THE FINANCE INNOVATION LAB

THE BIGGER PICTURE

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Foreword

We humans like markets. We like exchanging things; it's what we do. Markets in their widest sense achieve goals that we could never accomplish by ourselves. But they should serve our needs and those of the planet we live on, not control them. So while it is true that 'if it isn't broken don't fix it' it is also true that if it is broken you might not want to fix it either. You might want to start again.

The financial crisis didn't show us that markets had failed us, but that the market arrangements in place had. Debt and credit, financing of trade, hedging of risk and so on are all necessary, fundamental even, to economic success. However, it seemed that the agents of these functions and their implementation had somehow broken down and lost control.

Coupled with that, and in no small part fuelled by it, we are now witnessing a collapse of public trust in our institutions. Just look at the Edelman Trust report 2012 where the most trusted of our institutions (non-government organisations) command only 50% of public trust. Respected commentators such as Naill Fergusson and Diane Coyle have written and spoken convincingly about this loss of trust and the need for institutions that are fit for purpose.

So if the system is broken then the opportunity now exists to change behaviour; to rethink the 'why' of the financial system: redefining what we mean by prosperity to include a sustainable planet and vibrant societies. In so doing we can raise questions about who are or should be the actors in the system, how they operate and what they do.

This is what we set out to do with The Finance Innovation Lab and *The Bigger Picture* seeks to outline the basis of our thinking around the nature of the problem. Several other documents have been or will be published that describe in more detail what The Finance Innovation Lab is and how it works; what our strategy is; and what is our theory of how change happens.

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January 2013

Acknowledgements

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With special thanks to our contributors Vicky Chick (UCL), Tony Greenham (nef), Alice Chapple (former Director, Sustainable Financial Markets at Forum for the Future), and friends and family of the Lab, James Featherby, Sarah Adams and Ilana Taub, who have contributed to its content.

THE FINANCE INNOVATION LAB

THE PICTURE

Why we created The Finance Innovation Lab

1

Why do we need The Finance Innovation Lab?

We believe the financial system in its current form does not and cannot sustain people and planet. Trends that humanity faces at this unique point in history serve to compound this problem and prevent the system from delivering value in the future.

We recognise that over the last century, the financial system has delivered great benefits to people and nations. It has increased their wealth, freedom, safety and health and we believe that in the future it will play a very important role in the transition to a more sustainable world.

However, we need a better financial system. One that is 'fit for purpose' – that works within environmental limits, one that builds trust, one that includes people, and one that supports human well-being and happiness.

The Finance Innovation Lab is designed by ICAEW and WWF-UK to incubate and accelerate new forms of prosperity, for people and planet. We believe that solutions will come about as a result of people from within and outside the current financial services industry working together to build new parts of a financial system that demonstrate what a better system could actually look like.

In this publication we share the challenges that prompted us to launch The Finance Innovation Lab. We use evidence gathered over the years since we began, to explore how these problems have been built upon by a wide range of prominent thinkers since the crash. This is a record of our thinking at the start of 2013 and we are certain this will continue to develop over time.

In **2 The Big Picture** we do this by looking first at some of the wider systemic issues we saw. These are:

- Cost of environmental degradation
- End of cheap resources
- Erosion of trust
- Financial exclusion
- Well-being and happiness
- Are we measuring the right things?
- Current economics fail to reflect reality.

We also invite two leading thinkers, Alice Chapple and Vicky Chick to share their perspectives on how the financial services sector fails to meet the need of people and planet.

In **3 Picture This** we share a vision for the financial system we want, crowd-sourced from our diverse Finance Innovation Lab community. Characteristics include:

- Resilient
- Transparent
- Sustainable
- Trustworthy

- Inclusive
- Integrated
- Principled.

We then explore points of leverage in the existing system, where innovation could lead to real change. These are:

- Values and leadership
- Education
- Governance
- Money and value
- Locally directed investment
- From risk to resilience
- Impact
- New business models.

THE FINANCE INNOVATION LAB

THE BIG PICTURE

Exploring the challenges we face

2

Systemic change is needed

Here we explore some of the wider systemic flaws that mean we radically need to transform the way the financial system works.

Two leading thinkers then share their perspectives on how the current financial services sector fails to meet the need of people and planet.

Firstly, Alice Chapple (former Director, Sustainable Financial Markets at Forum for the Future), explores how the six major functions of the financial system, as delineated by economists Robert Merton and Zvi Bodie (1995), prevent the delivery of a system that really sustains people and planet.

Secondly, Vicky Chick, Emeritus Professor of Economics at UCL, explores the failings of our banking system. She looks at how money is created and how the role of banks has evolved over time. She argues for the role of government in regulating banks and the creation of money and warns that we must be prepared for its failure to do so.

