic benefit, into productive capacity, into human competence, into well-paid jobs, and into wealth"

The final component of a broad new innovation wave is a direction for the collective forces of society and business to pull in. The current mode of deploying technology primarily to cut costs, or for the sake of it, does not fit the bill. Far from spreading prosperity, too much does the reverse, redistributing existing rather than creating new value, and sharing it in ways that are more unequal than before. There is no shortage of compelling alternatives for clusters of research, technologies and industries to cohere around. Obvious examples are the biosciences and genomics to underpin healthier lifestyles, green growth and new approaches to disease and ageing populations.

What all such 'meta' orientations have in common is their potential to align business and society by turning urgent human problems into meaningful economic opportunity. This perfectly chimes with Peter Drucker's 1984 definition of the corporation's real social responsibility: *"The proper social responsibility of business,"* he wrote, *"is to tame the dragon, that is, to turn a social problem into economic opportunity and economic benefit, into productive capacity, into human competence, into well-paid jobs, and into wealth".* As a statement of management's own 'job to be done', that could not be bettered. ■

ABOUT THE AUTHOR

Simon Caulkin is a writer and editor and for 16 years was management columnist of the Observer, a leading UK Sunday newspaper. He has contributed to the Economist, the Financial Times and many other national and international business magazines and newspapers. From 1986 to 1989 he was Editor of the UK business monthly Management Today.

1. 9th Global Peter Drucker Forum 2017 to be held in Vienna, Austria, on November 15, 16 and 17

This article was originally published in EFMD Global Focus, Volume 11 Issue 02, 2017 globalfocusmagazine.com

EPAs: good for Africa?

William Gumede is Associate Professor, School of Governance, University of the Witwatersrand, Johannesburg. His most recent book is *South Africa in BRICS: Salvation or Ruination* (Tafelberg)

Introduction

The European Union (EU) in 2000 agreed in principle with African, Caribbean and Pacific (ACP) countries, its former colonies, to establish new trade agreements with them, which became the Economic Partnership Agreements (EPAs). The EPAs negotiations followed changes in global trade rules, which was sparked by the Uruguay Round of trade negotiations, finalised in 1994, which required regional trade agreements to cut restrictive regulations and duties on 'substantially all the trade' among trading partners (GATT 1994).

The EPAs were meant to be WTO-compatible. The EPAs are not conventional free trade agreements, but also pledges development cooperation. The EU's EPAs with former African, Caribbean and Pacific colonies replaces preferential trade arrangements between the ACP states which operated for three decades prior. The EU negotiated with regional blocs within Africa. These African regional blocs were 'created' for the purposes of the EPAs by the EU. The African EPAs are only with sub-Saharan African countries and exclude North Africa.

In the European Partnership Agreement (EPA), African countries have to open their markets to EU products, in some cases up to 82.6%, and gradually eliminate tariffs over 5 to 25 years. The EU agreed to African countries protecting around 20% of domestic products. In return, African countries will have duty and quota free access for some African products to the EU market (EU Bulletin 2014).

EPAs negotiations have hurt EU-Africa relations

The EPAs negotiations have damaged EU-Africa relations. The EPAs negotiations have brought tension between the EU and African countries. It has also brought divisions between individual African countries, especially the demand by the EU that every country in the African region constructed by the EU for the EPAs, must sign the agreement, before it is ratified. This has caused divisions between African countries who agreed to sign and others who refused. For example, Tanzania last year refused to sign the EPAs causing tension in the East African Community, with the members, such as Rwanda, who agreed to sign.

The EU has punished or threatened to punish African countries who did not sign the EPA deal on the EU's terms (EU Parliament 2014). For example, Namibia initially refused to sign-up, but was forced to back down as the EU threatened to bar market access to Namibian beef, grapes and fresh fish annually worth €30 million. The European Commission declared through a delegated act that if Kenya did not ratify the EPA by October 2016, it will lose its tariff-free access to EU markets. Rwanda signed the EPAs because it desperately wanted to access EU development funding, which it would not have been able to tap into if it did not sign, causing tensions with the members of the EAC who did not sign (Esiara 2016).

In November last year, the Tanzanian parliament unanimously rejected the EPAs, saying it would deindustrialize the country.

Tanzania feared that signing the EPAs will undermine its own industrialisation plan with China. In July last year, Uganda President Yoweri Museveni said his country would not sign the EPAs because the EU had not adequately consulted with EAC governments. African countries have little recourse for trade, economic and political disputes with the EU, specifically regarding disputes over EPAs.

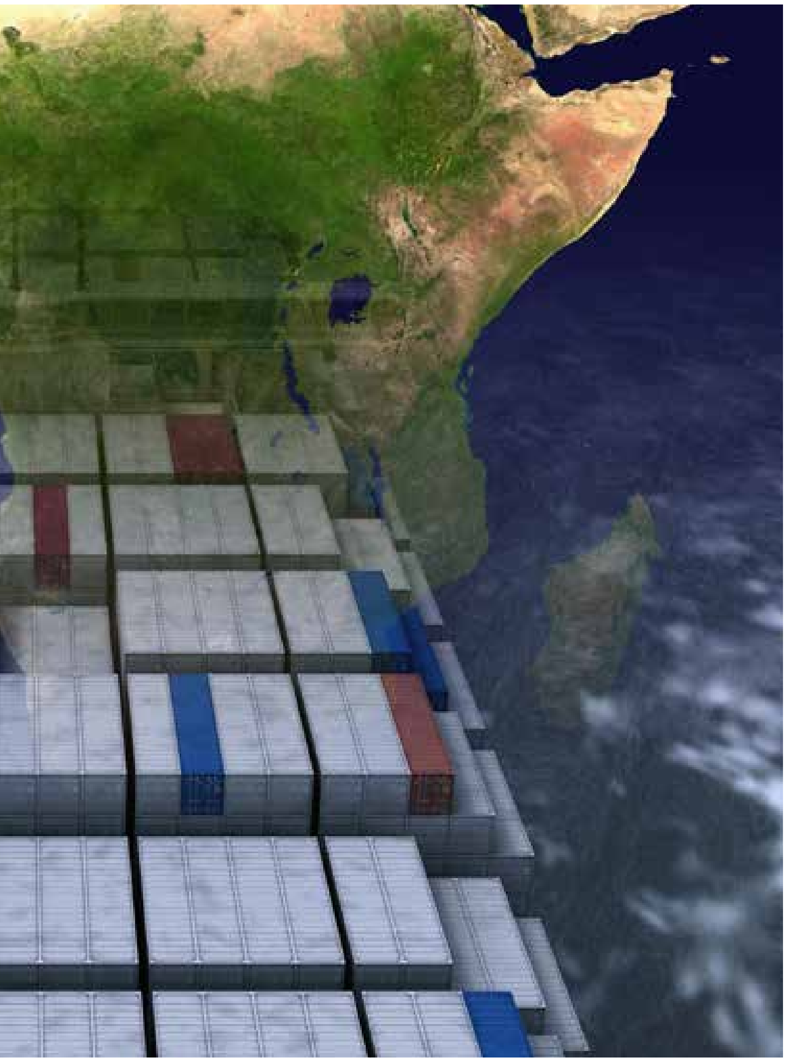
"The EU should allow African countries to strike competitive deals with other industrial and developing countries, such as China, Brazil and India"

The EU's EPAs threaten Africa's development

The United Nations' Andrew Mold said: *"The African countries cannot compete with an economy like Germany's. As a result, free trade and EU imports endanger existing industries, and future industries do not even materialise because they are exposed to competition from the EU"* (EU Bulletin 2014).

The EPAs threatens African farmers and infant industries, as EPAs promote EU products and services entering African markets without any quotas or duties. EPAs undermine African attempts to build local manufacturing capacities – as often heavily subsidized European products flood African economies. As a case in point, the EU's Sustainability Impact Assessment of EPAs warned: *"While liberalisation might encourage (consumers to buy products at affordable prices), it might also accelerate the collapse of the modern [sic] West African manufacturing sector"* (PWC & EU 2003).

African countries are heavily dependent on import taxes for revenue – often around 7-10% of revenue. A study by the Common Market for East and Southern Africa (2002), calculated that countries in the region could lost as much as 25% of trade tax income if EU products enter the region duty-free.



Import tariffs for raw materials such as oil are typically low in the EU but they increase dramatically with each stage of processing. The International Trade Union Council (ITUC) stated: *"As the market tariffs came down on African raw materials, they went up for manufactures (tariff escalation). Also, non-tariff barriers including unreasonable sanitary and phyto-sanitary measures replaced the tariffs. In addition, European exporters continued to benefit from huge levels of subsidies that enabled them to out-compete their African counterparts"* (ITUC 2016).

The EPA's also undermine Africa's attempts to pool their individual country markets, trading more with each other and to create a continent-wide free trade area from Cape to Cairo. This approach is integral to Africa's future prosperity. The EU's decision to create its own African regions to struck EPA deals with undermines Africa's own regional integration project.

The EPAs undermine African regional integration. In implementing EPAs, the EU has divided Africa into its own regions, completely undermining African efforts at integration. According to the EPAs, if an individual country default on any part of the EPA in its 'region', the EU has the power to act against all SADC countries. Yet SADC is expected to reach a consensus if there is a trade dispute with the EU.

The EPAs undermine Africa's efforts to diversify trading partners. The EPAs demand that African countries declare the EU as 'most favoured nation' whose products should not be subjected to higher levies than those of developing countries. In addition, EPAs demand that African countries extend all the benefits of any future trade agreements that an African country may enter into with other countries. This is seen by African countries as a way to prevent African countries from striking more competitive deals with new emerging economies such as India, Brazil and China.

What can the EU do?

The EU has been much more generous in its preferential trade agreements with Western Balkan countries. The EU for example had asked the WTO to continuing its preferential trade agreements with Western Balkan countries, which the EU argued that *"terminating the trade preferences would have a negative impact on the overall economic performance of the Western Balkans, with consequent negative repercussions on their domestic reform and transition processes. Moreover, given the current worldwide economic slowdown, the Western Balkans' economic recovery could be seriously jeopardized"* (WTO 2012). African countries should be given similar treatment by the EU.

Even with an EPA, African countries continue to face stringent rules-of-origin, tough sanitary and phyto-sanitary standards (SPS), and tariff-escalation on important (to Africa) value chains, whereby taxes increase the more processed or value-add products. African exporters also face highly subsidised EU producers. The EU must reverse these policies which undermine African development. The EU has insisted that its controversial agricultural subsidies should be discussed at the level of the WTO, and not the EPAs (Irumba 2014).

