LONG FINANCE SPRING CONFERENCE 2013

"How To Innovate, What To Regulate: Achieving Real Change On The Road To Long Finance"

Introductory Remarks

Professor Michael Mainelli, Executive Chairman, Z/Yen Group Limited

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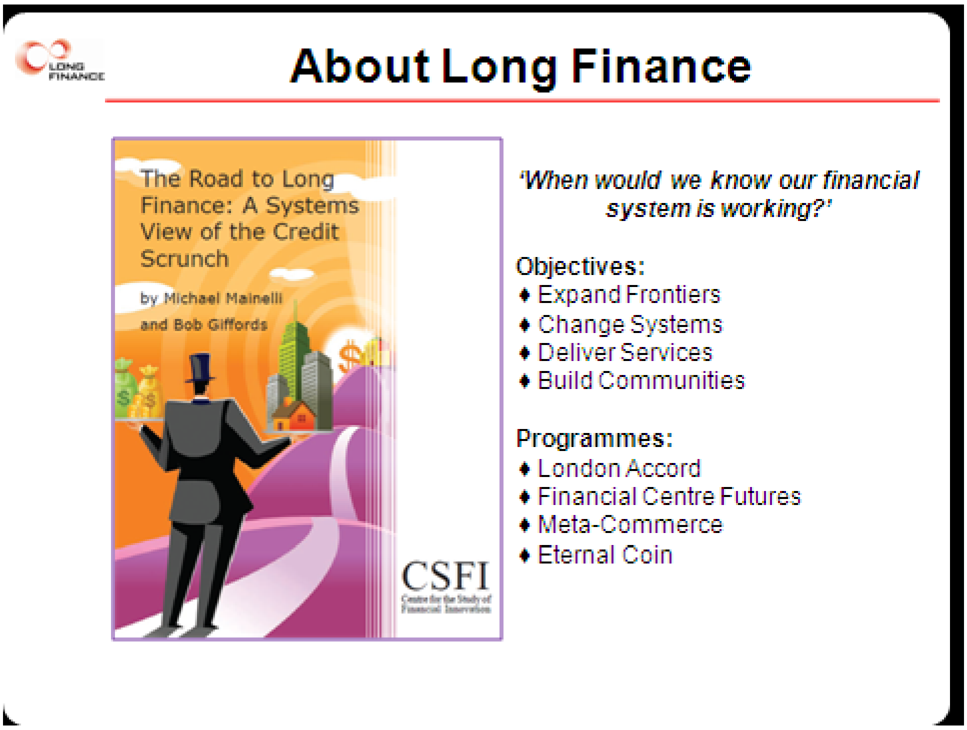
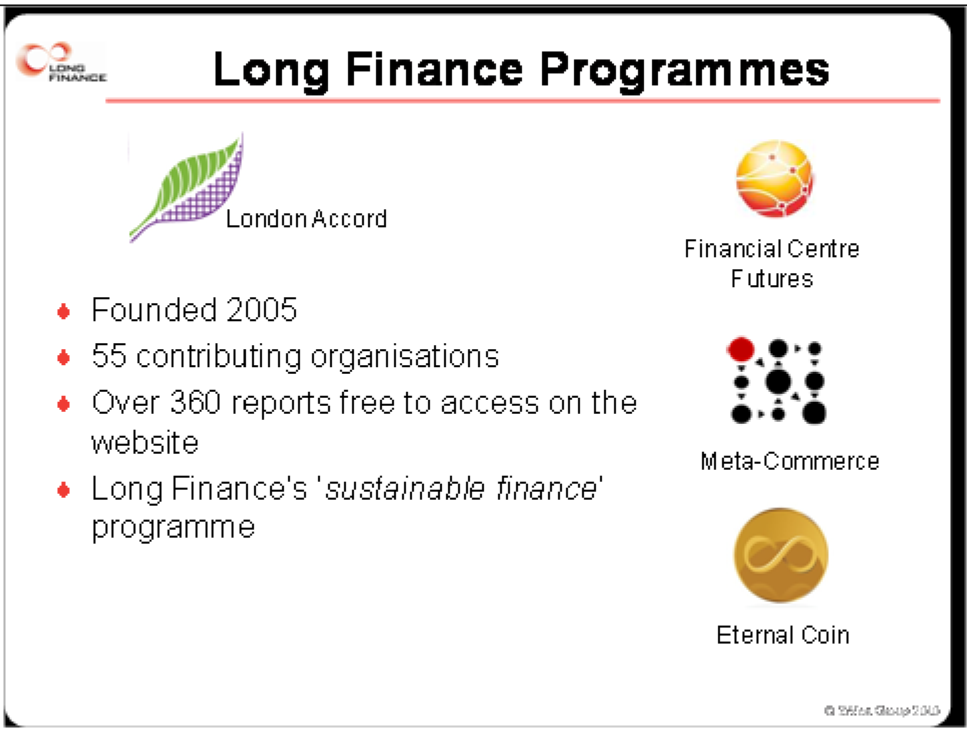
Bank of America Merrill Lynch