The challenges

Below, we explore a range of issues that exemplify the breadth and depth of these challenges. They are:

- Cost of environmental degradation
- End of cheap resources
- Erosion of trust
- Financial exclusion
- Well-being and happiness
- Are we measuring the right things?
- Current economics fail to reflect reality.

Cost of environmental degradation

'We must always remember that our economy sits within our ecology, not the other way around. If there is no ecology, there is no economy. ' (Nick Jankel Elliot, We Create, 2010)

Put simply, the destruction of our ecology will have an economic impact on us all. The Stern Review (2006), commissioned by the UK government to assess the economic cost of climate change, was the first to suggest that a two to three degree Celsius rise in temperature could reduce global economic output by 3%.

The Economics of Ecosystems & Biodiversity Study (2008) put the annual economic cost of forest loss at between US$2tn and US$5tn. This means that the global economy is losing more money from the disappearance of forests than through the financial crisis.

While we may emerge from the current crisis, we face a 'perfect' storm of severe climate change, peak oil and a rapidly increasing world population with increasing demands for energy.

End of cheap resources

We know that we live in a resource-constrained world and have a rapidly growing world population. At some point this equation will no longer add up. The current economic model assumes that growth will go on in perpetuity, but these rates of growth and resource consumption are not consistent with the ecological limits.

We face peak oil prices and the end of cheap energy. Declining domestic reserves and production create a growing reliance on international markets that are concentrated in a relatively small number of regions. As the new economics foundation (nef) point out in their guide *The Great Transition* (2010) it is estimated that 62% of all known oil reserves reside in the Persian Gulf. According to Shell, by 2015 growth in the production of easily accessible oil and gas will not match demand and 'there is no ''silver bullet'' that will completely resolve supply–demand tensions'. UNEPFI estimate that transition to a low-carbon energy market will require investment of US$10tn between 2010 and 2020 (UNEPFI, 2010) and it is still unclear who will fund this shift.

Soft commodity prices are also being driven upwards by crop failures and speculation in the financial markets. Both of these will be exacerbated by superpowers and equity houses buying up vast tracts of Africa and Latin America and their resources. A study by The World Development Movement (WDM) (July 2010) argues that speculation in recent years has contributed to the spike in food and oil prices and made prices more volatile and cites the recent example of hedge funds depressing the price of coffee to show the potential for speculation to reduce prices.

At the same time our population is growing rapidly; as of 2011 we were past the seven billion figure. According to the United Nations (UN) this means we will need 70% more food. A study by the UN-backed Principles of Responsible Investment and corporate environmental research group Trucost, predicts that if left unchecked, these pressures will lead to the destruction of nature which could cost the world US$28.6tn (£18.2tn), or 18% of global economic output by 2050 (BBC News, 24 October 2010).

Each year, nef calculates the point at which humanity starts living beyond its means and names it Ecological Debt Day. In 2012 it was on 22 August. If we continue on a business-as-usual basis, the UN estimates we will be using the resources of 3.3 planets by 2050.

As Tony Greenham of nef explains:

> 'Our financial and economic systems were formed during an age of industrial expansion, where natural resources were abundant and there were always new territories to conquer. This is not our current context. But economics, corporate law, accountancy, banking, and financial services have not caught up with this new reality, they are largely unchanged since the industrial revolution. The challenge for economics in our current context is to work out how nine billion people can share in a high level of well-being without destroying our natural capital.'

In fact Alison George in *The New Scientist* (6 April 2011) argued that the world's population may even rise to 11 billion.

We believe we are living off the capital of the Earth, not the dividends that it generates. If a company were run this way, our shareholders would be well within their rights to sack us.

Erosion of trust

Finance and society are part of the same world and rely on each other in a symbiotic relationship. The bonds between these have been severely damaged by the financial crisis.

Greenham argues:

> 'While there may have been flaws in the old financial services sector, it placed great importance on the values of trust, honesty and integrity and there was a sense of greater purpose – that the sector served a vital purpose in supporting commerce and furthering the general wealth of the nation. The creation of financial value was primarily founded on relationships, not deals and whether as an audit partner, a corporate stockbroker, a merchant banker, or a solicitor, you traded on your reputation.'

However, we believe that today there is a strong public sense that the business world and the financial community in particular have abandoned values and ethical behaviour. As a consequence public trust is lost.

James Featherby, author of *The White Swan Formula* (2009), says:

> 'A business that imagines it operates in a vacuum, separated from the well-being of its customers, will sooner or later meet its nemesis. Commerce that seeks to extract maximum advantage, leaving no profit for others, eventually becomes self-defeating. It neither serves nor promotes the advancement of those upon whom, in the end, it depends.'

Some well-regarded thinkers have argued that the financial crisis has resulted in a public sense of outrage that has yet to find a language or intellectual framework to articulate itself or drive a new social contract. In business terms, as Ken Chenault, CEO of American Express puts it, 'The competitive advantage of trust has never been more important or more valuable.'

The financial community has a fundamental obligation to rebuild this trust, engaging with public concerns and demonstrating that it benefits society.

