## Explaining the role of banking and business in society

## Abstract of the Edinburgh Discussion

[Institute and Faculty of Actuaries, Autumn Lecture, Edinburgh, 9 November 2015]

The Chair, IFoA President (Ms F. J. Morrison, F.I.A.): It is a real pleasure to introduce Lady Susan Rice. Lady Rice is one of the most successful business leaders of recent years and unusually for a banker, her career has not been focussed solely on financial services.

She is a leading expert in sustainability, most recently becoming chair of the Board of Scottish Water. She has worked tirelessly to promote financial inclusion. She has just stepped down as chair of the Board of the Edinburgh International Book Festival.

In banking, Lady Rice is the founding chair of the Banking Standards Board, which was established as an independent body to promote high standards of behaviour and competence across the UK banking industry. She was a director of the Bank of England until last year, and previously managing director of Lloyds Banking Group Scotland, and before that chief executive and then chairman of Lloyds TSB Scotland Plc.

She became the first woman to head a UK clearing bank back in 2000, and the first woman to be appointed president of the Scottish Council of Development and Industry in 2012.

Moving from banking to sustainability, Lady Rice also, for 11 years, was a non-Executive Director of SSE PLC, which is the UK's largest producer of power from renewable sources. Through chairing Scotland's 2020 Climate Group, she helps lead cross-sector collaboration on reduction of carbon emissions, and she has spoken internationally on financing renewables and climate justice. She firmly believes that business has a responsibility to serve the common good to help build a better society.

In this lecture she will draw on her unparalleled experience to explore the vital role that banking and business has to play; and, in particular, in tackling one of the biggest challenges that we face in society today – climate change.

Lady Susan Rice: It is a great honour to be asked to give your Autumn Lecture, especially since I am neither an actuary, a mathematician nor a lecturer. I have been a banker and therefore know how fundamental the knowledge and expertise of actuaries is to financial services. We would not have viable insurance or pensions industries without the ability to calculate risk and uncertainty with a significant degree of accuracy.

You will also know something about Halley's Comet, the only short period comet that is visible to the naked eye, named after Edmond Halley, a 17<sup>th</sup>-century astronomer and mathematician. He calculated that a comet he saw in 1582 was the same comet seen previously in 1507, and, before that, 76 years earlier. He worked out that it would reappear every 75–76 years, and he was

proved right on Christmas Day in 1758 when a German farmer, who was an amateur astronomer, spotted the comet.

I have also seen it: on a freezing cold, crystal clear, night in upstate New York. That was in 1986. So I am not too fussed that the next appearance will not be until 2061. All of us can benefit today from one of his other great legacies. In 1593, using data on the births and deaths from the small town of Breslau (then called Silesia), Halley constructed the first useful life table. His life table, like his predictions about the comet, turned out to be quite reliable, providing a pretty accurate picture of survival rates across Europe.

He gave thought to annuities as well, and it was this work that gave birth to actuarial science in a whole new business model, which has made it possible to set up viable schemes for assurance and for pensions.

Your work may be highly specialised, dealing with risk and uncertainty, but its impact is broad and deep and very much in the real economy. It is fair to say that Halley's life table, through the work that you do, has helped lead to a more stable, self-sufficient society. A new business model with huge influence very much over the long term.

We all work ever more efficiently and effectively. We think about the contribution we make to our own work or to our business, but not necessarily about the ultimate beneficiaries of our work. We can sometimes miss the big picture, the real impact we are having, and the value of that impact. As a scientist turned banker, and as someone with a deep interest in both economic and environmental sustainability, I find Halley's work intriguing for its impact as well as its sheer cleverness; but, above all, for the way that it looks to the future, to the long term.

That leads me to my focus now because I am interested in business models that constitute real value, real contribution, which typically means taking the long view.

Wearing my business hat, I will comment on the banking industry: where it is changing, where it is headed; say a bit about utilities as well; and, wearing my decidedly non-actuarial hat, I may throw out a couple of thoughts about how I hope your profession might contribute in new ways to a safe and stable society.

Let me start by pointing out that profit is a good thing. After all, loss-making businesses do not survive; we have a real problem when success equates only to last quarter's or even last year's financial performance, because just about any business I know has a broader purpose, which should be measured on a longer time line.

Profit needs both to drive and be driven by that bigger picture, not just the relatively abstract activity of making the numbers work. Indeed, the word "profit" has a common origin with the word "progress", and means yielding useful benefit.

In various roles in business, alongside delivering significant financial results, I have always worked towards that broader understanding of profit, because probably it is more challenging and therefore more fun. I have never read a management book, but we are all formed by external influences, and for me it was my university. I went to Wellesley in Massachusetts, in America, where I majored in microbiology. It is a women's university, one renowned for its intellectual rigour. Just as important as the academic curriculum, we were taught that we could and should make a meaningful contribution in the world. We learnt the value of disciplined thinking; of collaboration; we were

encouraged to explore unfamiliar viewpoints and to work with people whose choices in belief challenged our own.

Above all, we absorbed the institution's core belief in the enduring importance of service, and the obligation we all have to put that belief into practice. Out of that comes what they call "trustworthy leadership", leaders who create a sense of commitment, responsibility and common purpose, who play the long game.

Since 2008, many in the banking industry have had to think again about what comprises leadership, and how the industry itself should operate. We all have stories to tell from that time.

One I will never forget was in February 2009 when the economy had pretty much hit rock bottom. I was in London and got in a taxi to go to the airport. The driver was a bit chatty, and he suddenly said to me, "So, what do you do?". This is the time when most bankers were going round with dark glasses on and the headlines in newspapers in very large letters were saying, "Vile Bankers Have Done It Again". So when he asked me that question, I momentarily thought if I tell him that I am a banker, he will give me a lot of grief. It has been a long day and I did not want that. Then I thought "What else can I say?".