The EU needs to explore how best to support Africa produce value-add products and open-up EU markets to such value-added African products. If, for example, an African country wants to export a tree to an EU country, the trade barriers are relatively low.

However, if it turns the wood into a form that can be used to make furniture – which will create more jobs and increase economic growth for the African country, tariff barriers of up to 40 per cent come into force in the EU.

The EPAs contains rendezvous clauses, which are not part of the WTO trade provisions, but which demands protection for EU investments, no restriction to competition by heavily subsidized EU products, insistence that African governments give include EU companies as part of preferential procurement regimes, no minimum labour and environment rights, no African tax regimes which prevents tax avoidance schemes and higher than WTO levels of protection for EU intellectual property (EU Parliament 2014).

The EU should allow African countries to strike competitive deals with other industrial and developing countries, such as China, Brazil and India, without having to give the EU the same level of deals. The WTO, under its Enabling Clause (1979) allows for developing countries to offer preferential deals with peers, without having to extent the same treatment to developed countries.

Africans require the ‘policy space’ to make their own independent policies and decisions. The restrictiveness of the EPAs means that African countries will have difficulty coming up with their own national and evidence based development policies, appropriate to their own specific circumstances – because it may clash with provisions in the EPAs.

The EU has comprehensive laws allowing employees representation and to be consulted in the workplace. For example, the European Works Council Directive, which mandates large EU firms to have works councils, elected by employees who management should consult regularly on major issues affecting a company. EU companies must follow the same standards on employee involvement as prescribed by the EU when they invest in Africa. The EU must give African countries fair mechanisms to resolve disputes between the EU and African countries. ■

References

COMESA (2002) “Discussion Paper on Trade Policy Compatibility and Impact Assessment of Economic Partnership Agreements and Preliminary Adjustment Scenarios”, COMESA Secretariat, Lusaka, Zambia.

Kabona Esiara (2016) Rwanda eyes more exports, investment ties from EPA deal. The East African, July 16 (http://www.theeastafrican.co.ke/news/Rwanda-eyes-more-exports--investment-ties-from-EPA-deal/2558-3297404-m49uts/index.html)

European Commission (2017) Overview of Economic Partnership Agreements. April (http://trade.ec.europa.eu/doclib/docs/2009/september/tradoc_144912.pdf)

European Commission (2006). “Regional Negotiations of Economic Partnership Agreements,” Brussels. (http://ec.europa.eu/trade/issues/bilateral/regions/acp/regneg_en.htm).

European Commission (2005) ‘Economic Partnership Agreements — Putting a Rigorous Priority on Development’, memo, 20 January 2005. Brussels: European Commission. (www.europa-eu-un.org/articles/en/article_4245_en.htm).

European Commission (1996) “Green Paper on Relations between the European Union and the ACP countries on the Eve of the 21st Century,” Brussels

European Commission (1997) “Communication to the Council and the European Parliament: guidelines for the negotiation of new cooperation agreements with the African, Caribbean and Pacific (ACP) countries,” COM(97) 537 final, 29 October 1997, Brussels

European Parliament (2014) African, Caribbean and Pacific (ACP) countries’ position on Economic Partnership Agreements (EPAs). Study Commissioned by the European Parliament Committee on Development. Research conducted by Aileen Kwa, Peter Lunenborg and Wase Musonge, the South Centre, Geneva. (http://www.europarl.europa.eu/RegData/etudes/etudes/join/2014/433843/EXPO-DEVE_ET(2014)433843_EN.pdf)

European Union Bulletin (2014) EU-Africa Free Trade Deals ‘Destroy’ Development Policy. EU Bulletin, November 11, Brussels (http://eubulletin.com/3628-eu-africa-free-trade-deals-destroy-development-policy.html)

Tiago Faia (2012) Exporting Paradise? EU Development Policy towards Africa since the End of the Cold War. Cambridge Scholars Publishing, Newcastle upon Tyne.

General Agreement on Tariffs and Trade (1994). The Final Act Embodying the Results of the Uruguay Round of Multilateral Trade Negotiations, Geneva: GATT.

Nathan Irumba (n.a) Africa’s acute problems with the EPAs. (https://www.southcentre.int/question/africas-acute-problems-with-the-epas/)

PwC & EU (2003) Sustainability Impact Assessment (SIA) of Trade Negotiations of the EU–ACP Economic Partnership Agreement, Mid-Term Report Working Draft, 1 October. (http://trade.ec.europa.eu/doclib/docs/2005/february/tradoc_112363.pdf.)

WTO (2012) EU-Application of Autonomous Preferential Treatment to the Republic of Moldova, Report of the European Union under the Decision of 7 May 2008. WTO, WT/L/861, 10 July

WTO (1979) Decision of 28 November 1979 (L/4903). WTO, Geneva (https://www.wto.org/english/docs_e/legal_e/enabling1979_e.htm)

Revitalising connectivity through inland waterways

Bipul Chatterjee is Executive Director and Saurabh Kumar is a Policy Analyst at CUTS International

Introduction

A major concern about South Asia's economic development and its limited share in the global economy through trade and investment has been the lack of investment in infrastructure, including that of a regional nature. Lately the imperative of addressing such an infrastructure deficit has resulted in a boost in connectivity projects in the region, which have long-term geopolitical implications. For instance: the Bangladesh-Bhutan-India-Nepal Motor Vehicles Agreement (BBIN MVA) or the Bangladesh-China-India-Myanmar Economic Corridor (BCIM-EC).

A study by the Asian Development Bank (ADB) estimated that Asia as a whole needs US$8.4 trillion between 2016-2030 for the improvement and development of transport infrastructure *just* to maintain its current status of economic growth. South Asia alone will require 24 per cent of this share amounting to an investment worth 8.8 per cent of their gross domestic product[1].

Although India is yet to articulate a clear long-term official policy for regional connectivity initiatives, sub-regional connectivity through road, rail and inland/coastal waterways involving Bangladesh, Bhutan, India and Nepal presents a sustainable as well as economically viable case for it. It is the right moment for India to show that it can become a responsible partner in its neighbours' development.

These infrastructure projects present huge business opportunities for firms engaged in infrastructure development and offer opportunities for large-scale employment generation as well. This could immensely benefit India and its immediate neighbours suffering from inadequate infrastructure for their economic development. Apart from this, they will help smaller countries to get better access to the markets of large countries. To a large extent this will address the issue of under-utilisation of abundant natural resources of smaller countries in India's neighbourhood.

Connectivity through inland waterways

The South Asian region in general, and Bangladesh, Bhutan, India and Nepal in particular, have not yet been able to take full advantage of their historical and extensive network of naturally navigable waterways to meet their needs for goods and passenger movements.

This is despite the fact that India has inland waterways of around 14,544 km, while Bangladesh has 5,923 km of navigable inland waterways, and the mountain terrain of Nepal provide waters to some of the major rivers and river tributaries of these two countries.

These deficiencies in utilising existing natural advantages result in reduced economic returns. For example, the World Bank's Logistics Performance Index (LPI), a prominent benchmark to identify challenges and opportunities in trade-related activities which takes in to account six major indicators (customs, infrastructure, ease of arranging shipments, quality of logistics services, tracking and tracing, and timeliness) ranks Bangladesh as 87th, Bhutan as 135th, India 35th and Nepal 124th, which are much lower than many other developing countries such as Malaysia[2]. It was also estimated that a 10 per cent increase in overall infrastructure can produce an overall economic return of around 17 per cent in the long run[3].

Goods transported via inland waterways can be an environmentally friendly and cost-effective way of cargo

movements in this sub-region. For example, the comparative operating cost of freight in per tonne-kilometre (TKM) is 1.41 Indian Rupees by railways, 2.48 Indian Rupees by highways and 1.06 Indian Rupees by inland waterways transport. Transportation-related inter-modal connectivity (including inland waterways, road and railways) to the seaport can reduce shipping container costs by 20-50 per cent according to a study conducted in 2015 for this region[4].

"These infrastructure projects are a possible game changer for fostering cooperation in Eastern South Asia"

Nevertheless, the share of commercial goods transportation through inland waterways in overall internal cargo transportation is much less in this region, which is mainly in India (0.4 per cent of total cargo movements) in comparison to 8.7 per cent in China, 8 per cent in the USA, 42 per cent in the Netherlands[5].

A major hurdle in the development of this sector in India is that it is not organised. States such as Assam and West Bengal, who have fully functional waterways departments, are gaining from the use of waterways, but other large states such as Bihar and Uttar Pradesh, despite having large rivers and waterways, are left behind due to policy inertia vis-à-vis this sector and the non-existence of a separate waterways department.

However, in recent years there has been a significant growth in the cargo movements on National Waterways 1 (NW-1), which is on river Ganga. Cargo movements have gone up to 2.69 billion tonne-kilometres (BTKM) in 2015-16 in comparison to its 2009-10 level of 1.05 BTKM. It is also projected that by the year 2031-32 cargo movements from Varanasi terminal in Uttar Pradesh will be around 2.57 MT, while from Haldia terminal in West Bengal it is expected to reach 17.85 MT, which will include food and agricultural products, coal, fly ash, cement, fertilisers and building materials[6].

Although these figures show a good potential for the inland waterways sector within the country, when it comes to regional connectivity through inland waterways there is a much less than optimal picture about the cross-border movement of cargo. For example, inter-country cargo movement on Bangladesh-India routes as per their Protocol on Inland Water Transit and Trade (PIWT&T) by Indian vessels was 11,636 MT in 2016-17, in comparison to 1,051,262 MT of Bangladeshi vessels. (See Figure 1)

Not only this, transit cargo movement was only 352 MT by Indian vessels in comparison to 3,334 MT by Bangladeshi vessels in the same duration (see Figure 2). Indian vessels made only 17 trips but Bangladeshi vessels made 2,632 trips in 2016[7]. This clearly demonstrates reluctance in utilising the protocol routes to enhance regional connectivity through inland waterways.

Impact on sub-regional trade

These regional connectivity initiatives have two primary objectives:

- trade facilitation in the form of speedy visa and customs clearances, fewer documentations at border points and storage facilities at required places etc, and

- reduction in transportation cost so as to reduce overall trade costs.

Furthermore, in the long-run these initiatives also have the potential to expand into digital, currency and people to people connectivity. In other words, they will not only affect the volume of trade but can also make a significant change in its composition.