London, UK

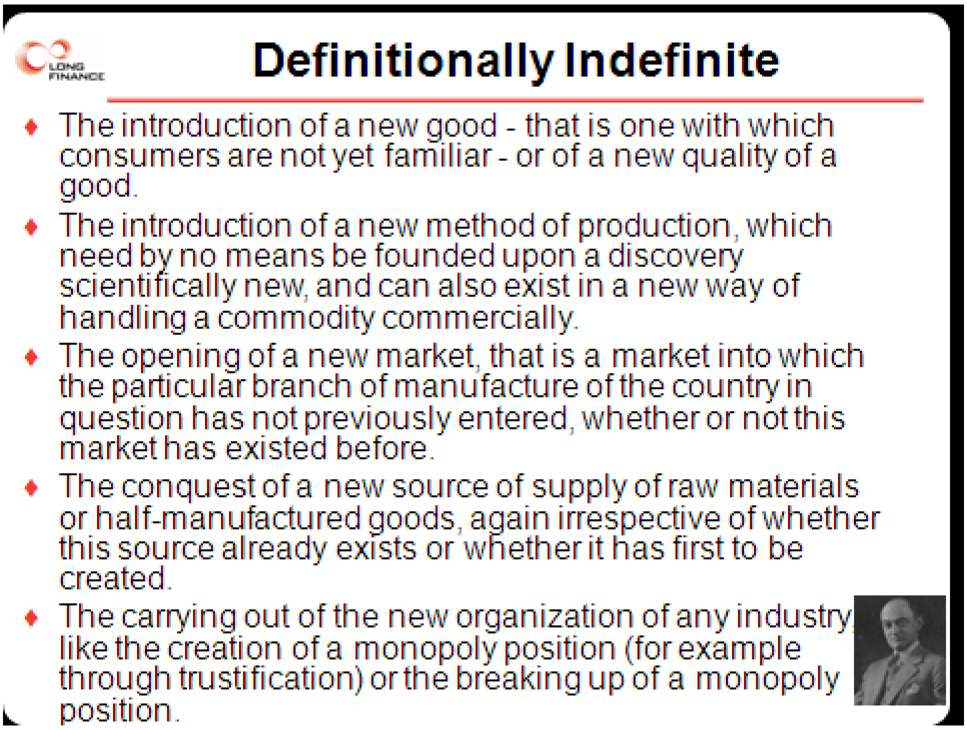
Good afternoon Ladies and Gentlemen, and welcome to the 2013 Long Finance Spring Conference. Since Long Finance and London Accord began back in 2005 we've had over two hundred events, all free to the public, but the Spring and Autumn conferences are special as we meet in a large group for half a day and explore one topic. These conferences especially try to meet two of our four objectives, expand frontiers and build a sense of community.



I actually worked on strategic planning in this building back in the 1980s when it was the General Post Office, so I would like to open with thanks to Matt Hale, Kegan Lovely, Maureen Murphy and the Bank of America Merrill Lynch team for hosting our conference a third time here in these now much-lovelier premises, as well as thanking our other sponsors, Gresham College and the City of London Corporation for their generosity.