So, a little bit tongue in cheek, I said to him, "Look, I am a banker but please do not stop your taxi and make me get out because I am one of the good ones. In fact, most of us are". He immediately replied and said, "Oh, I noticed you hesitated there for a minute but I understand. You probably read in the newspapers last week about the London taxi driver who was arrested for assaulting a passenger".

At which point I thought maybe I do want him to stop and let me get out. So I did rather look strangely as he was looking at me in the rear-view mirror. He said, "You know, if I was not in the taxi and someone asked me what I do, I might hesitate to say that I drove a taxi". I thought, "Goodness! We have to stop navel gazing. Some of us at least have to start looking ahead to a time when we might emerge from the mess that we are in".

Given the depths of the recession in 2009, when banking and bankers were regarded as less-than-trustworthy, we could not escape the fact that banks were still best placed to help people keep their money safe, and that banks inherently share a common purpose with their customers and wider society to help individuals and businesses derive enhanced value from their assets to create wealth. To fulfil that common purpose, banks have had to win back the trust that they had lost so spectacularly.

Banking is all about risk, and much of that risk is in the future. Yet, when we judge the performance of banks, as with any company, we focus on output, short-term financial performance, quarterly capitalism, sometimes even on spot numbers, and leave ongoing performance to capital or similar surrogates for longevity, all of them financial outputs. While we can address regulation, that is still not sufficient because we cannot regulate leadership or value or trust. Yet we need those things to deliver the numbers over the longer term.

About every business I know, especially every profession, depends on trust for its ultimate success. Nevertheless, there are those who believe that corporations have no role to play in society beyond their responsibility to make money. Milton Friedman was one.

I am not so sure about that, and indeed if you look at the raft of new regulations imposed on banks since the financial crisis, you could argue that they reflect a belief that institutions, as well as their people, do indeed have responsibilities. We are seeing a sea change in banks on the back of new rules in a whole range of areas: competition, capital, compensation, controls and conduct. I call them the five Cs.

I will say a brief word about each of them. Firstly, competition. There is no doubt that more of it is good; but if banks, large and small, still operate to roughly the same model at the same time, as they are all in synchrony, they are all interdependent, have we really fixed the underlying problem?

New institutions are fine but there is a risk that they may not make that much difference in the long run if the underlying model stays the same.

Regarding capital (my second C), banks have needed more and they need to maximise their capital during economic downturns, not the other way around. That much we know now. Unless regional banks make every effort to attract as much capital as possible from the market, they will not genuinely have the balance sheet resilience they would appear to have. Capital matters a lot but it has to be the right kind at the right time. The business model has had to change.

My third C, compensation: lots of change has been imposed over the last few years and there really does need to be a balance between short and long-term incentives. By the longer term, I mean that they incentivise positive long-term outcomes. However, incentives must not be so long term that, behaviourally, they cease to incentivise altogether. The business model, again, has to be the right one.

Then there is regulation or controls. Banks have to operate, as many industries do, within a robust framework but the nature of regulation matters greatly. While we need regulation in banks, it must not proscribe too much or become overly complex. Complexity feeds on itself, takes on a life of its own, makes it hard for people to make their own judgements. That is one thing we must not take away from bankers, or indeed from any of us. When you do not exercise judgement, you do not take responsibility, and surely that is what we need more of, not less. Regulation prompts compliance, but it is only good regulation that prompts responsibility as well.

There is no doubt that these areas have all needed to change. In each, the business model is evolving. We have to keep in mind that, however, game-changing these reforms are, they impact the company, the organisation, and that still leaves us simply hoping that our banks will be led by strong leaders, hoping that our bankers will be trusted; that customers will receive fair value; and that society will ultimately benefit.

That leads to my fifth C word: conduct. You may know that the regulators impose new and strenuous conduct regimes to ensure individual responsibility is also taken in banks. Even that does not lead to trustworthy leadership.

After my encounter with the London taxi driver, I started speaking about the future of banking as if it indeed had a future, where it could demonstrate trustworthy leadership once again to its staff, to its customers, to society. Losing trust is easy; regaining it anything but, because trust is not something that we can train for. It is not a skill. It has to be bestowed by others. Trustworthy leadership can be learnt, or perhaps it is better to say practised.

That was the goal or the motive behind an initiative called the Chartered Banker Professional Standards Board, or PSB. I chaired the PSB, which was launched 4 years ago by the Chartered Banker Institute and eight UK banks, comprising about 75% of all the bankers working in this country. This is the first time there has been an attempt to professionalise the banking industry in the UK or just about anywhere else. We are developing standards (not qualifications or exams) for the broad knowledge and, crucially, for the ethical and professional behaviours we should expect of very banker.

By the end of last year, well over 150,000 bankers had achieved our foundation standard. It will be far more by the end of this year, and more standards are coming.

In parallel, the new Banking Standards Board will develop standards for banks, encouraging each institution to reach higher than what is required by regulation, all of which we hope will lead once again to renewed trust in our banking system which will open the door fully for banks to support wealth creation and well-being in society.

So if at any point you have asked the question, "When will we know our financial system is working sustainably?" one way to respond is to say that we will know when it is once again trusted and we can measure trust, pride, professionalism, confidence. We can measure values. The key challenge, however, is to understand the impact of those values and not simply metricise them. That comes through the story an organisation tells.