Figure 1. Inter-country cargo transported under PIWT&T routes

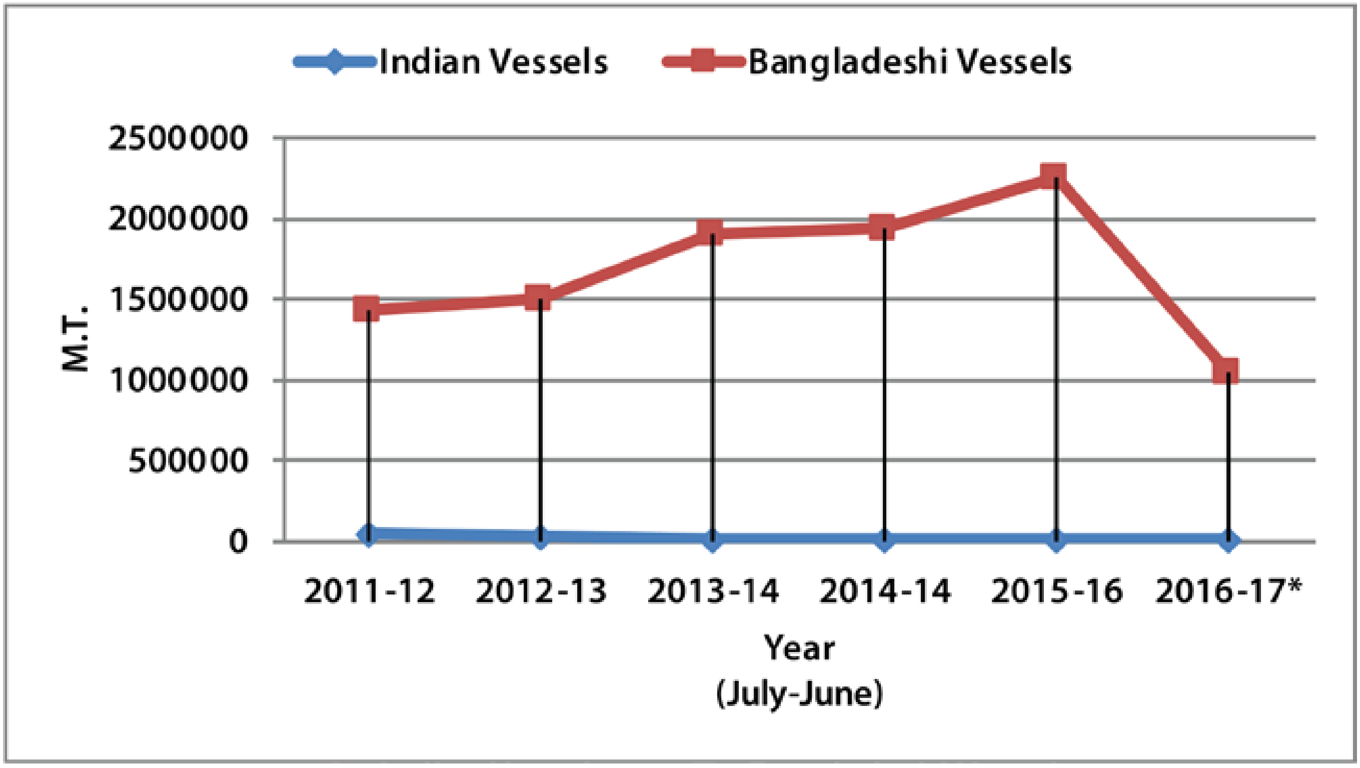
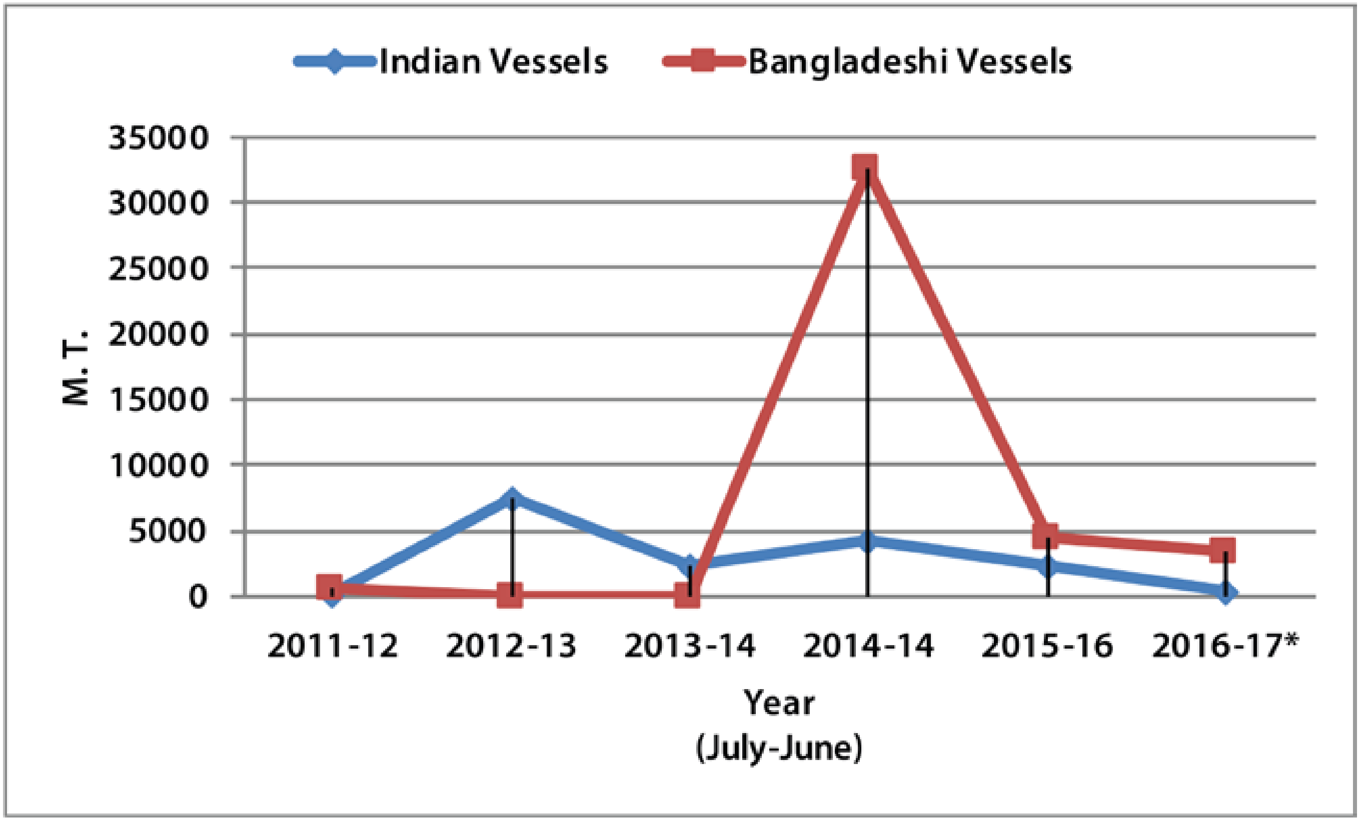


Figure 2. Transit cargo transported under PIWT&T routes



Source: Bangladesh Inland Water Transport Authority (2017), "BIWTA Statistics", http://www.biwta.gov.bd/site/page/e9b3ec96-b908-402f-bec8-e7171d927a9d/Statistics
*Note: *Data till December 2016*

Another major area where a tectonic shift in these regional connectivity initiatives will bring is existing trade routes. These will be in favour of new pathways instead of existing ones as those are already under severe stress and have become economically expensive.

Such a change in trade routes will also change the nature and pattern of current trade, probably a shift in favour of smaller countries such as Bhutan and Nepal, which, despite having large reserves of natural resources, are struggling to do trade due to sub-optimal nature of their connectivity options.

Therefore, new regional connectivity initiatives will have trade creation effects as prices for various products will go down after reduction in transport and transit costs. Apart from that, the demand for those products, which are used in infrastructure creation, will also go up.

Another major impact will be seen through an economic spill-over effect, which is generally not discussed while discussing the economic benefits of infrastructure investment and trade policy. Massive investment in connectivity projects will create more and better jobs leading to increasing income and demand for other products.

As far as impacts on big companies and micro, small and medium enterprises (MSME) are concerned, there can be contrasting results from these large-scale regional connectivity initiatives. Big companies engaged in construction business, logistics firms and export trading houses are likely to get more benefits as these initiatives can attract more opportunities in trade and investment.

In contrast, long-term results for the MSME sector can be negative as cheaper products from labour abundant countries may overflow in to smaller countries facing labour shortage.

Conclusions

In an era when trade deals are being renegotiated or are scraped (for example, North American Free Trade Agreement, Trans-Pacific Partnership), trade facilitation and regional connectivity initiatives offers a breath of fresh air to the global trading system.

Together these two can present a combination of policies that can reduce transaction costs and make procedures and standards more sufficient.

Therefore, the development of economically viable regional connectivity initiatives will, among other, require:

- harmonisation of standards and procedures (for example, compatible custom and visa rules; allocation of tax/ revenue, vehicle/vessel related regulations);
- construction and management of storage facilities and mechanised amenities for loading/unloading at terminals/ports and at border points;
- digital security and up-to-date state of the art technology-based transportation system; and
- ability to fight illegal trafficking through smart management of trade routes, etc.

While at a macro level it needs to be coordinated through inter-governmental panels/bodies representing the views of diverse stakeholders, there is the imperative of having a clear long-term operational strategy with analysis of costs, benefits and risks. Financing part of such initiatives also needs to be made more transparent and based on a participatory approach. Incremental multilateralism and involvement of international organisations will give credibility to these initiatives and would also lend easy access to the private sector.

Given the complex nature of these initiatives, policy approach should go beyond the contour of an individual project or mere focus only on one or another aspect of transportation and connectivity. Lessons should also be taken from other regional organizations and agreements for successful implementation of connectivity initiatives in this region. For example, Trans-European Transport Network (TEN-T) – a joint rail, road, water and air transport web within in the European system or the Amazon Cooperation Treaty Organization (ACTO) – an organisation for the sustainable development of the Amazon region. ■

Note: This article is based on the findings from CUTS International's project titled 'Expanding Tradable Benefits of Trans-boundary Water: Promoting Navigational Usage of Inland Waterways in Ganga and Brahmaputra Basins'. Views are personal.