We began Long Finance with a question, "When would we know our financial system is working?" Today we are going to attempt to explore simultaneously some of the expanding frontiers of innovation with some of the restricting boundaries of regulation. This tension is an essential part of the financial system. Let's look first at innovation.

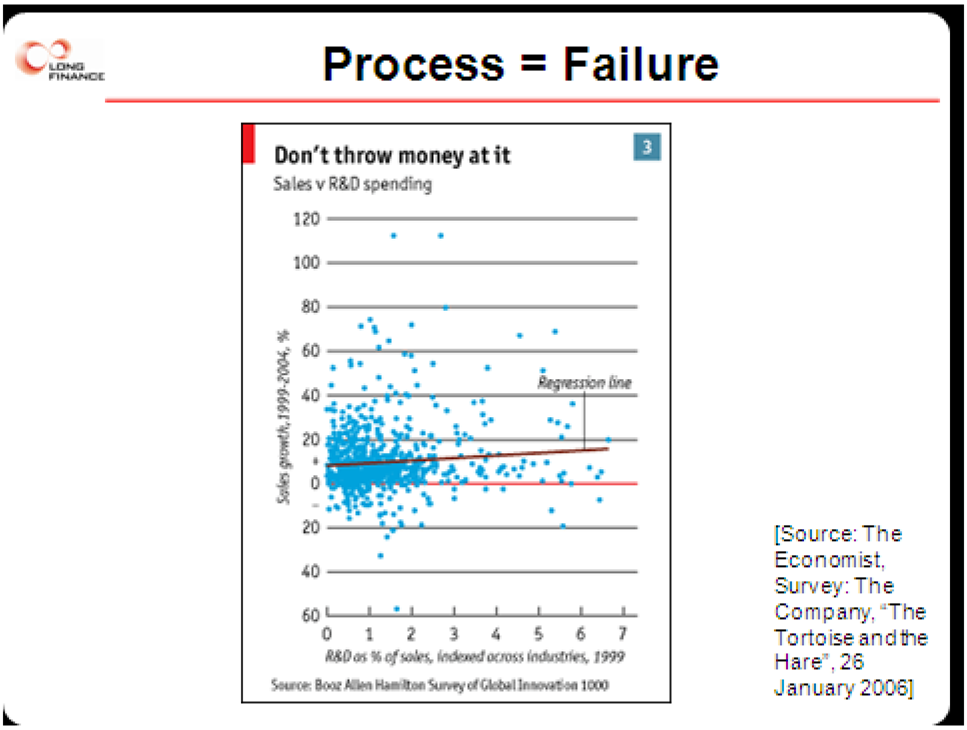


Without technological change, advancement in productivity and therefore GDP would be limited to increasing labour and material productivity, finite sources of improvement. Joseph Schumpeter initiated evolutionary economics in 1942 with his concept of 'creative destruction'. Creative destruction means simply that markets create new things through innovation that must displace existing things. To Schumpeter, entrepreneurial innovation sustained long-term economic growth, while simultaneously destroying the value of established companies that enjoyed some degree of monopoly power.

Schumpeter tried to define innovation, but wound up seeing all change as potential innovation. Numerous people distinguish invention from innovation. Invention is having a great idea that might be practical; innovation is introducing it to the world. Of course, we then find ourselves having to distinguish between unique innovations, virtually unique innovation (sic), revolutionary innovations, virtually revolutionary innovations and just bog-standard improvements. As Oscar Wilde said, "Imagination is imitative – the real innovation lies in criticism." Execution matters more than invention.

For OECD statisticans, nothing is an innovation until people buy it – innovation is about making a difference in the marketplace. New inventions that aren't commercialised aren't innovation. If a new invention is commercialised, but unsuccessfully, it isn't a lasting innovation. If one company is superior to its competitors, that's because it is innovative. If a company fails, that's because it wasn't innovative enough. Thus, every commercial success is an innovation. Every novel wrapper for a burger, every new phone-answering phrase, every inventive internet click function, every new fashion accessory. Momofuku Ando, inventor of instant noodles, is as important as Thomas Edison.