Financial exclusion

Economic inequality has now reached levels not seen for a century (D. Coyle, 2011). At least 80% of humanity lives on less than US$10 a day (World Bank Indicators, 2008), and half of the world's population do not have a bank account (Financial Access Initiative, 2009). The World Bank estimates that the financial crisis will lead to a 50% cut in capital flows to the developing world and a dramatic increase in infant mortality. So, the failure of the current system has had a negative impact on the world's most vulnerable people.

An estimated US$2tn has been spent by the UK and other European countries on rescues and bailout packages (www.globalissues.org, 2010) which arguably could have been put to better use. To put the figure into perspective, basic education for all would cost just US$6bn, water and sanitation for all US$9bn and basic health and nutrition for all, $13bn (www.globalissues.org, 2010).

However, financial exclusion is not a problem only of the developing world. Britain has become an increasingly divided nation, where the richest 10% of the population are more than 100 times as wealthy as the poorest 10% of society (The London School of Economics, January 2010). Many in the West are also excluded from the existing financial system.

Of adults in the The Western European Union 10 member countries (EU10), 47% do not have a bank account and many more have no savings or access to credit (European Social Watch Annual Report, 2010). A study in 2009 found 26% of US households, close to 30 million, are either unbanked or underbanked, with 60 million adults residing in these households (FDIC, December 2009).

We believe that a financial system that sustains people and planet would be an inclusive one.

Well-being and happiness

Despite massive material progress, people in Britain and the US are no happier than they were 50 years ago (GfK NOP, 2006). A study undertaken at the University of Liège (J. Quoidbach et al., 2010) found that once we escape the trap of poverty, levels of wealth have an extremely modest impact on levels of happiness, especially in developed countries. Yet the financial system encourages ever increasing levels of consumption.

Why should this be? nef argue that many of us in the developed world face what they call a 'hedonic treadmill', where we have ever increasing expectations paired with a persistent dissatisfaction of never seeming to have enough (*The Great Transition*, 2010). The Liège psychologists propose that because money allows us to enjoy the best things in life, we actually decrease our ability to enjoy the mundane joys of everyday life. Since most of our joys are mundane, our ability to splurge actually backfires. We try to treat ourselves, but we end up spoiling ourselves. (*Wired*, July 2010)

nef argue that:

> 'more significant to our long-term happiness are things like raising children, socializing, participating in cultural life, caring for relatives or friends and having a sense of meaning and purpose. The things have little to do with material possessions… In fact materialistic people suffer worse outcomes across a range of domains; happiness and satisfaction, mental health, social relationships amongst others.'

The founders of Action for Happiness, a social movement launched in 2011 in the UK, agree. The project was set up by Richard Layard, a Labour peer and professor of economics at the LSE, Geoff Mulgan, Chief Executive of NESTA and Anthony Seldon, Master of Wellington College, to prioritise healthy relationships with others and meaningful activities as a means to happier living. They call for a 'rejection of a societal focus on materialism and self-obsessed individualism'.

We believe that the happiness of the prosperous is connected to the financial system. Simon Walker says, in his book the *Undefended Leader Trilogy* (2011), 'the market works by creating desires that are fulfilled only briefly in order to sustain relentless demand.' He goes on to quote Durkheim's work *Suicide*, 'To pursue a goal which by definition is unattainable is to condemn oneself to a state of perpetual unhappiness.'

Are we measuring the right things?

GDP is the primary measure used to assess the progress of nations, yet this tells us 'nothing about the "quality" of economic activity that is happening within it' (Hazel Henderson and Frijof Capra, *Qualitative Growth*, 2009). We dispute the use of GDP as a good measure of progress.

As the author George Monbiot said, 'a train crash which generates £1bn worth of track repairs, medical bills and funeral costs is deemed as beneficial as an uninterrupted service which generates £1bn in ticket sales.' (*The Guardian*, 2010)

The idea that GDP is a poor measure of useful economic activity has gained international support in recent years. Former President Sarkozy's Commission on the Measurement of Economic Performance and Social Progress highlighted it, as did the EU's Beyond GDP project. However, this is not a new idea. This is an excerpt from a speech given by Senator Robert F. Kennedy in 1968, at the University of Kansas:

> 'GDP…does not allow for the health of our families, the quality of their education, or the joy of their play. It is indifferent to the decency of our factories and the safety of our streets alike. It does not include the beauty of our poetry, or the strength of our marriages, the intelligence of our public debate or the integrity of our public officials… the Gross National Product measures neither our wit nor our courage, neither our wisdom nor our learning, neither our compassion nor our devotion to our country. It measures everything, in short, except that which makes life worthwhile.'

The financial services sector is inextricably bound into whether such a rethink can be achieved. It both supports and encourages economic growth through financing consumption and investment of governments, businesses and individuals the majority of which is at the expense of longer-term environmental and social factors.