1. Asian Development Bank (2017), "Meeting Asia's Infrastructure Needs", ADB: Manila
https://www.adb.org/sites/default/files/publication/227496/special-report-infrastructure.pdf
2. World Bank (2017), "LPI Global Ranking 2016"
https://lpi.worldbank.org/international/global
3. Swiss Re and IIF (2014), "Infrastructure Investing, It Matters" http://www.swissre.com/library/archive/246315951.html
4. Asian Development Bank and Asian Development Bank Institute (2015), "Connecting South Asia and Southeast Asia", ADBI: Tokyo
https://www.adb.org/sites/default/files/publication/159083/adbi-connecting-south-asia-southeast-asia.pdf
5. Government of India (2015), "Enactment of a Central Legislation for Declaring Identified Inland Waterways as National Waterways", Press Information Bureau, Government of India, 25 March 2015
http://pib.nic.in/newsite/PrintRelease.aspx?relid=117695
6. Inland Waterways Authority of India and RITES (2014), "Integrated National Inland Waterways Transportation Grid Study Report"
http://iwai.nic.in/index1.php?lang=1&level=3&sublinkid=1006&lid=933
Also see Inland Waterways Authority of India (2017), "Traffic- Cargo Movement" http://iwai.nic.in/showfile.php?lid=1039
7. Bangladesh Inland Water Transport Authority (2017), "BIWTA - Statistics"
http://www.biwta.gov.bd/site/page/e9b3ec96-b908-402f-bec8-e7171d927a9d/Statistics

Fraud on the rise

Can technology save us?

With the global cost of chargebacks mounting for consumers, banks and merchants alike, Alice Bonasio argues that we need innovation to fight back

Online fraud is now the most commonly experienced crime in England and Wales, according to a report published by the UK National Audit Office (NAO). Up to 1.9 million cyber-related fraud incidents were estimated to have taken place last year alone, with the cost likely to run into billions of pounds.

The report also outlined that the NAO faces a significant challenge in influencing partners, such as banks and law enforcement bodies, to take on the responsibility of preventing and reducing fraud. As a *"low-value but high-volume crime"*, fraud is often overlooked by governments, law enforcement, and industry alike, says Amyas Morse, Head of the NAO. Acknowledging that the landscape for tackling online fraud is extremely complex, the report calls for an urgent response to address it.

The report further cites that online fraud is under-reported; even where data is available there is a lack in the sharing of information between government, industry, and law enforcement agencies. In fact, there is no formal requirement for banks to report fraud or share reports with government, yet we see consistent evidence of fraud recurring all over the world. This is an enduring and global problem, one that takes a heavy toll on merchants and service providers of all sizes, as well as banks, issuers, and ultimately customers.

The growing scale of online fraud also suggests that many people are still not aware of the risks, and that there is much to be done to change behaviour. This is also evidenced in separate figures[1] from Citizens Advice showing a 17% rise in consumers being caught out buying 'phantom' goods online. This type of cybercrime occurs when fraudsters advertise items at cut prices on social media sites like Facebook and Instagram—as well as online marketplaces such as Gumtree and eBay—and con buyers into spending on average £1,100 on products ranging from cars to flights and even insurance, which simply do not exist. In only a few months, January to March this year, Citizens Advice logged over 3,600 complaints about such phantom goods.

These scams can have a lasting financial and emotional impact on consumer confidence and their relationship to merchants. While educating consumers is both sensible and necessary, the NAO report stresses that government and industry still have a responsibility to protect citizens and businesses. The report also found that the protection banks provide varies, with some investing more than others in educating customers and improving their anti-fraud technology.

Given that organized attacks[2] of online fraud is likely to increase, this investment is absolutely essential—yet keeping up with the latest techniques employed by fraudsters can put tremendous strain on a company's logistics. While few would argue that fraud detection and prevention is a priority for businesses, the fact is most businesses lack the necessary resources to build and maintain such solutions. It is the industry's responsibility, however, to keep up—and ideally get ahead—of these fraudsters in order to protect both themselves and consumers.

The adoption of such technologies has indeed been shown to have a significant positive impact on fraud prevention. Take, for example, EMV[3]—the technical standard for smart payment cards and terminals that have allowed the rollout of payment solutions, such as Chip and Pin and Contactless. In the UK, its implementation led to a dramatic reduction of 32% in the levels of overall card fraud[4] in the seven years following their introduction in 2004, according to official figures[5] from the UK Card Association.

Such measures have undoubtedly made fraud much more difficult to perpetrate in 'card present' payment scenarios, yet the shift to online retail has brought with it an entirely new set of challenges relating to fraud prevention and mitigation. There is no getting away from the fact that individual shopping habits have fundamentally changed over the past decade, and that the shift towards online and mobile shopping is not going to be reversed. PricewaterhouseCoopers' (PwC) *Total Retail 2016 Survey*[6] found that the popularity of mobile shopping continues to rise, stating that *"46% of our global sample buys products via mobile at least a few times a year, compared to 40% last year".*

While this might be good news for consumers in terms of better prices, more choice, and added convenience, it leaves the bulk of 'card-not-present' transactions—which are the norm in online shopping and vulnerable to problems such as chargebacks. These chargebacks happen when customers dispute a transaction in their statement and request a refund—often going directly to their card issuer or bank and bypassing the merchant altogether.

According to *The Nilson Report*[7], gross card fraud losses for 2015 reached $21.84 billion, not including the costs incurred by issuers, merchants, and acquirers for their operations, call centres, and chargeback management. By 2020, the report concludes, card fraud worldwide is expected to reach $31.67 billion, and that measures such as improving methods of reducing fraud on card-not-present transactions are critical to keeping those losses in check.

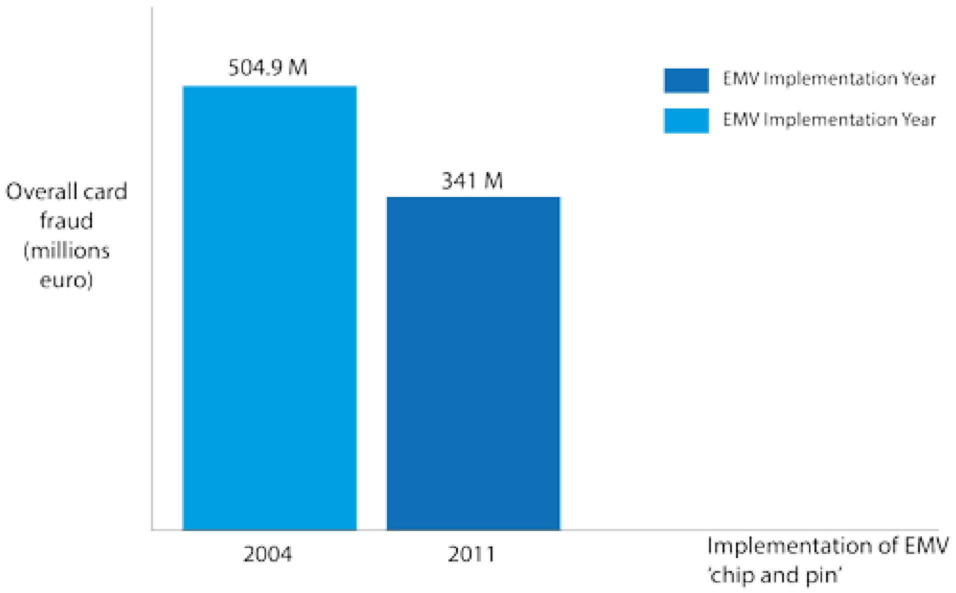
This is a complex issue, since there are many factors which can trigger a chargeback in the first place, and a blunt approach can cause a merchant more harm than good. One of these factors is known as 'buyer's remorse'—where a customer finds a product at a cheaper price elsewhere and uses the system as an alternative returns and refund mechanism. This is one of the forms that so-called 'friendly fraud' takes[8].

Another common scenario is where a person requesting the refund is not entirely sure they haven't made the transaction, but will 'try their luck' anyway. Since the cost of investigating such claims is often much higher than the value of the refund itself, banks will mostly opt to issue the refund without dispute, and some customers have learned to take advantage of this to manipulate the system. According to industry research firm Aite Group[9] in their *Impact Note* of August 2016, 60% to 70% of chargebacks are the result of first-party or friendly fraud.

Business can minimise vulnerability to chargebacks in various ways. These include ensuring that they build a good relationship with their customers, by providing accurate product information and keeping the lines of communication open, so customers are more inclined to approach merchants with queries than to go directly to the issuing banks to initiate a dispute. Having a clear and efficient refunds policy also minimises the chance of experiencing so-called buyer's remorse, where a customer is tempted to use chargebacks as a backup refund mechanism. However, many customers still get confused when seeing an unfamiliar name appear on their statement, as often merchants will be listed under names which differ significantly from their brand or trade name.

"When a customer sees a charge they don't immediately recognise on their card, they often ask the bank to remove that charge from their statement", explains Matthew Katz, CEO of Verifi[10], a provider of end-to-end payment protection and management solutions. *"This is done by calling the bank directly to raise a dispute, leaving out the merchant who could potentially provide further information to clarify what the charge relates to. In fact, our research has found that up to 86% of cardholders*

Figure 1. EMV implementation has reduced card fraud



bypass the merchant and contact their issuing bank directly to dispute or question a charge on their bill".

While banks generally issue a refund to the customers, the process often has a very negative impact on overall customer experience, causing confusion and lingering trust issues which can lead to future sales being lost. This has an added impact on the merchant's bottom line, on top of the fees, fines, and operational expenses of handling the chargeback in the first place.

These costs quickly snowball, ranging from administrative resources needed to investigate claims and process refunds, to fielding customer queries and potential loss of legitimate sales, present and future. Add this to the operational expense of preparing and shipping merchandise, as well as the value of the goods themselves which often must be written off, and the cost for merchants quickly adds up. Ultimately, this is also very bad news for consumers, as these costs will eventually trickle down the supply chain and translate into higher prices. The true price of these chargebacks is not reflected in the refund amounts alone, significant as these may be. In their September 2015 report, *The Impact of Fraud and Chargeback Management on Operations*, Javelin Research[11] found that organizations typically spent between 13% and 20% of their operational budget on fraud and chargeback management.

"Globally, chargebacks continue to grow and represent a significant challenge", agrees Katz, *"To address this problem, we need solutions that better align the interests of cardholders, merchants, and issuing banks on a global scale, focusing on continual innovation and refinements that are essential to effectively combat this problem"*, he believes.

This is what Cardholder Dispute Resolution Network[12] (CDRN) does, according to Katz. Verifi's solution—which covers approximately 50% of the US market and boasts a 90% resolution rate—was named for the fifth year in a row as 'Best Chargeback Management Program'[13] by CNP Expo. It is now continuing to expand in international markets such as the United Kingdom, Verifi having opened an office in London in 2016, and now announcing a key strategic partnership[14] with payments processor MegaCharge.