This conflation of innovation with success is especially surprising as it has long been recognised that failure is an important part of learning and innovating. George Chapman (1559-1634) noted in the 16th century that "Pure innovation is more gross than error", while in the past century, Woody Allen quipped that "If you're not failing every now and again, it's a sign you're not doing anything very innovative." Another question of interest came up preparing for today – can we distinguish good financial innovation from bad? I wonder if bad financial innovation can be spotted when people make money far too easily, CDO's, payment protection insurance, endowment mortgages?



Where is the fountain of innovation? To quote The Economist on Robert Solow's two seminal papers on growth in 1956 and 1957, "invention, innovation and ingenuity were all "exogenous" influences to [technological progress]" [The Economist, Economics Focus: "The Growth Of Growth Theory", 20 May 2006, page 96]. Of course, many economists find the nature of money exogenous to economics, so perhaps ignoring the awkward question on the source of innovation is also unsurprising.

Which reminds me of two economists who notice two men yelling from doorways across the street at each other. "Of course they will never come to agreement", states the first economist. "And why is that?" inquires his companion. "Because they are arguing from different premises."

Managing innovation is troublesome. Large R&D processes in industry are certainly not conclusive successes, as this slide indicates. Large R&D processes in government are worse, and I speak as someone who was helping manage about 40% of UK government research in the 1990s. Government and professional commentators are particularly bad at spotting winners. William Sherden, in his delightful book The Fortune Sellers, tears apart any structured ability of government or private 'futurologists' to spot winners in science or technology.