At Lloyds, for example, the bank sets out its stall as helping Britain prosper, bringing this epithet to life through a number of commitments: helping more people get on the housing ladder; helping customers save for later life; helping the disadvantaged to have access to and benefit from, appropriate products and services; helping small businesses to start up, scale up and trade internationally, and more.

This is not a side-line; it is not something dreamt up by the marketing department. It is the core purpose of the business expressed as a set of promises.

The value of these activities is measured with the same sharp focus that is brought to bear on financial performance. These are the things that promise legitimacy, that create a common language, that form the basis of a narrative that helps to earn trust.

So banks are dealing with the legacy of the financial crisis and the regulatory changes attendant with that and are beginning to hold their colleagues in their own institutions to a set of standards and tell the story of how their business relates to the real economy. This is something of a new model.

However, there is a risk that banks could easily spend all their time fixing what has been my five Cs, new standards, and miss the boat altogether for what is coming. So let me look forward.

As we know, society is in the middle of a massive transformation in how we communicate, how we transact, how we socialise. Call it digital disruption or the age of technology.

I will leave cyber risk for another day and focus on a different phenomenon, one that is creeping up on us that is rather more subtle. The world we are looking into is one where knowledge is becoming fully democratised. Everyone has it and has all of it. Products and services are becoming completely

personalised. We have already started down that road. Nearly all of us are highly dependent on the iPhone. I get instant help with any question I have, reminders about everything: the traffic up ahead; my husband's birthday tomorrow; reminders about things that you maybe did not want to be reminded about. I also have another thing smaller than an iPhone. It is a little personalised Wi-Fi box. It is my personal Wi-Fi connection to use almost anywhere. It holds the whole internet and it is with me all the time.

I am not commenting on whether this digital existence is a good or bad thing. The fact is it creates a huge degree of intimacy. My world comes to me, not the other way around.

Then there is the internet of things. A contact lens containing a chip that can measure a person's glucose levels; a chip placed in a car to monitor the behaviours of a new driver. Workers in our country who have said that they would have no objection to being chipped so that their employer will know where they are and what they are up to. I must say, that makes me pause.

Devices are being used far more for payments. Who knows, pretty soon it may be by a chip in the finger.

Think about the impact on banking. For people who do not yet have a credit rating with their bank who transact mainly on their mobile device, it may become difficult for them to establish a credit rating for when they need it. It may then be harder for the regulator to assess the overall credit quality of a bank.

The traditional approach of credit rating agencies may need to change. They may need a new model. There is also the challenge of unexpected outcome. In a big data environment, when you or I buy something on our mobile device, which is supremely convenient, our network provider knows where we are because of location services, what we have been shopping around for, because of our Amazon searches, what we have just purchased, where it is being sent, how we paid for it, and what institution holds our money. People do not stop and think about that.

Non-banks do and they value this information, as it lets them disaggregate or disintermediate banking activities such as the payment function and enter that space themselves. Think of the Bank of Starbucks, where they benefit from the money you store on their app.

Then of course we see the digital world taking a different shape in developing countries, where, for instance, people trade mobile phone top ups or stored energy in their solar panels in place of cash.

So for banks their competitors are different, even their core product currency is transforming. Above all, such developments are profoundly changing their customers' behaviours and expectations.

The industry needs to work out how to keep their customers' money safe, how to help them protect and grow their wealth in this new world. This will not necessarily be simply by adapting today's business models; it will be about developing a new model altogether. It is easy to be glib about the digital revolution, and I hope that some of you are thinking about actuarial work in the future. If people demand instant and completely personalised information whenever, wherever, who is developing the app that tells me all you or my kids or yours how much they have to save and when

they need to start in order to have a comfortable later life? That is what they will want: an app that is simple, easily understood, constantly changing and updating.

If a life table is an aggregation of information about individuals which then informs financiers as they develop relevant products, is anyone thinking about informing the customers directly? That is also how profit will be made.

Now, having mused about financial services in that way, I shall turn my attention briefly to another sector I know to some extent: utilities. Resource and environmental challenges face us all. These are due partly to behaviours and partly to something no one really wants to talk about: population. If Halley were with us today, would he have turned his attention to the energy or resource needs required by an ever-older and an ever-expanding population? We do not just need money, we need water and power as well to have both a sustainable economy and a safe and secure society.

I gather that the IFoA has started to bring its expertise to bear on the impact of climate change and the depletion of natural resources. I come at climate change from several angles; as a banker, from the perspective of financial. My own bank has arranged or underwritten renewable energy projects in wind, solar, landfill, gas, fire fuels representing enough fuels to power four million homes.

As Fiona mentioned, I was also a non-executive director at SSE, the UK's second largest utility and biggest provider of energy from renewables. Both companies fund infrastructure. One builds it as well. They have to monitor energy price volatility, continuity of energy supply, geopolitical risk to supply, increased environmental sensitivities, legislative impacts, changing energy requirements and an ever-growing human population. They do their best to invest wisely today, but a little bit of help from actuaries would not go amiss, as it is not just about finance, it is about behaviours as well.

Fiona also mentioned Scotland's 2020 Climate Group, which I chair. It is a coalition of business leaders and other leaders in sustainability, interested in prompting an appropriate focus and behaviours in relation to climate change among business, with an eye on a sustainable economy.

In the summer, I became chair of Scottish Water. The water industry is new to me. Scottish Water is a public corporation. That is a highly unusual beast, and it is a monopoly. What struck me from the outset is just how genuinely integrated the customer and customer trust is to the Scottish Water business model. I had not expected that from a monopoly. The company serves close to 2½ million households in Scotland, but why would it choose to focus on building trust when these customers have no choice? Far from taking its position for granted, Scottish Water believes its unique position increases the imperative to be trusted. It wants its customers to be as delighted to be served by Scottish Water, not just comparing itself to other water companies but comparing itself to companies from all different sectors.