"By 2020... card fraud worldwide is expected to reach \$31.67 billion"

One of the problems that CDRN addresses, according to Katz, is the fact that by the time merchants learn of the issue, it's often too late to stop the chargeback. *"Our patented closed-loop technology integrates directly with the top issuing banks. This pauses the chargeback process for up to 72 hours and redirects cardholder disputes from the bank to the merchant in near real-time. The merchant will have more time to assess and resolve the dispute before it ever becomes a chargeback[15]. To date, we are supporting more than 25,000 accounts globally and handling over 200,000 individual chargebacks each month—amounting to an estimated \$195 million in chargebacks prevented.*

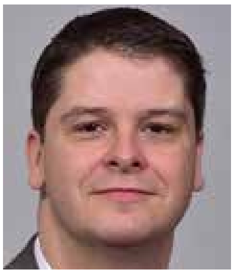
"The problem of chargebacks and friendly fraud are not only impacting businesses' bottom line, but hindering future growth and jeopardizing customer retention, trust, and satisfaction rates. For merchants to strengthen their risk management and counter friendly fraud, the ideal line of defense would permit merchants to provide insights into the cardholder's order as shopping cart-level data. This would feature merchant details and even the device used to make the purchase through the financial institution's platform—all at the time the dispute arises. This deeper level of data can help cardholders better understand their purchases and avoid filing false cases of fraud that result in lost sales, higher labour costs and more", Katz concludes.

Since the bulk of consumer purchases will be made online, it stands to reason that to tackle online fraud we must leverage data and technology in increasingly sophisticated ways. As the recent reports on the growing scale of this global problem show, gone are the days when the tools to do so could be considered an optional extra. They have, quite simply, become business essentials for every merchant looking to conduct business in the digital age. ■

ABOUT THE AUTHOR

Alice Bonasio is a Writer, Academic and Strategic Consultant specialising in Technology and the Creative Industries

1. *https://www.citizensadvice.org.uk/about-us/how-citizens-advice-works/media/press-releases/shoppers-swindled-after-buying-phantom-goods/*
2. *https://blog.riskified.com/global-ecommerce-fraud-trends-2017/*
3. *http://www.emvco.com/about/overview/*
4. *https://www.wired.com/2014/09/emv/*
5. *http://www.theukcardsassociation.org.uk/wm_documents/Fraud_The_Facts_2012.pdf*
6. *http://www.pwc.com/gx/en/industries/retail-consumer/total-retail/total-retail-key-findings.html*
7. *https://www.nilsonreport.com/upload/content_promo/The_Nilson_Report_10-17-2016.pdf*
8. *http://www.verifi.com/kb/what-is-friendly-fraud/*
9. *http://aitegroup.com/*
10. *http://www.verifi.com/*
11. *https://www.javelinstrategy.com/*
12. *http://www.verifi.com/prevent-chargebacks/*
13. *https://globenewswire.com/news-release/2017/06/08/1010456/0/en/Verifi-Named-Best-Chargeback-Management-Program-for-Fifth-Year-in-a-Row-at-CNP-s-Card-Not-Present-Expo.html*
14. *https://globenewswire.com/news-release/2017/06/07/1009192/0/en/Verifi-MegaCharge-Forge-Strategic-Partnership-to-Combat-Global-Chargeback-Challenges.html*
15. *http://www.verifi.com/resources/cdrn-merchant-portal-resolves-disputes-before-they-become-chargebacks/*



Delivering effective 21st century trademarking

Rob Davey is a Senior Director at CompuMark, a brand of Clarivate Analytics

Trademarking has always been an important point of consideration for brands, but it is more vital than ever today. With an incredible number of brands across all kinds of industries vying to make a name for themselves, intellectual property (IP) professionals must be able to work faster and more effectively in searching, clearing and registering the relevant trademarks for their clients.

In order to meet this challenge in today's landscape, however, human trademark experts must work together with advanced technology solutions, many of which are driven by artificial intelligence (AI). AI has already proved its worth in other industries, but it holds particular value in the legal sphere; according to Thomson Reuters[1], *"the next few years will likely favour lawyers who can use partial states of automation to outperform their peers."*

Even more recently, Thomson Reuters described AI[2] as one of the top three emerging trends in 2017, saying *"the advancement of machine learning and other techniques in artificial intelligence are giving businesses and their development teams the opportunities to design data-driven applications that can recognize patterns to become sufficiently 'cognitive' to reduce and even automate repetitive manual work."*

When implemented in the right way, AI has so much to offer the trademark industry. It can be used to automate complex cognitive tasks and increase the effectiveness of search and watch results, while also dramatically improving overall speed and efficiency. However, while many have tried to reap the rewards of AI, only a few have managed to combine it effectively with human expertise for the very best results.

Human and machine intelligence at work

This is where the majority of trademark specialists have room to improve. Of course, AI technology on its own has a role to play in improving operations, but its full benefits cannot be fully enjoyed without it being used alongside human experts that can offer their own unique perspective on things. Researching trademarks is about getting all of the details right, which is why solutions providers must have years of experience and specialised knowledge that goes beyond technology.

To achieve this necessary knowledge, the best providers will work closely with the industry's most experienced trademark analysts and linguists to learn what they do, why they are doing something in a particular way and why they choose certain results over others, for example. After collaborating

this closely over a long period of time, businesses can begin to really think like trademark analysts.

One of the commonly-used variations of AI in trademarking is what's known as neural network technology. It has been employed for years by the most forward-thinking trademark specialists, mostly for trademark watching solutions, and is designed to work in much the same way as the human brain works, determining and creating connections among related concepts. The neural network technology being used is 'trained' using vast amounts of specifically pre-processed trademark data to accurately perform semantic equivalence, which then determines the 'relatedness' of words, helping providers make even more accurate decisions.

More recently, providers have been using AI to deliver self-service clearance solutions that make it easier to help clients looking to trademark brand names, while sophisticated image recognition technology can simplify the process for those registering slogans and logos.

These solutions employ neural networks and other AI technologies to automate and accelerate complex trademark search and analysis processes. Deep learning techniques are also often used to identify semantically related terms, while helps to further improve recall to minimize the risk of missing relevant marks. These kind of advanced processing technologies can deliver thorough results in just seconds.

Considering how advanced these AI-enabled solutions are, it could theoretically be fairly simple for these to take the place of human analysts, but relying on technology on its own will likely lead to issues down the road. Instead, these technological systems must complement trademark experts instead of replacing them.

The value of experience

Simply put, the best human analysts possess a wealth of experience that allows them to make the kind of nuanced judgements that machines cannot. They also have deep, developed relationships with customers that gives them a clear understanding of their requirements — something that currently cannot be matched by technology.

This means they have the ability to look at search or watch results and rank them in a way that's most meaningful to the customer, which is far more difficult than it might sound at first due to the number of factors that play a part in determining what makes a mark relevant to that customer.

No matter how sophisticated an AI-enabled technology might be, it is of no use without accurate and reliable data behind it, and this is always best delivered by humans. The best trademark solutions providers will have a dedicated team of quality analysts whose responsibility it is to review and correct data from the trademark offices before adding it all to their own proprietary trademark database. This work involves reviewing hundreds of trademark records daily and finding errors such as a word mark that doesn't match the image — the kind of critical error that could be missed by an online searching tool.

"No matter how sophisticated an AI-enabled technology might be, it is of no use without accurate and reliable data behind it, and this is always best delivered by humans"

Human analysts are also able to work with a level of proactivity that cannot be achieved through current AI technology. For example, a quality analyst would enhance the records to help ensure the relevant results are not missed, perhaps by looking at a multi-word mark or slogan and attaching strength to the most important parts of that mark. Once this is done, AI-enabled technology can be used to display all relevant results in a format that makes sense — a perfect marriage of human experience and technological sophistication.

Advanced in future technology

By now we have a clear idea of how human analysts will remain a vital part of the trademark landscape for years to come, but what's looming over the horizon in terms of future technological innovations?

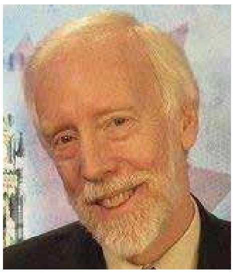
Most importantly, next-generation trademark watching solution will deliver even greater speed and precision than that available today. Using AI to further refine semantics, the goal will be to catch even more relevant, targeted results in a bid to reduce risk and save trademark professionals valuable time — something that is important to any and every business.

Some providers are continuing their tireless work to bring AI technology towards an even more sophisticated and human level. Some are working on machines that can observe how a customer works and automatically fine-tune the findings to deliver results according to the unique needs of that customer, providing targeted insights that helps IP practitioners work even more efficiently.

Conclusion

The real-world needs of trademark professionals will always be the primary driving force behind any technological innovations in this industry. The potential of technology to make it easier for experts to digest massive amounts of information and make right decisions in fast-paced scenarios is extraordinary, but only if developed and implemented correctly. ■

1. *https://blogs.thomsonreuters.com/answerson/artificial-intelligence-legal-practice%5d/*
2. *https://blogs.thomsonreuters.com/answerson/the-top-three-emerging-tech-trends-in-2017/*



Al Gore's claims to climate truth make no sense: no one knows the future of climate change

Tom Harris is executive director of the Ottawa, Canada-based International Climate Science Coalition[1]

The central premise of former US Vice President Al Gore's climate change films is impossible. Not merely wrong or exaggerated, as many of his opponents claim, but, literally, impossible.

Gore is supposedly telling us 'truth' about climate science. After all, his 2006 movie was entitled *An Inconvenient Truth*. And his film released in August of this year is called, *An Inconvenient Sequel: Truth to Power*.

But Gore does not really know the truth about the causes and consequences of climate change. Indeed no one does, not even the world's leading experts.

This is not just because the science is enormously complicated. It is also because scientific hypotheses, and even scientific theories, are not absolute truth; they can be, and often are, wrong. Science 'facts' are merely the current opinions of experts and, especially in the case of climate change, different experts often have very different points of view.

Voltaire once said, *"If you wish to converse with me, define your terms."* He understood how definitions direct and limit debates and ultimately control outcomes. So, we should start by clarifying what we mean by truth.

Plato defined truth as something that is *universal*, *necessary*, and *certain*. In the climate change case, this is easy to remember: universal, necessary, and certain or UNC, which could stand for 'United Nations Climate.'

Truth is universal in the sense that it applies everywhere. Whether you are in Athens, Sparta or on another planet, it is true. It also applies 'everywhen,' now, in five minutes or in a billion years.

Truth is also necessary. It must be the way it is; there is no other explanation possible. It is unequivocal.

And truth is certain. It is not a matter of probability. It is in the bank.

Truth applies to things like mathematics or chess in which we write the rules. Two plus two equals four. That is true. The Queen can move vertically, horizontally or diagonally in a straight line around the chess board, as long as no pieces are obscuring her path. That is true.

