Two Degrees of Change

Slide 1
Good Morning,

Thank you very much for giving me the opportunity to speak at this important event today…

It seems somehow characteristic of Helena's efficient approach that we are trying to tackle two big and important subjects – gender diversity and climate change – in one conference…

There is however a common thread that runs through both subjects: productivity.

First, because we will only be able to tackle the UK's poor productivity if we make use of all the talent and skill that is available…that means getting the most effective participation in the workforce and in business by both men and women… using everybody's talents in the most productive way. Women have both underperformed relative to their potential and been underpaid relative to their potential.

And secondly because productivity improvement requires investment.

Addressing climate change is important in itself… it is a huge waste that an energy-consuming global economy cannot more efficiently tap into the free energy provided by the sun, wind, ground heat and tides.

Climate change should also be the spur to much greater investment in alternatives, in more efficient infrastructure, skills and in R&D – it is vital that we invest if we are to create growth, jobs and rising real wages.

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To start with productivity. The UK's productivity lags its OECD competitors with a productivity growth rate of less than 1%.... no improvement versus its pre-2008 position.

A lot of research has been done on this, including by the Bank of England. There are no very clear explanations or single obvious solutions. Sir Charles Bean and our own economist James Carrick at LGIM have queried some of the official data and methodology to suggest that inflation has been under-estimated and GDP growth under-estimated.

Another theory is that the gap may be partly explained by compositional effects, in other words our economy was disproportionately dependent on the financial sector, so suffered more than others as a result of the credit crisis – however FS is one of the most efficient industries.

Perhaps more plausibly, the poor UK productivity figures may be partly due to our success in creating record numbers of new jobs since the credit crunch. Job creation is of course a success… But it would be much more of a success if more of those jobs were more highly-skilled, more productive and delivered more real wage growth and greater tax revenue.

What in fact has happened is that managers in the private sector have had a series of windfalls which have enabled them to avoid investing in improved productivity. These included lower interest rates, lower tax rates, the ability to hire relatively cheaply, and outsource production to Asia, and hollow-out middle management… and also to execute share buybacks.

What is worrying is the UK's position versus others: we have been disproportionately slow in improving productivity – only Japan has done worse. As the Chancellor pointed out in the Budget, productivity is the route to raising living standards. Even if measured differently – as a result of having a higher unemployment rate, for example - it must be galling to see France, with its 35 hour week, deliver greater productivity gains than the UK.

And if we had matched the US for productivity growth, our economy would have grown at a consistently better rate than has been the case… and this adds up t a significant gap when compounded over several years.

Currently, UK real wages eight years on are essentially at the same levels as pre-crisis... it is no great surprise that many people feel disconnected from the economic recovery.

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This really matters because the world is no longer in a phase where we can rely on a rising tide that lifts all boats including our own. There is an emerging "trend to zeroes": in growth rates; real and nominal interest rates – almost 50% of the JP Morgan Government Bond Index has one-year yields below zero; in inflation and real wage growth, and in productivity.

We are entering the next phase of experimental monetary policy – "magical realism" delivered by central bankers with superpowers – but the economic policy levers are in fact very limited… we are already seeing competitive currency devaluations… and they are likely to continue.

Einstein was right that we need new thinking…but we need better thinkers <u>and</u> better doers.

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Part of the new thinking has to involve making much better use of all the talent available to us, male and female.

This "glass ceiling index" is from the Economist. It is a terrific diagnostic tool… you can adjust the weighting of different indicators – for example the male-female wage gap, or cost of childcare – and it will rank the OECD countries.

We can debate the importance of the different indicators, but here, for illustrative purposes, I have given all of them roughly the same weighting… The UK still comes sixth from the bottom.

We can speculate about the reasons for this… as a father of five clever and ambitious daughters, I have a few thoughts:

- First, schools don't instil enough ambition in girls: the aim is to pass exams – which is necessary but not sufficient. Boys will often say "I want to be a leading software designer, or whatever their goal is. Too often, girls are encouraged to think no further than "I want to get 3 As". We need more sense of lifetime career ambition.

- We need much better skills from school onwards – whether as a result of universities or apprenticeships. This is not gender-specific, but vital if we are to thrive in a digital world. At the moment, graduates joining L&G have to be effectively re-programmed. We can do better.