Current economics fails to reflect reality

There is an influential and growing body of thought that suggests the certainties of the old neo-classical economic theory are gone. Orthodox neo-classical economics presumes a self-correcting mechanism, that financial markets achieve equilibrium and stability. It also assumes that people make rational decisions about money.

We believe that people and markets do not behave according to these assumptions and that we need to re-think the way we analyse our financial system.

Behavioural economics points to a number of fundamental flaws in neo-classical economics. As nef say in their 2005 publication on the topic, 'standard neoclassical economic analysis assumes that humans are rational and behave in a way to maximise their individual self-interest' (nef, 2005). But in fact studies have shown, and what common sense tells us, is that we do not act rationally. For example, 80% of people would save money at the gym by paying per visit but sign up to monthly membership anyway (S. DellaVigna and U. Malmendier, June 2006), and cab drivers ignore the profit-maximising strategy to work longer hours on rainy days and set a target earnings level for each day instead. (Camerer et al., 1997)

Furthermore, neo-classical economics treats the financial system as a linear or 'complicated' system, somewhat like a car. If a car fails, you can take it apart and find the cause of the problem and 'it's possible to make accurate predictions about how a complicated system will behave.' (*Harvard Business Review*, September 2011)

But we believe that the financial system behaves more like an ecosystem than a car. Ecosystems are largely accepted to be examples of 'Complex Adaptive Systems'. They are 'composed of interconnected parts that as a whole exhibit properties not obvious from the properties of the individual parts' (C. Joslyn and L. Rocha, 2000) and display characteristics such as these (P. Cilliers, 12 February 1998):

- Interactions that are non-linear, which mean that small causes can have large results.
- They are open and it may be difficult or impossible to define the system boundaries.
- They operate under far from equilibrium conditions.
- Elements in the system are ignorant of the behaviour of the system as a whole responding only to what is available to it locally.
- The number of elements is sufficiently large that conventional descriptions are not only impractical but cease to assist in understanding the system.
- Any element in the system is affected, and affects several other systems.

In such systems, ‘a failure in one or more components can lead to cascading failures, which may have catastrophic consequences on the functioning of the system’ (S. V. Buldyrev et al., *Nature*, 2010), as exemplified, we believe, during the recent financial crisis.

As Michael Mauboussin, Chief Investment Strategist at Legg Mason Capital Management, recently said in the *Harvard Business Review* (September 2011), ‘complexity doesn’t lend itself to tidy mathematics in the way that some traditional, linear financial models do.’

In fact, ‘from ecologists to engineers, from geneticists to geologists who use complexity theory, the evolution of the financial system would have set alarm bells ringing’, said Andrew Haldane, Executive Director, Financial Stability of the Bank of England in his seminal speech delivered at the Financial Student Association, Amsterdam in April 2009.

In such systems Haldane argues ‘complexity plus homogeneity did not spell stability; it spelt fragility and what had emerged during this century was a financial system exhibiting both greater complexity and less diversity. ’This pattern, he argues, was never going to be sustainable.

Behavioural economics and complexity theory are evolving, but they do point to a need for a re-think of the way we analyse our financial system. More work is needed to develop the tools to fit this reality.

‘The finance system won’t deliver sustainability.’

Alice Chapple, former Director of Sustainable Financial Markets, Forum for the Future, explores each of Merton and Bodie’s functions and elaborates on the obstacles that prevent the delivery of a system that really sustains people and planet.

The financial services sector has simple origins. It was a facilitator of trades and the saving and lending of money and transactions were and still are, built on trust and confidence between exchanging parties.

However, the modern finance system has developed further applications. Indeed economists Robert Merton and Zvi Bodie (1995) famously delineate the following six major functions:

1. To provide ways of clearing and settling payments to facilitate trade.
2. To provide a mechanism for the pooling of resources and for the subdividing of shares in various enterprises.

3. To provide price information to help coordinate decentralised decision making in various sectors of the economy.
4. To provide ways to transfer economic resources through time, across borders, and among industries.
5. To provide ways of managing and sharing risk.
6. To provide a solution to the problems of asymmetric information and contradictory incentives when one party to a financial transaction has information that the other party does not.

1. To provide ways of clearing and settling payments to facilitate trade.

Problem: many transactions by the finance sector simply increase 'churn' in the financial markets, generating wealth for proprietary traders but of little lasting value for the economy. For example, the global market in derivatives rose from US$41tn in 1997 to US$677tn in 2007. While appropriate hedging to mitigate business risks such as exchange rate movements will always be important, the sheer volume of these derivatives solely traded within the financial community created substantial downside risk to the economy when those contracts were unravelled.