People say that they trust us because of the reliability of our product and our service capability; but with expectations so high, if there is a problem, they are all the more upset. As impressive as our satisfaction levels may look, some customers do not know enough about Scottish Water to say whether they trust us or not. So to build and, crucially, to sustain trust, particularly among the vast majority of customers who never experience any service issues, we have to tell people about what we do, helping them understand that they also have some responsibility for a generous and safe supply of water – again a narrative through which we express our core purpose.

Scottish Water sums it up as trusted to care for the water on which Scotland depends. Perhaps one of the most intriguing things I have found in the company is the way it has involved customers in future business planning. Agreeing a business plan of any water company is about sitting down with regulators and government. Ahead of the new 6 year regulatory period, which started in April this year, Scottish Water went a step further. A customer forum for water, chaired by a former minister, was established. The company held a major consultation where customers were asked about their priorities. For example, action to reduce sewer flooding or address low pressure. Uniquely for a UK utility or indeed for most companies, we now have a business plan which has not only been negotiated and agreed with government and regulators, but also with our customers.

This is a business model of the future, not bringing customers into the business when it suits us, but involving them from the start, and literally shaping the business around them. The results over the last decade or so have been genuinely striking.

Scottish Water has come a long way since its formation in 2002, when it inherited a host of problems. The quality of water in our customers' taps is now at an all-time high. It is 99.92% – although that is not considered good enough yet. The average household charge is less than the UK average, even when every other water company in the UK is privately owned. Surveys have shown we are among the UK's most trusted utilities, with customer satisfaction levels above 90%. This from a publicly owned monopoly, yet it is apparently getting its business model right.

Water infrastructure has to last for years so decisions made about where to add a water treatment plant, or modify surface drainage, or extend access to mains water, are decisions which have to be right. Analysis is constantly being done where pipes might have weaknesses, where sections need to be replaced, where infrastructure needs to be added as the population rose and as habitation spread or becomes denser.

The company itself is the biggest dam owner in the UK. It has infrastructure spend pegged at about half a billion pounds a year for the next 6 years, and it needs to spend wisely and well to keep up the quality of water and of service.

Given an ageing infrastructure, changing rainfall patterns, new laws, new expectations from customers, it has to make some pretty insightful decisions.

It used to manage assets, take care of them, build them and look after them. It now manages risk. If we get it wrong, we are talking about potentially really bad issues of health or worse.

On top of that, water companies are one of the biggest emitters of carbon in the atmosphere. Think how many water treatment plants there are. Scottish Water continues to achieve year-on-year reductions in its carbon footprint to the point where it has the lowest carbon intensity of any provider in the UK. That is well and good; but how does a company like Scottish Water continue to make the right decisions, given the complexity of these pressures and the huge price of failure?

How does a power company spend wisely and well as it looks ahead to climate change, population growth, population movement? Think of the benefit an actuarial approach could shed light on any of these risk factors.

So, what conclusion do I draw from my experiences over the years from young science undergraduate to a senior banker during the industry's most challenging period and now leading a public monopoly that provides the very stuff of life?

Halley's life table eventually led to the creation of significant and profitable global industries in pensions and insurance. The benefit of his work, delivered through your profession, is much deeper than simple shareholder dividends or a healthy profit margin. Like banks, like utilities, we are all in the business of building a sustainable economy and a safe and secure society.

I think you have a major role to play as the way we live and the world we live in, change fundamentally. Networks are not just about communications. Networks govern the way viruses travel, the way energy is delivered, the way population moves, how financial crisis spreads. We look into a future where the world is linked up in ways that would have been hard to imagine in the past yet, at the same time, where transactions are personalised to a unit of one, and knowledge is abundant and democratised. Personalisation, democratisation, in the future and requiring a new business model.

By the time Halley's comet comes around again in 2061, I trust that actuaries will have continued to carry his torch by helping bring this new model to life in a way that continues to build a safe and sustainable world. Thank you very much.

The President (the Chair): Thank you very much for that. It was absolutely great. I am going to open this up to questions and comments.

Mr R. Edwards, F.I.A. (via twitter): I am keen to find out what Lady Rice is going to say about the growing drive to divest from fossil fuels.

Lady Rice: It is an interesting one because we tend to conflate various issues very often which are issues of carbon emissions, climate change and natural resources.

I was brought up in a world where we did not talk about climate change but about natural resources.

The move away from fossil fuels has obviously a benefit in terms of climate change and in terms of carbon, and the implications there, but there is something about having finite resources, whether it is fossil fuels, whether it is other kinds of resources. We have to manage those and muster them appropriately. As the world gets bigger in terms of population, and as various natural resources change because of pressures on them, we just have to be very clever.

So, dealing with fossil fuels, I often say to people about climate change there is a religion about climate change, and there is the science of climate change, and people pick one or the other sometimes when they talk about it. A neutral ground is to look at your natural resources and say whatever, climate change or not, we should be doing something about these.

Mrs S. Vaughan, F.F.A.: Talking about the skills that actuaries have, in particular in relation to the banking sector, it feels like it is quite a natural match for actuaries to work with within the banking sector. I just wondered from the banker's perspective, what you think their barriers or hurdles have been so far that have meant that actuaries still have not integrated into that profession as perhaps they could be.

**Lady Rice** (responding): That is an interesting question because the space that actuaries have been in financial services obviously is on the insurance side and on the pension side of things.

What you deal with is risk. You deal with creating some kind of certainty about looking forward and predicting in some sense the future and allowing certainly insurance products to be developed and delivered which are affordable and sustainable because of those predictions.