- The campaigners for women in the workplace focus, I think, disproportionately on the very top jobs, particularly non-executive directorships. It matters, and we know a more diverse board can improve a company's performance. But, as with men, most women don't become Board directors… we need to work on participation and productivity throughout the organisation, and long-term change starts much lower down the ladder, in executive mid-careers and particularly at the "T-point" where specialists broaden out to become senior managers…

- This sometimes coincides with having children and care issues – we have to get better at this, and particularly about how we manage re-entry into the workforce. From observation I know this can be a difficult moment when confidence issues can arise.

- Getting this right results in cultural change, and institutional investors like Newton and L&G play a leading role encouraging investee companies in the right direction through engagement by our corporate governance or ESG teams.

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We also have to lead by example: here you see what we have been doing at L&G: progress at the Board level where we recently appointed Julia Wilson as our Senior Independent Director.

…But also at the executive and management levels: not just the more traditional female roles like HR, but also financial, investment, COO and technology roles.

LGIM, our investment management business, is particularly noteworthy – three years ago there were no senior female fund managers – now our EMEA distribution side is run by three exceptional women, headed by Sarah Aitken, and the senior distribution person in Asia is also a woman, Janice Wu.

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One very important demographic reason for increasing female participation is our globally ageing population – we are getting greyer in every continent except Africa… as the proportion of working-age people falls, and especially in Asia, we cannot afford to under-use the talent of half the population…

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…Here you see the changing shape of the population in the UK as the large cohort of late baby-boomers – today's 55 year-olds – reach retirement by around 2025, with fewer working-age people coming through to replace and support them, and a deterioration of the dependency ratio as a consequence.

I have already mentioned Japan's poor productivity… and we saw from the "Glass Ceiling" tool that Japan also comes bottom of the OECD league for female participation. The table here also shows Japan as the outlier in terms of ageing… a dependency ration shifting from 12.2 times in 1950 to an estimated 1.8 times by 2030.

No wonder Prime Minister Abe has said that his “arrows” of economic reform depend, in part at least, on increasing female participation… the alternative is greater migration of younger working people from other countries into Japan – historically not a politically popular alternative… but now an economic necessity.

To a lesser extent we see that in the UK too. The significant majority of new jobs created since 2008 have been filled by people not born in the UK, or whose parents were not born in the UK. It is a controversial point, and it is part of the mix of issues behind the EU referendum. But it is surely not controversial to say that we need skilled workers… not just to do the jobs, but also to pay taxes which support the health and pension systems for an ageing population… and if we can’t fill the vacancies with British women, we will see a continued rise in migration. UK education has to become a destination for talent… we are losing out to the US.

So this is not just a moral issue or a question of doing the right thing… it is a utilitarian or economic imperative.

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Climate change is similarly both a moral and an economic issue. As with female participation in the workforce, there is no issue about having the capacity to address the issue: the sun delivers 5,000 times more power to the surface of the earth than the human race needs… The issue again is what mechanisms we need to put in place to harness this energy.

The “Two degrees of change” – in this case 2 degrees centigrade - will be upon us by 2035 unless we take urgent steps to reduce energy-related CO_2 emissions. The UK has just passed the point where more energy is generated from renewables than from coal. This has been achieved by phasing-out old coal-fired plants… but we are only at the beginning of the journey to cheap, clean and green energy.

It has not been a wholly straightforward journey so far. At the heart of it is the difficult issue of the “trilemma” – how to combine reliable supply, without risk of “brownouts”, plus environmentally friendly generation that helps meet our carbon commitments, plus doing so at an affordable price.

The issue is not just about generation... we need to be working on more efficient transmission and storage, as well as on more energy-efficiency at the point of use. New housing has to be more energy-efficient – like L&G’s planned modular homes which use cross-laminated timber materials and are about 70% more energy-efficient than the traditional UK model. And new urban regeneration needs to take account of the future potential for local mini-grids, battery storage and the possibilities for ground heat as well as fracking.

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Again, I believe that the principle driver of change towards low-carbon will not be moral pressure of intergovernmental promises like we saw in Cancun or Paris. It is a question of “Economics 1.01”.

Technological change has already got us to the point where renewables are competitive on a levelised cost basis – in other words across the lifetime of the generation facility. But there is further to go – the graph at the top left of the slide shows how the price of photovoltaic generation has come down – it is the equivalent of Moore’s Law in IT processing: a falling price and an exponential rise in capacity.