In 2011, Andrew Haldane of the Bank of England warned of the dangers posed by so-called 'flash trading' by high-speed computers. High-frequency trading (HFT) has been blamed for exacerbating intra-day swings and putting ordinary investors at a disadvantage due to the speed with which such trades are placed in the market. (*The Telegraph*, 12 September 2011)

2. To provide a mechanism for the pooling of resources and for the subdividing of shares in various enterprises.

Problem: through our pensions and savings, individuals own shares in a wide range of different enterprises and yet feel no ownership of, personal connection with, or responsibility for, any of them. This means that they are less likely to engage with the wider social and environmental impacts, and fund managers tend to assume that asset owners are only concerned with financial return.

In addition, this pooling of resources and sharing of risk through the capital markets happens within limited groups, so that many people (in poorer communities or countries) do not have the advantage of access to the large pools of capital that exist.

3. To provide price information to help coordinate decentralised decision making in various sectors of the economy.

Problem: price information is incomplete, as it does not include the impact on natural, social and human capital.

The use of information technology has become so sophisticated that tiny fluctuations in price trigger massive responses by shareholders who can make a small profit on these minor price movements. Hence the information is not used to relay meaningful messages about the quality of certain companies.

As the Turner Review (2009) found, 'Market discipline, expressed through market prices, is ineffective. For example, bank credit default swap spreads and share prices in the run-up to the crisis gave strong positive signals about the health of the sector.'

4. To provide ways to transfer economic resources through time, across borders, and among industries.

Problem: emphasis has been put on credit rather than on saving and the transfer of economic resources has been from the future to the present.

Economic resources are transferred across borders and among industries but the allocation of capital requires price signals from the market and the market often fails. So, for example, economic resources are not allocated to the transition to a low-carbon economy because the costs of the high-carbon economy are not factored into pricing. An over-emphasis on financial resources and an under-emphasis on social and environmental resources have led to a depletion of the latter.

5. To provide ways of managing and sharing risk.

Problem: risk is generally viewed in prescribed ways and in the short term, so that systemic risks (eg, arising from climate change, from reduced liquidity affecting the functioning of the financial system as a whole, or from destruction of biodiversity) are not properly addressed.

The financial system as currently configured also increases other types of risk. For example, it encourages 'herd risk' where individuals in financial institutions continue to act irrationally because others are behaving in the same way.

Inequities in the global economy are such that rich countries or individuals can benefit from allocating capital to carbon-intensive or resource-rich lifestyles while the financial costs will fall most heavily and disproportionately on poorer people and countries.

Products such as forward contracts, insurance contracts and other hedging mechanisms were originally designed to reduce risk. Secondary trading of these contracts helped to make these risk-hedging activities possible, through increasing liquidity. But trade in these financial products has become an end in itself, with no obvious value arising for the real economy from the massive markets in these derivatives.

6. To provide a solution to the problems of asymmetric information and contradictory incentives.

Even when all parties to a financial transaction have access to the same information, power is skewed in favour of the financial expert. This problem has increased as financial instruments and processes have become more and more complex.

In fact a report issued by the FSA (June 2011) suggests that the financial service industry may be deliberately seeking to make money out of providing their customers with inappropriate products. The sector has had to make compensation payments of approximately £15bn so far, with significant payment protection insurance claims still to come.

The report said:

> 'Confidence in the financial services sector as a whole is at a low level. Conduct issues since 1990 have been a major factor, particularly the significant instances of widespread mis-selling of financial products to retail consumers. These include personal pensions, mortgage endowment policies, split capital investment trusts and payment protection insurance (PPI). Millions of consumers have suffered detriment on a large scale and, together, the industry has had to make compensation payments of approximately £15bn, with most PPI redress still to come. Such outcomes would be regarded as unacceptable in other sectors of the economy. They demonstrate that a new approach to conduct regulation is essential.'

‘We need banking reform.’

Vicky Chick, Emeritus Professor of Economics, University College London explores some of the failings of our banking system.

It is clear that we have just witnessed a period of very bad banking. Bad decisions, concerning loans and their funding, indeed the whole originate-and-distribute business model, have led to the collapse of banks throughout the advanced economies; they are only kept afloat by bail outs. The fact that important banks drove themselves into insolvency is bad enough, but the repercussions on the real economies of which they are a part will be felt for some time to come.

After the crash, discussions of how to re-regulate the banks to prevent another such debacle went to the top of the agenda, but rarely did those discussions begin by asking what kind of banks we wanted and what we wanted them to do. The Independent Commission on Banking (ICB), which was charged with advising the British Government on the matter of re-regulation, came close to shying away from this question altogether (ICB 2011a,b).

The purpose of banking regulation should be to promote at least two things: the stability of banks and their contribution, through their lending, to the economy as a whole. You could add – and it is my contention that this is vital – that regulation should enable the State, as represented by the Treasury and the Bank of England (‘the authorities’), to resume their ancient responsibility for the quality and quantity of our money. The bulk of our money is created by the banks.