It seems to me that in banking more generally, and indeed in other areas which have to look forward, there are ways that actuaries could be useful. One of the things that I go on a lot about is the need for almost any kind of business, and those who judge businesses as in the investor community, to learn how to make judgements that are forward-looking as well as again yesterday's financials.

So in the area of climate change, the investment community has developed some ways of looking; for instance, in industry, take the airline industry, look at every airline in the UK, we all have a legal requirement to reduce our carbon emissions as a company by 2020. Some have taken a lot of steps and are well down the road to meet their own targets for climate for carbon emission reduction; others just have not got started yet. So there are still a few years until 2020. If you were investing in a company, you would start to hesitate to invest in the latter company because it has not started and it is going to have to put a whole lot of money in at the very last minute and maybe not get it right. So there is financial risk out of that failing to look ahead and deal with the future problem.

There are ways that you could prompt in lots of areas, banking or indeed other kinds of businesses, to think forward.

Mr J. Taylor, F.F.A.: Thank you, Lady Rice, for a very broad, wide-ranging speech. It was fascinating. If I may pick on one of those perspectives, the difference between the private sector and public sector, I would be quite keen to hear your views, having worked in both.

I think for many decades the orthodoxy has been that capitalism and the free market has been the best way to achieve the most efficient and best outcomes for consumers. Clearly, since the banking crisis, there has been a bit of a change in that sentiment. There is talk of renationalising industries along the way.

You espoused the virtues of the private sector in the case of Lloyds, and again the public sector in the case of the water industry. I am keen to hear your views as to which do you think serves consumers better and what are the various incentives for different structures?

Lady Rice: An interesting question. I would just say again that Scottish Water is not a public sector body as in being directly part of government. It is public sector but it is a public corporation so it operates to private sector principles in terms of governance, in terms of the board that I chair; almost all the members are from the private sector. But we also operate to certain standards in the public sector so it is a very funny beast.

There are three regulators that in a way stand between us and the public sector. So it is rather a complicated model. I do not know of many others. It is not straight public sector.

But I have been bowled over at the track record that Scottish Water has developed. I have begun to look into why is it, because I have spent my whole life in the private sector, thinking the private

sector of course is much more efficient, drives values and is more productive. The public sector is sitting around spending money, whatever biases one has.

This is something different. It may be again that if you look at other water companies, and I do not speak from great knowledge because I am just looking into this now, the number that are owned by major investors, those investors are looking for a return on their investment and they may not focus in on the special place that a water company has in society.

We cannot live without water. It has to be right; it has to be clean, delivered, safe and so forth. So they may be putting constraints on their companies which lead to shortage from investment; financial results but not that longer term benefit.

Scottish Water simply said we have to get this right. What has struck me in my few months there, talking not just to the board or executive directors but to people below that level, every sentence they talk about is, "We are doing this because the customer needs it; because the customer wants it. This is what the customer has told us". It is absolutely business driven by the customer. They have come out with these metrics which are outstanding.

If there were some way to combine the two, I think you would be in heaven.

The Chair: May I ask a follow up on Scottish Water? You were talking about the customers being part of setting the strategy. How relevant and transferable is that sort of model to other types of company?

Lady Rice: I can only speculate. In fact most of the businesses I know well, use the phrase "We put the customer at the heart of what we do".

What most businesses do is set out to develop their business, to create some products, to decide how they want to deliver them to service customers and so forth. At some point they will have that conversation with customers or draw on customer data, and make sure that it all matches up, so they can deliver the business.

With Scottish Water, they are starting with what the customer wants at the beginning. It is profoundly different. I am not sure that could not be done elsewhere. I sit on the board as a non-executive director of Sainsbury's. That is a retail food and non-food provider, a grocer. They are much closer to that model of having the customer front and centre.

They do not have a customer forum that helps them design their actual business plan and their goals, but they are much closer to what the customer wants, and the decisions they make are in line with promises that we have made to our customers, and we need to deliver a business that will let us fulfil those promises. This could be broadened out.

Mr I. J. Rogers, F.F.A.: In relation to your last comment, it was interesting saying about the dialogue with customers and asking them what they want.

A water company has an advantage in that customers really know what they want from a water company. They want clean water at adequate pressure and they want their sewage to go away.

Do you have a view on what the financial services sector can do to have a meaningful dialogue with customers when really the customer does not understand as well as they do for a water company what they want?

Lady Rice: I would argue that from the other end. What does somebody want from a financial services company? They want a place that will help them keep their money safe, a place that will help protect it, that will help them grow their personal wealth, if possible. If you ask the question in the right way, in a very simple way, people could respond "These are the things that I want".

What gets complicated in financial services is the way that things interact with each other. It becomes complicated and then it is hard for customers to say "I do not want this. I want that".

What they want is something that helps them live their lives better.

At one point Scottish Water did some research with their customers. I do not know what the setting was, but they asked customers to draw some pictures of what they thought about of Scottish Water, or what they thought about when they thought of Scottish Water. They did not get pictures of lochs and reservoirs, and things of that sort. They got pictures drawn by people of the lives that they lead.

There is something that if you go to people and you say, "What do you need to help you live the life that you want to live?" you get simple enough answers. Even then, people would know what is needed in financial services. It is just that what we deliver today is hugely complex and very hard for anyone to disentangle.

Mrs C. M. Ryden, F.F.A.: Lady Rice mentioned that actuaries are important in dealing with risk and how they can help the economy.