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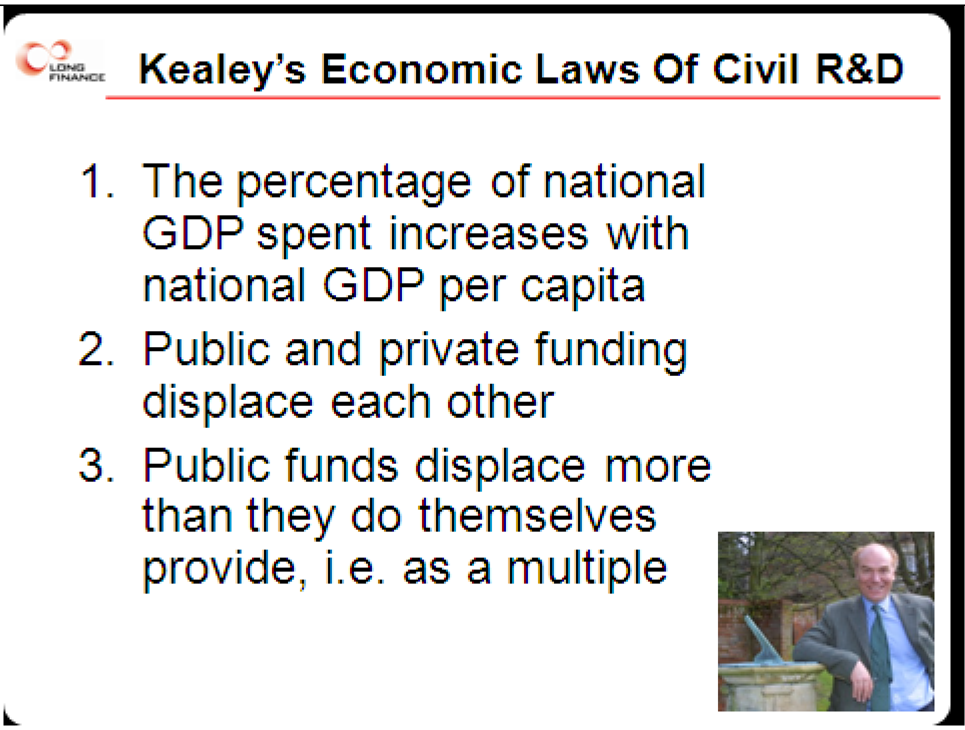
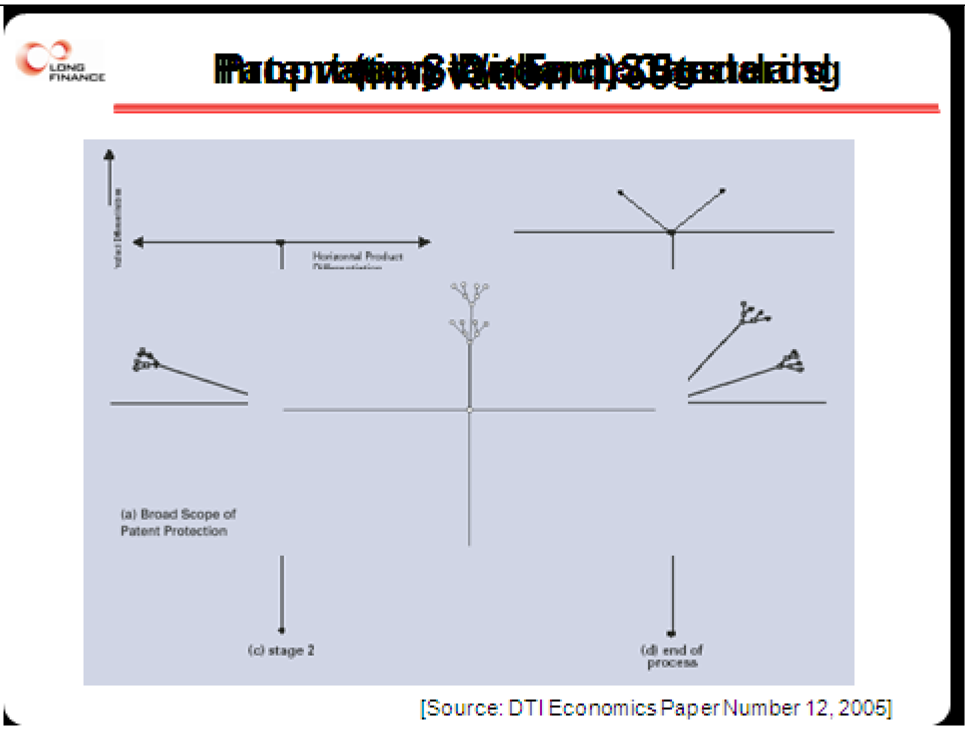


There are two religious sects on innovation, top-down versus bottom-up. In the top-down sect, policy and planning lead to new innovations. In the bottom-up sect, you have no idea from where the next big idea will come. Large organisations are not good at innovation of the top-down variety, but bottom-up innovation means headquarters has no idea from which wild quarter the next big innovation will arrive, a very uncomfortable situation.

Of all the firms in the ecosystem, by far the ones that keep it going, as bacteria, fungi, beetles and worms do in biological ecosystems, it is the little folk that matter. Governments are particularly bad at dealing with lots of little firms when they think one big champion could do. Terence Kealey, now Vice Chancellor of the University of Buckingham, set out three economic laws of funding Civil R&D [Kealey, 1996, pages 245-250]. He concludes that public sector research displaces private sector research as a multiple, thus private sector research is to be preferred. The paucity of government funding for financial R&D until very recently may well be why finance has been so innovative, and also why finance R&D spend is small – it doesn't get recorded for tax purposes. Recent interest by government in financial R&D may well take that industry down the same policy route that led to defunct, electronics, computing and aerospace industries in the UK.



Let's turn to regulation. Standards and regulation government play an enormous role in innovation. This diagram's vertical axis represents vertical product differentiation, i.e. the higher up the diagram the greater the performance or functionality. The horizontal axis represents horizontal product differentiation: points along a horizontal line in this diagram represent products of different design and configuration but of roughly comparable functionality. Product and service innovations can fill this space. Starting at point (a), a big innovation opens up a new area of technological space, so new and revolutionary that people can only find horizontal differentiation for the moment (colours and shapes). In (b) two subsequent innovations, drawing on the basic standard, develop in two orthogonal directions. In (c) each of these innovations spawns two further innovations. The forces of product innovation build a rich canopy of competing products and services of differing technological characteristics leading to (d).