For the nearly 100 years between Walter Bagehot’s Lombard Street (1873) to Competition and Credit Control (CCC) (1971), these aims of regulation were well understood. CCC marked the break between the joint evolution of banking and mechanisms of regulation and support by the authorities to a gradual but systematic withdrawal of the authorities from oversight and control. This withdrawal allowed banks to develop from institutions which remained quite safe for a century to the casinos of today.

The post-CCC model has been one of treating financial institutions like other businesses and relying on market competition for regulation. The ICB has retreated slightly from this position; though at least they acknowledge the need for a regulatory framework:

> ‘It should not be the role of the State to run banks. In a market economy that is for the private sector disciplined by market forces within a robust regulatory framework.’ (Final Report, 2001b, p7)

Finance is different from other businesses in many ways. Here I want to concentrate on the fact that banks create the bulk of our money when they lend – a fact that the ICB does not understand. (Interim Report, 2011a, p16)

It is odd that in this country the question of who is responsible for the money supply has never been debated, not even by the banking and currency schools. (They debated whether deposits should be acknowledged to be money, rather than who should be responsible for the supply of money.) At one time money was unquestionably the responsibility of the State, a badge of sovereignty, but very gradually the success of many banks in maintaining their promise to convert deposits into cash on demand at par value, not discounted, led to cash and deposits being seen as interchangeable.

But there were liquidity crises, and the Bank of England, urged by Henry Thornton (1802) and Bagehot (ibid), undertook, in the nineteenth century, a protective role as lender of last resort, when insufficient liquidity threatened a bank run – in other words when the promise to convert at par was in jeopardy.

With that step, banking no longer became a private matter but a shared responsibility between the banks and the State. All monetary policy – regulation, supervision, liquid asset ratios, interest rate policy, repo operations, deposit insurance, lender of last resort operations – all have the purpose of maintaining the banks' ability to meet their promise to convert from deposits to cash on demand and at par. What this means is that the state's responsibility to provide the country's money has been franchised out to private sector institutions.

The ICB recognises the importance of par value in framing regulation. One of their three aims of regulation is to 'preserve the functioning of the payments system and guaranteed capital certainty and liquidity for small savers including small and medium-sized businesses.' (Final Report, p20, emphases suppressed)

But they also want us, the depositors, to share that responsibility. They speak of 'improving incentives for creditors to discipline banks' (p25). Creditors include depositors, for whom the only mechanism of 'discipline' is to switch banks, and for whom monitoring the balance sheets of banks is a task beyond the competence of most of us.

Let us be clear: as long as everything is done by the authorities to help banks maintain par value between cash and deposits, bank-created money is a franchised product. It is this that gives the State not only the right, but the obligation, to regulate banks – an obligation they have set aside in stages since 1971 – and to oversee the development of their balance sheets, a function taken away from the Bank of England by Gordon Brown in 1997 but soon to be restored.

In the era of well-regulated banks, their performing loans were the foundation of the bulk of our money. Those loans performed because they supported productive activity and investment and could be paid back out of profits. After CCC the banks moved into mortgage lending, so our money was then based on assets which were not directly productive, and house price inflation was the result.

With the advent of derivatives and 'structured products', the foundation of our money became purely financial speculation, and 'when the [money] of a country becomes a by-product of the activities of a casino, the job is likely to be ill-done.' (Paraphrased from Keynes, 1936, p159)

If this present government really believes its free-market rhetoric, it should make it plain that bank deposits are a risky investment like any other and dismantle all monetary policy. Bank deposits should carry a warning that their value in terms of cash may go down as well as up. (In the so-called wildcat banking period in the USA, bank notes, at the time banks' main instrument of lending, circulated at varying discounts against Treasury-supplied notes, depending on the perceived creditworthiness of individual banks.) As long as the authorities act to protect par value, bank money is a franchise. The responsibilities for maintaining the quality of the product, which properly rest with the franchisor, must once again be accepted.

The ICB is not nearly clear enough about this. It proposes relying on competition and potential failure as market disciplines, with capital adequacy controls being the only non-market regulation taken seriously. The implications of the banking system's role as creators of our money for both the banks and the authorities are never addressed, because the role is not understood. The originate-and-distribute bank business model is tacitly accepted. The direction of bank lending is not questioned, yet a sound banking system is the foundation of our money. Credit needs to be reallocated from deals in the financial sector to re-creating an economy that, in the words of this publication, sustains people and the planet.

By asking what kind of banks we want and what we want them to do, we should seek to ensure that the distinctive part played by the financial sector in the economy is re-configured. The neglect of the question of the money supply and dismantling of regulation of banking amounted to an abrogation of responsibility by the State and society as a whole.

Although my remarks have been addressed to insisting that the State should play this role, its failure to do so is a serious possibility for which we need to be prepared.

THE FINANCE INNOVATION LAB

PICTURE THIS

Creating the financial system we'd like to see

3

What kind of system do we want?