At the moment the IFoA are very keen on the idea that we should branch out into wider fields; and, as you mentioned, we tend to be associated with pensions and insurance. I am just wondering, from your own experience with SSE and Scottish Water, how would you see us, or can you see a way how we might involve ourselves with companies like that? Would it perhaps be worth us carrying out some relevant research which they may be interested in? I am assuming that you do not employ actuaries at the moment and you do not think of employing them. How might we break in to those areas?

Lady Rice: That is an interesting question. Both kinds of companies, a utility, a power company, and a water company, as I mentioned, have a lot to do with infrastructure – with pipes – with placement of infrastructure – that are designed to last for two generations or more, for a long time.

When these pieces of infrastructure begin to wear and to breakdown (valves, pipes, etc.), they may have been put in 50 years ago and there is nothing that is immediately obvious that says there is going to be a break here or a fault there, yet it is in the company's interest to be on top of these things to the extent possible, to be monitoring and so forth.

There is something around looking at the materials stress. It is hard for me to say directly, but if you think about the issues and the problems that face these companies, there have to be ways to deal with them.

An energy company is delivering more and more electricity, and then people move to gas. Now people are moving back to electricity because people are all going to electric cars. These kinds of things change, and so forth. They need to build infrastructure that lasts for 25–50 years.

Something that helps look at those big, long-term projects, looks at where the risks lie, longer term, will help them make better decisions. The short answer is a little bit of thinking and turn up on the doorstep and say, "Look what I have for you. Have you thought about it this way?".

I mentioned that Scottish Water used to manage its assets. It had a dam here and a pipe there and dealt with them. It really manages a portfolio. It manages risk in that portfolio. That is how it has to run its business. If you think about it like that, where its greatest risks are, that will help it make the right decisions now.

Mr D. Martin, F.F.A.: I have a question that relates to the very interesting part of your speech on the introduction of standards. Could say a little bit about the repercussions for bankers in the future if one or more of them were found not to have lived up to those particular standards? As part of your answer, to say whether there is an increased reputation risk for the banking profession now that you have standards which some bankers then do not adhere to.

Lady Rice: I will give you the answer of an idealist. On the professional standards work, the standards for individual bankers, there are about 450,000 bankers in the UK today. We will have, by the end of this year, certainly over 200,000 who have achieved our entry standard, which is pretty good and it is expanding all the time.

When we first introduced this and I first started talking about it, somebody said to me, "So, how long will it take for the standards to make a difference, for things to change?". My first thought was a generation, and then I thought that is too long for anybody so I will say half a generation.

The vision is that at some point, if you are a banker, you will want to have achieved these standards. If you do not, then you will not progress in your career. Then you will have problems when you want to change companies'; it will follow you that you do not have the standards. Similarly for the Banking Standards Board, but it will take a while until all of this kicks in. It is not something that can be fixed overnight.

In terms of what will happen to people, we hope that there will be a desire for bankers and banks to adopt these standards and ensure that they are delivered. There will be problems for those who do not achieve it. There will be career problems.

If bankers, for instance, do something worse than that and put their hand in the till, what might be an internal disciplinary issue in some, until it becomes a problem, will probably be a bigger problem initially. If a banker achieves a standard and becomes a member of one of the institutes, they would lose their membership and that hurts them in career terms.

That is the way that we look at this. We are not talking about either body being a disciplinary body. Institutions' discipline and the regulator discipline. What we want is the upside which is people want to achieve these so strongly that it becomes a personal menace if you have not done it.

Mr C. I. Black, F.F.A.: Following on a little bit from the question on conduct risk, the regulators are not as optimistic as you, so in banking there is effectively a presumption of guilt, whereas in insurance there is a need to prove guilt. Have you any thoughts on that and the consequences?

Lady Rice: Yes. I firmly come from the school of thought that you cannot go to work every day believing yourself that somehow you are guilty because everyone thinks you're guilty. In fact, as I understand it, there has been quite a recent softening of that approach, which is essential.

I think most people in the world want to get out there and do the proper job and do it properly. They need some guidance and they need to know and understand how to do that.

If they make a mistake, it does not mean that they are guilty of some sin. They have made a mistake. They may be guilty of some sin, in which case they should be dealt with.

One of the problems that one has to face is every time there is a problem, there is new regulation or new constraints or new whatever, and you come into a situation where people stop thinking, they stop, as I said, using judgement. That is the worst thing that we can have.

So what we really need to do, and that is the hope that what these standards will do, is help give every banker enough confidence to use their judgement to speak up when something is wrong, but also to use their judgement when they are making decisions, and most of the time they will get it right. Being guilty unless you can prove your innocence, is not the way I look at the world.

Mr G. R. Marshall, F.F.A.: Lady Rice, I know as chief executive and subsequently chairman of Lloyds TSB, you are familiar with the foundations of the savings bank movement. Henry Duncan, as a minister in the small village of Ruthwell, established a savings bank leading to a movement which was built fundamentally on trust between the parishioners, the villagers and their local minister. Today organisations and banks and other financial institutions are getting necessarily global and bigger.

You mention about the intimacy of the internet. Do you think it is possible to attain the same level or a similar level of trust as was established in the foundations of the savings bank movement or is the concept of trust having to move on? How near is it to get to that level? What is achievable?

Lady Rice: That is an interesting question. My first response is we have to have trust, whatever the nature of the bank is.

Just in case people do not know, Henry Duncan, who was a Scottish minister in the south-west of Scotland, required all of his parishioners to save a small amount every week against the years when the crops were poor and they might be out of money and therefore out of luck. This was to keep them off the public benefit system of the day, as it were, to help them look after themselves.

If you read some of his works, he wrote things such as "Far too many young people spend their hours in the local tavern, with the women very interested in what clothes they were wearing and the men very interested in what they were drinking". It was a very funny comment. He was trying to improve society in lots of different ways.