The same will happen in transmission and storage, particularly battery technology. We are at a stage today where “geeks are meeting money”: today’s smart thinkers and technologists started as students, solving student problems: e-bay was about buying and selling second-hand, Facebook was about chatting up potential partners… as they have grown up, people like Bill Gates and Elon Musk have moved on to grown-up problems: from Twitter to transport, from gaming to healthcare and energy.

Electric, digital cars are driving a revolution in battery technology, and in the UK, for example, National Grid has launched a large tendering process for battery technology – a precursor to a changed world where we do not rely to the same extent on the traditional “exoskeleton” of a single national grid through which all power flows.

As we move towards a more straightforwardly economic approach to cheap, clean, green energy, we will have to move away from distortions and subsidies and let the market and technology force the changes we need.

Amber Rudd has done the right thing by moving in this direction in the UK – but if we look globally, there is a complex web of subsidies – some for green technologies, but still an incredible $544bn of subsidies for fossil fuels in the OECD countries. Some of these are hard to wean off, as they are core to particular economies – the North Sea is our example. But they do need to come down.

What is particularly stunning, I believe, is the extent to which subsidies for existing assets and technologies outweigh R&D expenditure. These figures, from the global Apollo Programme, headed by a cast of distinguished experts including Lords Nicholas Stern, Adair Turner and Gus O’Donnell, show a mere $6bn of global government expenditure on research on renewables…

This is symptomatic of a bigger problem – the tendency to invest in existing assets, thus inflating prices and causing potential asset bubbles, rather than creating new assets.

At L&G, we are trying to change this – as well as our investments in housing and urban regeneration – our pipeline of homes being built or financed is now 75,000… We are investing in clean energy…. Wind and solar.

This complements the work done with investee companies by LGIM’s ESG – Environmental, Social and Governance – team headed by Sacha Sadan. Meryam Omi, who is a senior member of that team and who taking part in this conference today, has been a key influencer both in developing our policies on climate change and gender diversity engagement with investee companies, as well as developing policy and product insights for our investor clients, covering green financing opportunities, clean energy investment opportunities and broader environmental solutions including those involving clean water and waste reduction.

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The problem of investing in the old, rather than the new, is one that has been exacerbated by Quantitative Easing. Here you see, for the UK, the increase in liquidity, effectively from money-printing, but the corresponding decline in broad money.

Central bankers saved the world in 2008, but we are left with the wrong sort of liquidity. As a result, there has never been so much money available, so cheaply, and yet so badly allocated.

The time is right for a re-allocation away from traded debt instruments and synthetics of the type that brought us the credit crisis and towards investing in real assets, including energy and infrastructure and creating real jobs… and long-term funding including equity.

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…And here you can see what L&G is doing in this respect…in regeneration, housing, energy , transport and healthcare. We firmly believe that long-term institutions like ourselves have to lead by example in this – but it is not just altruistic: the risk-adjusted returns are attractive in a world where we are heading towards zero or in some cases negative interest rates.

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We want to bring together some of the ideas we are talking about today to help create environmentally efficient, digital cities that will provide the jobs and infrastructure for an inclusive, skilled workforce.

Our financing and investment for Media City and Salford is one example, as are the regeneration projects we are undertaking in Leeds and Cardiff, shown on this slide.

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Bringing these themes together, and coming back to productivity, we can see the challenge: the blue line on this graph shows how, over a century starting from 1770, the first machine age drove up UK productivity and hence real wages, as technologies including steam, electricity, and rail came on-stream.

The dark blue line starts in 1970 – what it shows in the US, is that as we enter the second digital machine age, we have not seen a corresponding rise in real wages.

While the relentless rise of business and the global capitalist model has been hugely successful in eliminating extreme poverty around the world over the last generation, the benefits are less obvious to the less well-off people in richer countries, many of whom feel excluded and are drawn to more extreme forms of politics as a consequence.

Digitalisation, big data and the internet of things will create further challenges as well as further opportunities, and we are at an early stage of figuring out the answers.

But what is abundantly clear to me – and this is why Helena’s initiative in organising this conference is so important – is that we will not even get to ask the right questions and engage people in the right debate unless we tackle some of these productivity issues – by enabling all our talent, male and female, to flourish in the workforce, and by investing in the right, climate-friendly environment for that to happen.

I’d now be very happy to take any questions or points you may have.