The Finance Innovation Lab was launched in 2007, a year before the largest financial crisis we have faced since the Great Depression of the 1930s. It is a crisis that continues to evolve. The repercussions are still being felt in business, government and civil society.

Over the last three years when we've asked our diverse community to share the features of a financial system they'd like to see, the following characteristics have emerged:

- **Resilient:** a financial system which accepts that the unexpected will happen and is able to adapt to a changing environment.
- **Transparent:** a financial system which is accessible to the general public, with increased societal financial literacy.
- **Sustainable:** a financial system that aligns social and environmental values with profit motives; one where the negative impacts of consumption are reduced through behaviour change; one that invests in a sustainable world.
- **Trustworthy:** a financial system where social contracts are as important as financial and legal ones.
- **Inclusive:** an inclusive financial system where everyone has a stake, a share and a say.
- **Integrated:** less self-serving and with closer relationships between ownership and the control of enterprises; a system which manages its risks rather than trading for its own sake.
- **Principled:** a financial system which delivers well-being and runs with ethics and integrity.

A way forward

Changing the financial system is a daunting task. We believe we need to take a step back to see the interconnections and impact of the existing system and, crucially, to explore the culture that currently drives it.

To do this requires creating a space to think, an opportunity to see different perspectives, for new voices to be heard, and a place to take action, to test solutions in an environment that accepts that some ideas will fail, but which encourages and supports the process of trying things out.

To respond to this, The Institute of Chartered Accountants in England and Wales (ICAEW) and the World Wildlife Fund (WWF-UK) convened The Finance Innovation Lab.

Features of our way of working

The work of The Finance Innovation Lab is an incubator for systems change in finance. It is a bottom-up rather than a top-down process.

Given the nature of the financial system and its challenges, we take a systems approach which includes working with complexity, emergence, leverage points, positive disruption, relationships and culture change.

We have created a space where people who don't normally talk to each other can come together. Lab participants come from different perspectives and sectors. They include academics, mainstream financiers, civil society groups and the business community, from all over the world. Ideas emerge from the community and are taken forward by those with the drive to bring them to life. Key to their work is inviting each person to show up with their whole selves and to take responsibility for what they care about.

Over a 12-month period we worked with a range of people in the financial system to try to understand what type of innovation might be useful in stimulating real improvement in the financial system.

Research included 50 dialogue interviews with people who have a stake in the finance system, from bankers to Quakers. We hosted a synthesis workshop, to explore themes in more depth, a design workshop over three days for five organisations to talk about innovations for the future and to undertake desktop research. Finally we held a further three workshops in July 2009 with over 200 participants. We worked with two scenarios for the future of the financial system developed by Oxford University Said Business School Institute for Science, Innovation and Society.

From this research we identified areas within the financial system where our Lab community believed innovation will lead to significant change. These were:

- values and leadership;
- education;
- governance;
- risk to resilience;
- money and value;
- new business models and new forms of banking;
- internalising externalities; and
- locally-directed investment.

These areas for innovation have been found by others. ICAEW's Financial Services Faculty article on how to face the future, 'Restoring Confidence 4 Conversations', *FS Focus*, November 2008, and Forum for the Future's publication, *Rethinking Capital*.

These still form the basis of the work of the Finance Innovation Lab and are outlined in more detail below.

Values and leadership

As Stephen Green, the former CEO of HSBC said:

> 'We live our lives through compartmentalization, dividing life up into different realms, with different ends and subject to different rules'. James Featherby (2009), former partner at Slaughter and May, said, 'It is my belief that it will only be through rediscovering our time-honoured values that we will rebuild our confidence in doing business with each other.'

The Lab community explores questions like:

- What are the values and leadership strengths we need to address complex contemporary trends both within finance and without?
- What new forms of education and institution can support development of these capacities?

Education

Commissioner Dalli, The European Commissioner for Health and Consumer Policy, delivered a speech at the Dolceta Conference on Financial Literacy in 2010. He said: '77% of young people in five countries in the EU do not know that the annual percentage rate of charge is the one single figure which allows you to find the cheapest consumer credit'. This, we believe, needs to change.

The Lab community explores questions like:

- How can we improve financial literacy levels?
- How can sustainability be embedded in business school education?
- How can mainstream financiers learn about sustainability after they have left formal education?
- How can we help to educate people on the impact of their money?

Governance

An OECD Report in 2009 concluded 'the financial crisis can be to an important extent attributed to failures and weaknesses in corporate governance arrangements.'

Mervyn E. King, Chairman of the Global Reporting Initiative said 'the positive outcome from the financial crisis is an appreciation that governance, strategy and sustainability have become inseparable.' (*Corporate Governance in the Wake of the Financial Crisis*, 2011)

The Lab community explores questions like:

- What governance structures within the financial system best serve society and the environment?
- What are the costs and benefits of government intervention?
- How can government policy, regulations, developing industry standards increase transparency and accountability of financial system products, services and activities?
- To what extent should governance be used to incentivise long-term business practices, including reorienting performance benchmarks, remuneration, and embedding sustainability into capital markets?