But truth never applies to our findings about nature, which are educated *opinions* based on scientists' interpretations of observations. And philosophers since ancient times have recognized that observations cannot prove anything to be true. In contrast to being universal, necessary, and certain, empirical evidence is *particular, contingent, and has some degree of probability*. So, contrary to the confident pronouncements of climate activists, observational evidence cannot be used to prove truth. Not only are our methods of observing imperfect but we all have biases that affect how we interpret what we see.

This is not a new idea. In the 17th century, English philosopher Sir Francis Bacon identified what he called four *"Idols of the Mind,"* ways in which our thinking is misled by inherent traits and social influences.

First, Bacon had the *"Idols of the Tribe,"* a bias that affects everyone. This concerns our natural tendency to put more importance on positive evidence—observations that support our point of view—than on negative evidence. We also tend to look for attractive patterns in our experience, patterns that are not necessarily consistent, significant or even real.

A good example in the climate change case is the conclusion that, because there is a correlation between increasing carbon dioxide (CO_2) and increasing temperature in some time intervals, this supposedly proves that CO_2 rise causes temperature rise. That the correlation does not apply in other time intervals is considered inconsequential by the true believer in man-made climate change.

Next, Bacon spoke about the *"Idols of the Cave,"* specific biases that affect each of us as individuals due to our personalities, likes, and dislikes. For example, some people are convinced that industrialization is bad, so, in support of this personal hobbyhorse, they frequently see evidence that industrialization causes serious problems, even if the significance of this evidence is questionable. That the problems may have entirely different causes is often overlooked by people who are overly influenced by the Idols of the Cave.

Similarly, people who are dedicated to some specific branch of learning may also fall prey to the Idols of the Cave to the extent that they interpret much of what they see in the light of their own field only. Like the chemist who sees chemistry in all things, the expert who focusses on human causes of climate change may see human causation even in environmental changes other experts regard as natural.

Bacon also identified the *"Idols of the Marketplace,"* prejudices that come through social interactions, particularly those that are mediated through the use of language that is equivocal. Such ambiguities result in people talking past each other since they do not really understand their opponents and may use the same terms for quite different ideas.

For instance, activists and the UN are often criticized for saying 'climate change is real,' as this statement seems so self-evident as to be useless. Climate has been changing since the origin of the atmosphere and it will continue to do so no matter what we do. So, of course, climate change is real, critics say; so is sunrise and gravity. This does not mean humanity causes them.

But the United Nations Framework Convention on Climate Change defines the term 'climate change' to *mean "a change of climate which is attributed directly or indirectly to human activity that alters the composition of the global atmosphere and which is in addition to natural climate variability observed over considerable time periods."*

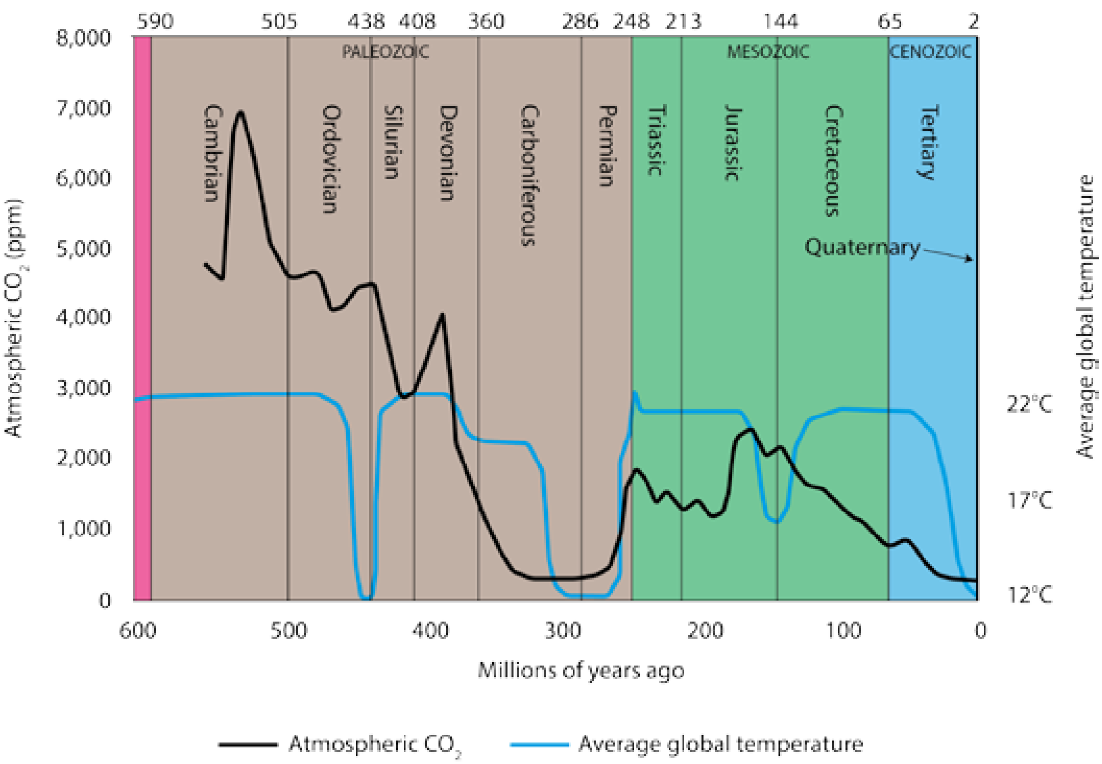
"It's time to open up the debate about climate change, one of the most complex and costly issues of our age"

So, to the promoters of the hypothesis of man-made climate change, 'climate change is real' is indeed meaningful. Such confusion in the use of language is one of the reasons discussions between people of differing positions on climate change often degenerate into angry arguments that accomplish nothing.

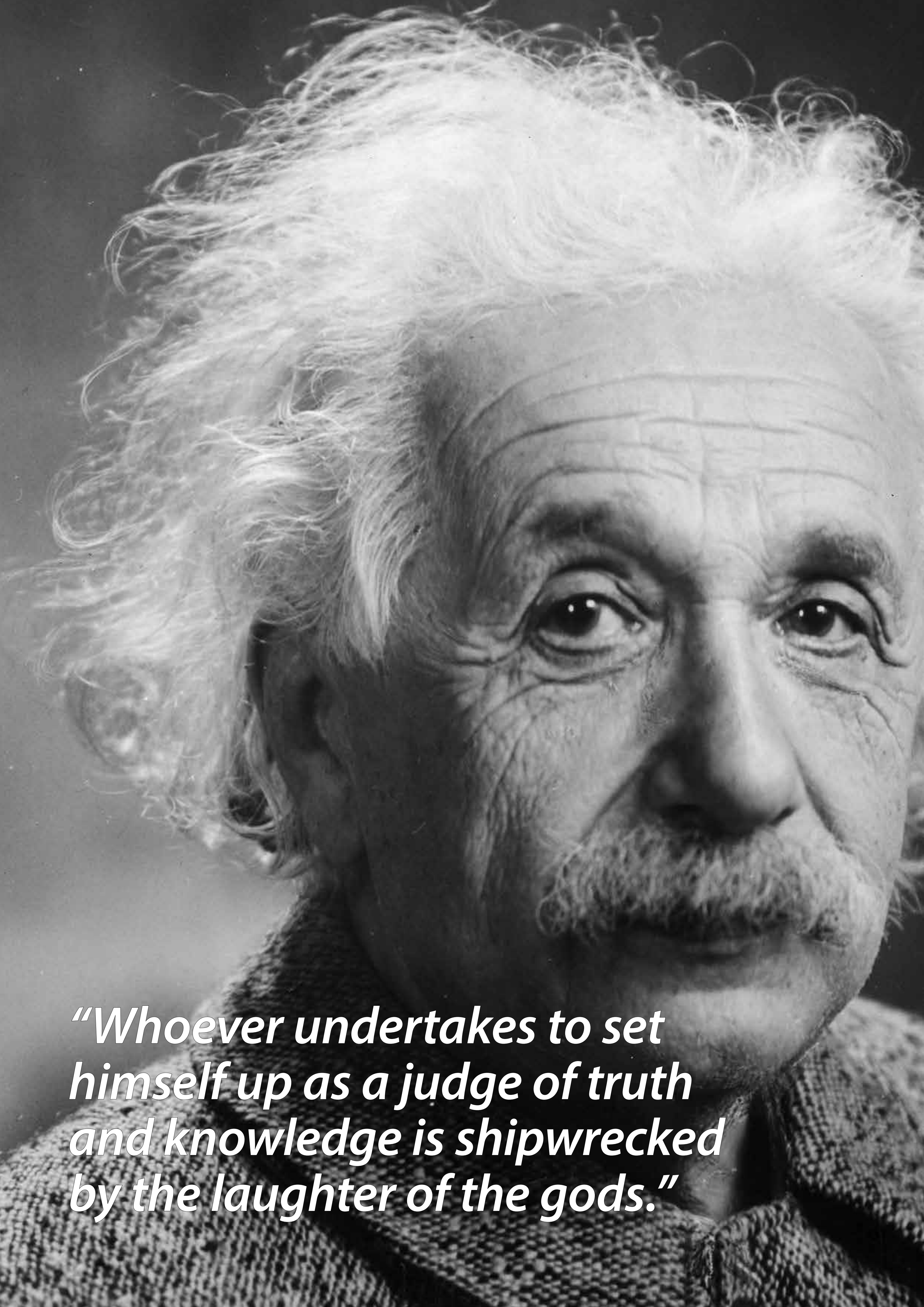
Finally, Bacon identified the *"Idols of the Theatre,"* a tendency of people to think erroneously because of what they were taught in school. This is very prominent in the case of climate change science. Most high school, college, and university climate change courses start from a premise that science proves that human industrial activity is the primary cause of the past century's warming and that catastrophe lies ahead if we do not change our ways.

Graduates from these institutions are therefore strongly conditioned to accept academic dogma about climate change

Figure 1. Past temperatures and carbon dioxide levels show no consistent correlation in deep geologic time



Late Carboniferous to Early Permian time (315-270 million years ago) is the only time period in the last 600 million years when both atmospheric CO_2 and temperatures were as low as they are today
Temperature after CR Scotese http://www.scotese.com/climate.htm
CO_2 after RA Berner, 2001 (GEOCARB III)


"Whoever undertakes to set himself up as a judge of truth and knowledge is shipwrecked by the laughter of the gods."

and not ask the questions that need to be asked if we are to come to a balanced understanding of the issue.