[SLIDE TRANSITION – Innovation without standards] Without standards the tree develops rather evenly across the canopy, but tremendous effort is expended, opportunities for economies of scale are missed and innovation is duplicated. [SLIDE TRANSITION – Patent or standard clustering] Standards, and pseudo-standards such as patents, encourage more rapid functionality development, but at what cost and what missed opportunities? Too early standardisation leaves the innovation space unexplored. Too late standardisation leads to much wasted effort filling the space. [SLIDE TRANSITION – Proprietary standard] With a *de facto* standard that approaches a monopoly, large areas of innovation space are unexplored. Greater confidence in a standard or *de facto* standard by consumers and producers may lead to rapid advance, or equally monopoly rents and technology lock-in.

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If evolution applies to markets then perhaps the biggest innovation policy is to encourage biodiversity in finance. Biodiversity means not leaping in too early with standards and regulations. Biodiversity means lowering risk and increasing reward for entrepreneurs. Improved biodiversity also means improved infrastructure quality, e.g. through universally improved education. Most importantly, biodiversity means encouraging competition, so that one type of firm does not unnaturally predominate. Biodiversity requires aggressive anti-monopolies enforcement. Encouragingly, the new Financial Conduct Authority, unlike the FSA, is charged with encouraging competition, 14 years after Andrew Tyrie's 1999 paper, "Leviathan at Large", warning of the dangers of too much concentration in banking, let alone audit or credit rating.

From cybernetics, I would add Ashby's Law of Requisite Variety to our discussion. Ashby's Law states that for appropriate regulation the variety in the regulator must be equal to or greater than the variety in the system being regulated. Or, the greater the variety within a system, the more regulation will reduce its variety. Significant government direction inevitably reduces essential variety.

In summary, I expect us to touch on some of these themes today:
- defining innovation;
- sorting out the good from the bad;
- learning from failure;
- setting out roles for governments and standards;
- encouraging diversity and competition.

A previous Long Finance speaker, Professor Raj Persaud, pointed out a hard truth back in 2006 – "no matter how hard you're prepared to work, and I'm sure you're all very industrious individuals, there are millions of people in India and China willing to work harder than you for about a tenth of the pay, okay? So as a national economy, for us to be competitive in the future in this world, we can't rely on resources, and we can't rely on hard work. What are we going to rely on? We're going to have to rely on innovation, being different, and being creative." And that need for innovation certainly applies to finance in London today.

Agenda

14:30 – 14:35	Welcome - Matt Hale, Bank of America Merrill Lynch
14:35 – 14:45	Introduction – Professor Michael Mainelli, Z/Yen Group
14:45 – 15:15	Keynote: ***"Financial Innovation: The Bright and Dark Sides"*** - Professor Thorsten Beck, Tilburg University
15:15 – 15:55	Panel: ***"Financial Innovation: the Good, the Bad and the Ugly"***
15:55 – 16:20	Break
16:20 – 16:35	Presentation: ***"Investment Opportunities in Green Technology"*** – Rt Hon Gregory Barker, Minister of State for Department of Energy & Climate Change
16:35 – 17:20	Panel: ***"Six Degrees of Innovation: Investing in Green Technology"***
17:20 – 17:30	Closing remarks
17:30 – 18:30	Reception

So an amuse-gueule for today's agenda. We're following our usual format of two speakers, one long and one short, each followed by a panel. On each panel I'll ask the panellists to make one big point in two minutes before we move to open discussion with you, our Long Finance community. You already have information on the speakers, so with no further ado I'd like to ask our keynote speaker, Professor Thorsten Beck, who has come over from Tilburg today to address us and challenge our panel on "Financial Innovation: The Bright and Dark Sides".

Thank you.

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