People learnt over time was that they were being forced literally to put a shilling, or whatever it was, away every week or every month. They learnt that there was some good in this and that led to trust. It was done with somebody who had their interests at heart, even though they might not have enjoyed turning the money over at the time that they did.

When I talk about new models, banks need to think about a different kind of model, which is not simply, "We will deliver this to you and we will do something else". But says, for instance, to a small business, "You want to buy a new fleet of cars for your business; we can arrange the finance for selling you that. We will do some other things. Do you know you need to do this, that and the other?"

The bank starts servicing the actual need of that customer. That is where the trust begins to come. Trust only comes when you know what your customer needs not when you sit back in a room with a closed door round a meeting table, imagining what the customer needs. It is possible to do this, but you need that connection.

Mr B. Kemp: I am General Counsel of the IFoA. You were talking, Lady Rice, about the importance of individual judgement and professionalism, and promoting those concepts. You also touched on speaking up. Those are all concepts that we have been dealing with in work at the IFoA.

One of the things that we have been thinking quite hard about is how you can encourage people, as individuals, to exercise that responsibility to speak up, sometimes in environments which are not conducive to that; sometimes in situations where perhaps commercial pressure has been brought to bear; there are risks to them as individuals if they do that.

They might want to do that; I agree with you that people generally want to do the right thing but it is not always the easy thing to do.

Therefore the issue we have been thinking about very hard is how you promote organisational culture that helps individuals to do it.

The question which occurred to me is: how do you promote positive culture on the scale, say, of an international bank? How do you start with that?

Lady Rice: First of all, there is a challenge. It is a challenge in almost any company these days, a British-led company that operates internationally in a number of countries. That is that there is cultural relativism. What we think in the West as being appropriate behaviour, appropriate ways to do things at work, will be different for people, not wrong, but different in other countries. Or in one company you have people from lots of countries from around the world and they bring their different cultural approaches to work.

There is something in having the companies say, "Look, we understand you all approach things differently. But in this company this is how we want to do things, and this is why". If the "why" is about the customer, the end beneficiary, that becomes a more convincing story than "We are doing it in order to get more money into this division so someone else can get promoted". That does not do it for the individual. But if you explain to them: "This is what we are all about in this company. It is about the ultimate beneficiary out there and this is why we approach things the way we do", that is one legitimate way to go about it and it is not an easy thing to do.

There is something else which is distinguishing between the what and the how, and so people will be told by a their teams, their managers, their company, "This is what we do", but in terms of how, there does need to be a common understanding that can be explained in that way.

In terms of people speaking up, this is so hard to do in the workplace. You get pressure; there is something about ensuring – and this is part of what our professional standards work is trying to do – that it is expected in meetings and just the ordinary course of business that people can speak up if they have questions or challenges at the right time, early days, even if they are very junior in the organisation. That is looked for and sought. There is something about encouraging that.

The President (the Chair): My question is about Scotland's 2020 Climate Group. Could you talk about a real example of an initiative that has come out of that group?

Lady Rice: I can give you two different initiatives, very different from each other. One of them has to do with creating a programme called Scotland Lights up Malawi. There is a social enterprise called SolarAid. It makes little batteries which are solar powered which can be used in countries which have lots of daylight. It does not have to be sun but it has to be good daylight.

In a lot of parts of rural Malawi, there is no electricity. There is no electricity grid. It is not coming for a long time. The children go to school; they come home; the family says that you have to do this, that, whatever it is that they do. They have to work either on the crops or in the house. Then it is dark and they cannot do their homework.

What these little battery-powered lamps do, is give them light after dark. It means that the children come home, do their chores and then they can do some homework. It is an extraordinary initiative. A little social enterprise trying to roll this out in various African countries.

Scotland has had a particular interest in Malawi; and so we mobilised, through 2020, various organisations to create an entity which has done fundraising which has supported the dissemination of these solar powered battery lights with huge impact.

That is one thing. It is the only time, really, that we have looked overseas, and we have looked at something that is called Climate Justice.

Another one is we worked with colleagues with sub-groups and one of the members of the financial group that I was chairing with PA Consulting. We are very interested in supply chains in Scotland, and how do we get them into this conversation about climate change? They pulled together for about 8 months representatives from about a dozen supply chain companies, supplying whatever to renewables, construction, mainly wind, but other types as well. They talked about common problems, common issues, things that competitors do not usually talk about. They did not have to talk about their company and their business. They talked about this as a generic thing.

Out of that came a planning tool, which is a little hard to describe, but it is a handy tool that you can say "Here I am at this stage of the project. This is what I need to think about. These other people I need to talk to now" and so forth. So very practical things came out of that.

Mr J. S. Young, F.F.A.: Lady Rice, I work in banking now. I am interested in how we can discover skills that actuaries can bring to banking on a wider basis. I wonder if there are any types of

problems that you think exist in banking today that could lend themselves as areas that we should be trying to think of a little bit as an actuarial profession. Even if we do not get directly involved now, we could maybe add a bit of understanding with those problems. Things like stress testing, understanding risk in that way, pricing models, looking short term and long term. I wondered, from your experience within banking, if there is anything you think these are areas we should be thinking about and challenging. Is there something we could bring a depth of understanding to?

Lady Rice: You have just answered your question. You said a couple of the things that I might have said myself. The UK regulatory regime has become one of the most rigorous in the world, post the financial crisis. Banks have to do stress testing. It used be scenarios, but it is now very serious stuff. They sometimes have to stress test out 100 years. "If the currency is devalued by this, and a plague happens etc, can you afford your mortgage portfolio?"