Al Gore is not alone in making a serious mistake about climate 'truths.' Climate activists often present their opinions as truth based on settled science. In fact, the United Nations leads the way in this mistake, often labeling its science conclusions 'unequivocal,' in other words, statements that cannot be wrong.

For example, the Intergovernmental Panel on Climate Change *Fourth Assessment Report Synthesis Report*, one of the most important climate change documents of the United Nations, starts[2], *"Warming of the climate system is unequivocal, as is now evident from observations of increases in global average air and ocean temperatures, widespread melting of snow and ice and rising global average sea level."*

Besides the fact that it is a mistake to refer to *"global average air and ocean temperatures…and global average sea level"* as *"observations"* (they are the results of statistical manipulations of thousands of observations in different places and at different times), the UN statement makes no sense philosophically.

Although he supports the dangerous human-caused global warming hypothesis, Lehigh University philosophy professor Steven Goldman explained in a personal communication that the IPCC statement is flawed. It is *"an attempt to persuade extra-logically,"* said Goldman. *"Strictly logically, no observations can lead to an 'unequivocal' interpretation."*

David Wojick, a Virginia-based Ph.D. in the logic and philosophy of science, disagrees with Goldman about the climatic impact of human activity but agrees that the IPCC made a serious mistake in the Synthesis Report. *"Reasoning from evidence is inductive logic,"* said Wojick. *"As for unequivocal, that is never the case in inductive logic."*

Yet, in speaking about the IPCC *Fifth Assessment Report*, Working Group I co-chair Dr Thomas Stocker asserted[3] essentially the same again. *"Warming in the climate system is unequivocal,"* said Stocker. Canadian historical climatologist Dr Tim Ball calls Stocker's statement *"nonsense."*

So why do more philosophers not speak out about these problems, errors that are diverting the public from properly considering the arguments presented?

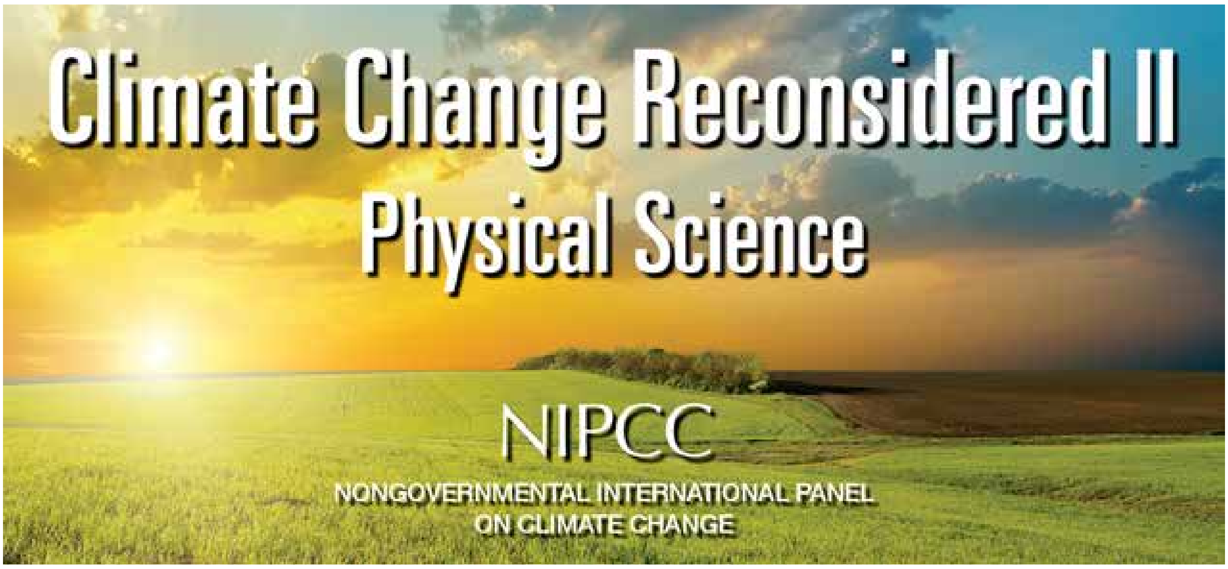
It may be that academics judge that acceptance of climate concerns will encourage pollution reduction, alternative energy development, conservation, increased foreign aid, and social justice, things many regard as beneficial. So they keep their opinions to themselves rather than risk impeding progressive policies.

It may also be due to the fact that the overwhelming majority of philosophy professors are politically left of center and 'stopping climate change' is a cause liberals are expected to support.

But, traditionally, liberals have usually supported skepticism and relativism. Indeed, it was the German Left who promoted Albert Einstein's Relativity and the Right who opposed it, believing (in hindsight, correctly) that it threatened their world view.

But this approach has been turned upside down in the global warming debate. While many conservatives promote open discussion about the causes of climate change, most of the Left consider this unacceptable. Like an excerpt out of George Orwell's novel *Nineteen Eighty-Four*, sponsors of the California Climate Science Truth and Accountability Act of 2016 even wanted some kinds of climate change skepticism made into a criminal offense.

Similarly, in December 2015, activists in Canada attempted to use the federal Competition Act to curtail three groups—Friends of Science Society (Calgary), International Climate Science Coalition (Ottawa), and The Heartland Institute



(Illinois)—from presenting what the complainants considered *"materially false or misleading representations about climate science for the purpose of promoting business interests."*

After more than a year of investigation, the Canadian federal government discontinued their inquiry[4]. Ecojustice complained[5], *"Now is the time we need our cops on the climate beat to be stepping up. The Competition Bureau took an encouraging first step but did not follow through."*

Use of official bodies to enforce one perspective or another in science is a slippery slope. Indeed, such an approach has impeded human progress throughout history. For example, when the Greco-Egyptian writer Claudius Ptolemy proposed his Earth-centered system, he did not say it was physical astronomy, a *true* description of how the universe actually worked. He promoted it as mathematical astronomy, a model that worked well for astrology, astronomical observations, and creating calendars.

It was the ultra-conservative Catholic Church that, relying on a literal interpretation of the *Bible*, promoted the Ptolemaic system as truth to be questioned at one's peril. This was why Nicolaus Copernicus, a Canon in the Church, waited until he was on his death bed before he allowed his revolutionary book showing the Sun to be the center of the universe to be published, even though the text was completed 30 years earlier.

This is also why Galileo ran into so much trouble when he claimed that the Church was wrong and that Copernicanism was the truth, a position that Galileo could not really know either. The Church eventually banned Copernicus' book and it remained on the list of prohibited books for over two centuries.

Similarly, the assumed, unquestionable truth of Sir Isaac Newton's laws eventually acted to slow the advancement of science until Einstein showed that there were important exceptions to the laws. When authorities preach truth about science, progress stops.

The greatest misinformation in the global warming debate is that we currently know, or, perhaps, even can know, the future of a natural phenomenon as complicated as climate change. University of Western Ontario professor Dr Chris Essex, an expert in climate models, lays it out clearly:

> *"Climate is one of the most challenging open problems in modern science. Some knowledgeable scientists believe that the climate problem can never be solved."*

Regardless, as demonstrated by thousands of peer-reviewed papers in leading science journals highlighted by the Nongovernmental International Panel on Climate Change[6], there is a broad range of scientific opinion on this issue. Indeed, much of what we thought we knew about climate is now regarded as wrong or highly debatable.

Albert Einstein once said, *"Whoever undertakes to set himself up as a judge of truth and knowledge is shipwrecked by the laughter of the gods."* It might be humorous to the gods, but the belief that we know the truth about climate change has resulted in at least one billion US dollars a day being spent on climate change mitigation. Imagine what could done with a billion more dollars a day dedicated to education, health care, cleaning up our rivers, or adapting to the inevitable natural environmental changes that lay ahead.

It's time to open up the debate about climate change, one of the most complex and costly issues of our age. ■

1. *http://www.climatescienceinternational.org/*
2. *https://www.ipcc.ch/pdf/assessment-report/ar4/syr/ar4_syr_full_report.pdf*
3. *http://theconversation.com/global-warming-unequivocal-and-unprecedented-ipcc-18711*
4. *https://www.ecojustice.ca/wp-content/uploads/2017/08/2017-06-29-Ltr-from-Comp-Bureau-re-Inquiry-discontinued.pdf*
5. *https://www.ecojustice.ca/competition-bureau-drops-climate-denier-investigation/*
6. *http://www.climatechangereconsidered.org/*

| ONE TEAM |

| ONE MISSION |

| ONE VISION |

Enhancing aviation safety through regulatory excellence

Unit 2 Cayman Grand Harbour
Civil Aviation Authority of the Cayman Islands
PO Box 10277
Grand Cayman, KY1-1003
Cayman Islands

CIVIL AVIATION AUTHORITY
OF THE CAYMAN ISLANDS

Tel: +1 345 949 7811 | Fax: +1 345 949 0761 | Email: civil.aviation@caacayman.com | Web: www.caacayman.com

World class aviation services

The Cayman Maritime & Aviation Services Park will create the largest transportation services group in the region, the CAACI writes

The Cayman Islands Government has recently granted legislation allowing the addition of offshore aviation services to the Cayman Enterprise City (CEC) special economic zone. Aviation services joins the maritime sector within CEC to create the Cayman Maritime & Aviation Services Park (CMASP). It is envisioned that CMASP will create the largest transportation services group in the region, which will attract international maritime and aviation service businesses to set up a physical presence in the islands.

This expansion, the CMASP, can now include aircraft owners and brokers, technology companies and startups focused on aviation research and development, aircraft manufacturing and repair businesses, head offices of aviation industry businesses, businesses that provide management consultancy and any other specialized services relating to the aviation industry.

The CEC Special Economic Zone consists of six business parks each complimenting the other to create a dynamic and innovative environment based on the best special economic zones in the world. The addition of the aviation park is expected to be instrumental in further diversifying Cayman's economy and will assist to grow their client base.