Money and value

As Belgian economist Bernard Lietaer, said, 'it would be crazy to believe that we're going into the information age, and the most important information system – our money – will not change.' (TEDX Berlin 2010)

The Lab community explores questions like:

- What are the alternative mechanisms for creating money?

- In retail banking for example, what would a truly community-owned bank look like?
- What would a bank established with the primary objective of serving its customers' needs look like?
- How is money created?
- Are there alternative mechanisms for creating money?
- Are there alternatives to using money?
- How is value best represented in our day-to-day transactions?

Locally-directed investment

'A growing body of evidence suggests that every dollar spent at a locally owned business generates two to four times more economic benefit – measured in income, wealth, jobs, and tax revenue – than a dollar spent at a globally owned business' said Michael Shuman of the Post Carbon Institute.

The Finance Innovation Lab community explores questions like:

- How could the locality of investors – for example pension fund contributors – be considered in investment decisions?
- What are the barriers to communities investing in local business?
- What would local banking look like?

From risk to resilience

> 'Risk control frameworks in many institutions were not robust enough, due primarily to weak governance and lack of understanding of the risks inherent in the business strategies adopted…Risk management reforms are necessary to create stronger institutions and a resilient financial system.' (José Manuel González-Páramo, Member of the Executive Board of the European Central Bank, April 2011)

Finance is at its core about the management and mitigation of risk, through arrangements that blunt the impact of crisis events on individuals. Whether through insurance or venture capital investment, risk sharing currently has a specific and limited focus.

The Finance Innovation Lab community explores questions like:

- What would a risk industry that mitigates risks to our careers, our homes and our abilities look like?
- How could a new risk industry democratise finance?

Internalising externalities

> 'There is also growing pressure for companies to begin incorporating the costs of the damage that they do to the Earth's natural resources into their profit and loss accounts.' (BBC, 24 October 2010)

Businesses can create a negative impact on society and the environment which they do not have to pay for. These are known as 'negative externalities'. Only by incorporating these costs into their accounts, many argue, will companies be forced to reduce their impact on the natural world.

The Finance Innovation Lab community explores questions like:

- How should businesses and the financial system account for these externalities?
- To what extent are regulatory interventions required for change to occur?
- How can customers and investors shape corporate behaviour?
- How can quantifying and measuring externalities improve methods or risk assessment and valuation techniques?
- Beyond 'cap and trade', what options are there for an innovative mechanisms for managing our use of energy, our emissions, including carbon, and the ultimate impact on the environment?
- What are the new forms of accounting or other approaches that 'internalise the externalities'?

New business models

> 'With the Googleisation of the world's information, the creation of on-line social networks bigger than whole populations, the ability of new technology to harness the wisdom of crowds and the rise of user-generated content – we are seeing the democratisation of the means of production, distribution and exchange. This new democracy is a good thing. It is challenging our existing sources of authority… And now new businesses are opening… Imagine if a Moneysupermarket did this for all business? Imagine if Google did this? Banks would quickly be relegated to simply being the factories for money transactions. Their large profits and sector dominance would disappear as quickly as the major record labels.' (George Osbourne, the Olsen Lecture, 2006)

The financial crisis has created a curiosity to explore new models for banking. The Finance Innovation Lab community explores questions like:

- In retail banking, what would a community-owned bank look like?
- What would it take to start and scale up such a bank?

We invite you to be part of shaping our collective future and to create a financial system that sustains people and planet.

The purpose of The Finance Innovation Lab is to empower positive disruptors in the financial system. Our vision is for a financial system that works for people and planet: one that is democratic, responsible and fair.

The Lab connects people who are changing the financial system, develops them as leaders and helps them scale their work.

The Lab works with:

- Entrepreneurs creating alternative business models in finance
- Civil society leaders advocating for financial reform
- 'Intrapreneurs' in mainstream finance re-purposing their professions

WANT TO HELP BUILD A FINANCIAL SYSTEM THAT SUSTAINS PEOPLE AND PLANET?

We're in the process of building a thriving community of systems changers. If you share our vision for a financial system that serves people and planet, we want you to join us – whether you're a customer, employee, entrepreneur, campaigner, funder or just curious! Sign up here for updates, event invites and opportunities to get more involved in our work.

Connect with us, follow The Lab

@TheFinanceLab   Finance Innovation Lab

To learn more about The Lab visit www.financeinnovationlab.org

Founding Partners

The Finance Innovation Lab was founded by WWF-UK and ICAEW in 2009 in order to change the financial system so it serves people and planet. In 2015, the Lab became independent from WWF-UK and ICAEW, so it could scale its impact. Both organisations continue to support The Lab through significant funding, strategic oversight as Trustees and through ongoing collaboration with The Lab on projects of mutual strategic interest.