Anything that looks out that far is pretty difficult for people. Any of these areas, where banks are being forced to look way into the future, there must be a place where actuaries can help them think and shape even the questions that they need to ask and the information that they then need to have to hand or to analyse.

Mr D. G. Robinson, F.F.A.: Lady Rice, you have talked about the need for banking standards and the work you are doing to improve standards of behaviour within the industry. You also talked about profit being a good thing and I do not disagree with that. I would be interested to hear your thoughts on what constitutes a fair profit. What does a fair profit look like?

My question is prompted in part by the PPI scandal. My understanding is that even in cases where products were sold correctly, commission rates were as high as 90% of each premium. These were in my view clearly excessive and abusive of customers. I would be interested to hear your views on how this sort of behaviour might be changed in the future? Is there any scope with your work on banking standards for ensuring that profit levels are fair for customers?

Lady Rice: That is a very interesting question. I will tell you that I sat for a number of years with a group of representatives from European savings banks. Savings banks are very big in European countries. At one of its meetings a fellow who was chairing the meeting was from Spain but was completely bilingual with English. The word "fair" in that sense was used. He said, "You know, there is no word in Spanish or Portuguese for 'fair'. They have other words". It is very interesting question.

It is absolutely part of our Anglo-Saxon culture that we think about fairness. One way – and I do not mean to answer this in any glib sort of way – is it seems to me that if we keep these things simple, they manifestly become more fair.

If a bank were selling an unsecured personal loan, below profit, very low, then they basically thought if a certain per cent of customers take insurance against the day that they might not be able to pay back the loan, then that is where the profit comes from.

I have spoken to lots of people who had PPI. A lot of people say "I slept at night because I had it". Even though of itself it is not a bad product, it is just that when you dissect it now, it looks hugely unfair. Something has a profit margin that big. The other thing was a loss. That is complicated for the customer. Why not just keep it simple? My view is the more that we build complexity into things, the more we get ourselves into trouble. That would be one answer.

The other thing about fairness is giving something back to your customers, quite honestly. Shareholders own a business and businesses are absolutely focussed on shareholder return and creating shareholder value.

It seems to me that you create that value long term if you are also giving something to your customers. If businesses all thought about the long term and not just about short term, I think we would wind up with models that delivered profit, that appeared, felt, and indeed was, fair by a wider range of stakeholders.

Mr M. A. Potter, F.I.A.: Lady Rice, you were telling the story of being in the back of a taxi during the financial crisis. It reminded me that we learnt all sorts of new phrases at that time and technical jargon like "collateralised debt obligations" and "sub-prime mortgages". I guess to people watching the news or the man or woman in the street, the interconnectivity of our global financial system has appeared quite a negative at times and it was really hard to grasp a balanced view of this.

At the IFoA we had some challenges and worked pretty hard to try to get some of those same issues and points of view across at the time of the Scottish Independence Referendum last year. With David Cameron announcing that we have another referendum coming up next year in June, how would you help to put a positive, more balanced, narrative on our global financial system?

Lady Rice: Theoretically, about the upcoming referendum, first of all I have to say that in all the roles that I do, I have to be very cautious not to express any political or proclivity in any direction at all.

It is an interesting space, for the financial system because a great deal of regulation now comes from Europe, and that is sometimes resisted here and sometimes felt not necessary, and most of the time it is absorbed and taken forward.

So I do not know whether the run up to that referendum and the data round it will focus very much on financial services. It is hard for me to say if we were in or out of Europe whether that would have an impact on our banks.

We have a huge financial centre in the UK. We have a big one here in Edinburgh and a very big one in London. These are international banks, they are not all European banks, and we must not lose sight of that. These are banks from all round the world which value the kind of openness and the discipline that is brought to financial services in this country.

So everyone can moan a bit about regulation. Banks need regulation, they need regulators; they need enlightened regulation; but this is a very good place for financial institutions to do business. I would simply say that I hope that environment does not change whatever happens with the European discussion and a referendum.

Mr N. J. H. Salter, F.I.A.: Most people think that they know what bankers do. But there is a plethora of different things that bankers do.

Traditionally, it seems to be split between investment banks and retail banking. At the moment they are together. What is your view on the merits or otherwise of splitting them into two?

Lady Rice: I went into banking in the US and this was when they were at that stage split, but soon after that regulation went away.

It seems to me when I talk about retail banks, I talk about banks funding themselves out of the market. A bank is there to serve customers, to serve you and me and our businesses, out in that real economy, I think the greater the extent to which it is linked to that real economy, the greater the extent to which it derives its capital and its funding, the better because it is linked to what it is serving, basically.

Investment banks are doing a slightly different kind of job. They do a good job at their best, and a very important job. But it has a different link. So whether they become split or whether they are simply hived off within an organisation, I personally do not have a problem with that at all.

A big bank that has both will basically use what flows into one financially to help fund and end source the other. It can become complicated if things are going well externally and going well for everybody at work. When things begin to unravel, that becomes a much harder model to make work. So there is nothing wrong with them being together, but when times are tough, it becomes much more difficult.

The President (the Chair): I am going to draw this lecture to a close. One of the things that really struck me was about trustworthy leadership and behaviours. Also, there is something around regulation: even rafts of regulation are not sufficient to secure that, and that we need to keep that goal in the forefront of our minds.

For those of you who know me well, you might have spotted that it is a very special event for me: a female president with a female lecturer, Suzanne Vaughan being the first female leader of our Scottish Board, and Carole Ryden being deputy leader of the Scottish Board.

Thank you very much for coming. Thank you very much for your comments and questions.

Would you join me again in thanking Lady Rice for a fascinating presentation and very generously answering all the questions.