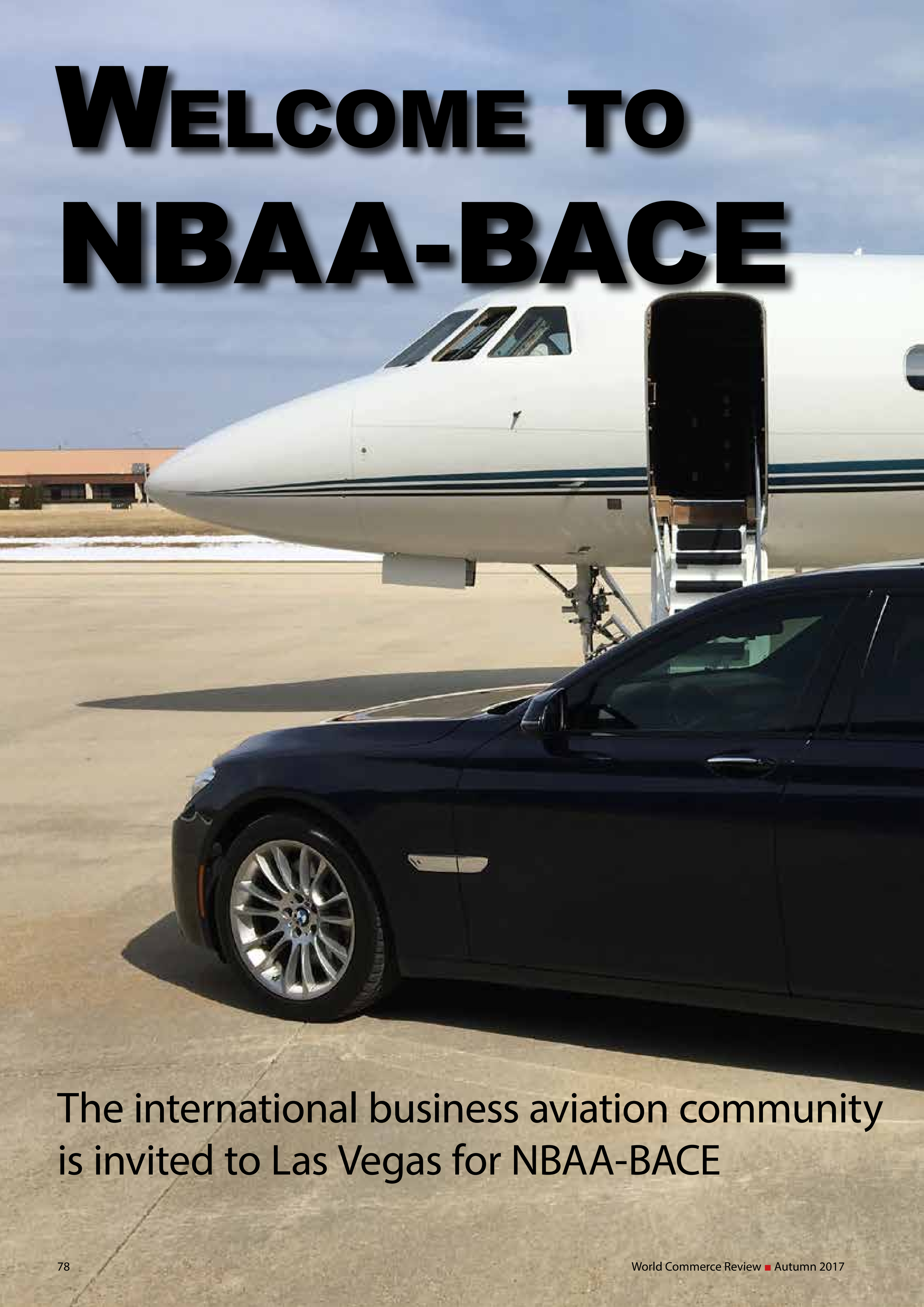
The CAACI has a well-established reputation as a credible aviation regulator and custodian of a world-class aircraft register. The creation of the CMASP further enhances opportunities for commercial air transport operations to be established in the Cayman Islands, as it provides alternative means for Air Operator's Certificate (AOC) holders to have their principal place of business in the territory.

With aircraft registration and services becoming increasingly competitive around the globe, the opportunity for aviation service providers to be licensed into the CEC Special Economic Zone allows the Cayman Islands to offer additional services to quality clientele that operate globally.

Director-General of Civil Aviation, PH Richard Smith remarked, *"This is a very positive development for the Cayman Islands, as it presents the opportunity for multifaceted international aviation industries to be established here. It is envisioned that the aviation park will host a dynamic international community of maritime and aviation services businesses. Additionally, it also presents a basis for operators of Cayman Islands registered aircraft to establish their principle place of business within the jurisdiction to obtain an Air Operator Certificate for offshore commercial air transport."*

"The creation of the CMASP is an example of how a Government Authority and private enterprise can collaborate and innovate for the benefit of the jurisdiction. This will bring the Cayman Islands opportunities that didn't previously exist, and CEC will put the weight of our marketing and business development team behind the effort to promote the Registry, the CMASP and the country generally," said Charlie Kirkconnell, CEO of CEC. ■

Welcome to NBAA-BACE



The international business aviation community is invited to Las Vegas for NBAA-BACE

Business aviation is a productivity multiplier that makes companies of all sizes more efficient, productive and successful. Tens of thousands of companies and organizations worldwide utilize this vital industry to travel safely, efficiently, and securely to conduct business in today's fast-paced and highly competitive global environment.

For 70 years, the National Business Aviation Association (NBAA) has represented the interests and concerns of this diverse industry throughout the United States. Even though NBAA's annual convention focuses primarily on matters affecting business aviation users in the United States and across North America, the event has increasingly served as a focal point for the international business aviation community as well.

Matters of interest and concern to operators from all corners of the globe will be at the forefront at NBAA's 2017 Business Aviation Convention & Exhibition (NBAA-BACE.) More than 27,000 industry professionals will come to Las Vegas, NV from October 10-12, where they will find more than 1,100 exhibits displayed across 1 million square feet of floor space at the Las Vegas Convention Center (LVCC).

NBAA-BACE will also feature a comprehensive lineup of fixed-wing business aircraft, of all types and for all missions, on display at nearby Henderson Executive Airport (HND) from storied manufacturers including Dassault Falcon, Embraer, Textron Aviation, and Gulfstream.

Additionally, more than a dozen light business aircraft and rotorcraft will be displayed at the indoor static display on the LVCC exhibit floor. NBAA-BACE will also feature an expanded selection of rotorcraft highlighting the many diverse applications for helicopters within business aviation.

Of course, NBAA-BACE will also feature an impressive roster of featured speakers. Several distinguished aviation leaders will participate in the event's Opening General Session on Tuesday, October 10 to discuss the current state of the industry, while astronauts Scott and Mark Kelly will be among the featured presenters during the Second Day General Session on October 11 that will also include presentation of the National Aviation Hall of Fame's annual Combs-Gates Award recognizing efforts to preserve aviation history.

Educational sessions address global concerns

NBAA-BACE will also serve as a premier informational forum, with a comprehensive array of topical and timely education sessions addressing topics of interest to business aviation operations across the globe.

For example, the NBAA International Operations Committee will host two sessions at NBAA-BACE, including an interactive panel addressing the committee's Top 10 hot topics for 2018 and strategies operators may use to minimize their exposure to global threats and challenges. A new session will address a thorny issue when operating in some countries where local customs directly contradict established anti-corruption laws and policies.

This year, a session addressing the International Standard for Business Aviation Operators (IS-BAO) and the recently-introduced International Standard for Business Aircraft Handling (IS-BAH) will provide operators with the opportunity to discuss implementation challenges with staff members from the International Business Aviation Council (IBAC) and explore possibilities to make the standard more accessible while not giving up any of its credibility and value.

Additional sessions topics will include the emerging market for supersonic business aircraft; the expansion of unmanned aircraft systems (UAS) operations in business aviation; preserving access to local airports; and methods for the industry to meet ongoing personnel challenges.

Session attendees will also discover expanded interactivity options allowing presenters to ask questions of the audience through the NBAA-BACE app, and modify their presentations in real-time based on attendee feedback and knowledge levels. People may also use the app to ask questions during presentations, and "vote up" questions to assign higher priority for a response.

Safety and innovation in spotlight

Safety will also be a top focus area during the event. Returning to NBAA-BACE this year will be the Single-Pilot Safety Standdown, showcasing the most effective safety strategies for single-pilot operators. This year's theme is *Building a Culture of Safety for Single Pilot Operations*, featuring presentations that provide practical tools and information to enhance the safety of their operations.

Also returning to NBAA-BACE is the National Safety Forum, addressing a variety of perspectives on today's most pressing safety issues. Now in its third year, this important forum will focus on three of the 2017 NBAA Top Safety Focus Areas – Fitness for Duty, Airport & Ground Handling Safety, and Loss of Control-Inflight – and will include invited representatives from the US Federal Aviation Administration (FAA) and National Transportation Safety Board (NTSB).

NBAA-BACE is always at the forefront of bringing new approaches for engagement with industry representatives, and this year will be no exception. One example of this fresh perspective is NBAA's Innovation Zone, which offers a unique venue for attendees to learn about new topics in business aviation.

Located on the Exhibit Floor, the Innovation Zone will feature a number of education sessions focusing on the latest forward-thinking topics of interest to those in business aviation, and new technologies available throughout the industry. Innovation Zone presentations will focus on topics such as enhanced data and facility security technologies; tech trends in business aviation and using new apps to increase operational efficiency; and taking a detailed look at future business aircraft now under development.

Educating future generations about possible career paths in business aviation is another key mission for NBAA-BACE, and college and university students are invited to sit down with industry professionals at Careers in Business Aviation Day on Thursday, October 12.

Business aviation is a global industry, and issues affecting one country or region often reverberate far beyond international borders. On behalf of the more than 11,000 members of NBAA, readers of *World Commerce Review* are invited to join us in Las Vegas this October, where the size and scope of our vital international industry will be on proud display. ■

FIND HIGH REGULATORY STANDARDS WITH EXCEPTIONAL CUSTOMER SERVICE

The Isle of Man has established itself as a centre of excellence for global Business Aviation, particularly with regard to the registration of private and corporate jets.

- Aircraft Registry offering excellent service levels and a quality international reputation
- Growing cluster of aviation related businesses
- High Regulatory standards
- Neutral Nationality registration prefix 'M'
- Secure mortgage register
- No insurance premium tax
- European time zone
- Professional infrastructure with experience in aviation finance

Isle of Man
AIRCRAFT REGISTRY

tel: +44 (0)1624 682358 **fax:** +44 (0)1624 682355 **email:** aircraft@gov.im
web: www.iomaircraftregistry.com

The Malta Business Aviation Association (MBAA) aims to promote excellence and professionalism amongst our Members to enable them to deliver best-in-class safety and operational efficiency, whilst representing their interests at all levels in Malta and consequently Europe. The MBAA will strive to ensure recognition of business aviation as a vital part of the aviation infrastructure and the Maltese economy.

MBAA
MALTA BUSINESS AVIATION ASSOCIATION

a: 57, Massimiliano Debono Street, Lija, LJA 1930, Malta
t: +356 21 470 829 | f: +356 21 422 365 w: www.mbaa.org.mt | e: office@mbaa.org.mt