BANK OF ENGLAND

Speech

Everyday Economics

Speech given by

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Terrible title, right? Not the "everyday" bit – that's fine. It is the word "economics". For most people, this is an instant turn-off. "Economics" just sounds too conceptual, too academic, too impersonal, too dismal. Stephen Hawking was once told that every equation he included in a book would halve its readership.[1] The word "economics" probably has a similar effect.

If I'd taken media studies rather than economics, I'd have gone about things differently. I'd have drawn you in with a "hook", such as people or children or dogs. Had my title been "Economics for the People", I'd have doubled my readership. Had it been "Economics for the Kids", I'd have quadrupled it. And if I'd opted for "A Fluffy Labrador Puppy Explains the Economy", the Bank's website would have crashed.[2]

It is too late now. And having decimated my readership in the first line I am now going to argue that having done so was a terrible mistake. If economics or economic policy is elitist and inaccessible to most people, it is not doing its job. That is because the economy and economic policy affects most people's lives, every day of their lives. More than that, an improved understanding of the economy and economic policy would probably help many people when making everyday decisions, big and small.

You do not have to take my word for it. As it turns out, most people agree. Although many find economics difficult to fathom, they fully accept its importance to them personally and societally. Indeed, most people say they would like to know more about the economy to help them when making everyday decisions about jobs and money and voting. There is a demand for better public understanding of the economy from the public themselves.

What about the supply of this public understanding? The Bank of England is owned by, and run for the benefit of, the public. It is a public institution supplying public goods – goods such as stable money and safe banks. Indeed, this has been the Bank's role for the whole of its almost 325-year life. Another of those public goods is public understanding of the economy, the financial system and economic and financial policy.

In what follows, I wish to say a little about why an improved understanding of the economy and economic policy matters, for the general public when making everyday decisions and for the Bank of England when making policy decisions. I want to say a word, too, about what the Bank is doing to support public engagement, public understanding and thus public policy, with a focus on engaging children in schools.

The Twin Deficits

Economists often talk, with some trepidation, about economies which face a "Twin Deficit" problem. For example, the UK currently faces both fiscal and current account deficits running to several percentage points

[1] Hawking (1988).
[2] Kumar *et al* (2015) show that Google searches in the US for the word 'puppies' far exceed searches for macroeconomic variables, such as GDP, inflation and unemployment.

of GDP. In economist circles, such Twin Deficits are usually the prompt for a pursing of lips, a sucking of teeth and a sharp intake of breathe.

Yet economics may be facing its own "Twin Deficit" problem. These twin deficits are not unique to, but are probably more acute in, economics. With the public at large, there is an *understanding* deficit and a *trust* deficit in economics. Because a lack of trust inhibits understanding, and because a lack of understanding contaminates trust, these Twin Deficits are inextricably entwined.

Starting with the understanding deficit, the most compelling evidence comes from the public themselves. A survey in 2011 asked about the meaning of the words "inflation" and "GDP", the two central concepts in macroeconomics. Only 16% of the public could clearly define inflation, while only 10% could define GDP. [3] Other surveys have reached similar conclusions, sometimes with slightly higher fractions.[4]

This unfamiliarity with economic concepts extends to a lack of understanding of these concepts in practice. For example, the Bank of England regularly surveys the general public to gauge their views on inflation. When given a small number of options, less than a quarter of the public typically identify the correct range within which the current inflation rate lies. More than 40% simply say that they do not know.[5]

If we turn from economics to finance, the picture is no better. In a recent survey, the UK's Financial Conduct Authority (FCA) found that almost half the public believed they had "low knowledge" of financial matters.[6] Some surveys put the fraction of the public who are financially capable at only around 60%.[7] Fully two-thirds of the public say they are confused when making decisions about money.[8] And the UK consistently performs poorly in international league tables of financial literacy.[9]

This understanding deficit appears to extend to economic and financial policy. For example, fewer than one in ten people know that the interest rate in the UK is set by the Bank's Monetary Policy Committee (MPC).[10] Only around a quarter understand "quantitative easing" and fewer still "forward guidance".[11,12] My own experience is that the Bank is believed by many to be either an arm of government or a high-street bank.

If we turn from understanding to trust, much the same picture emerges. A survey of trust in the professions earlier this year ranked economists second bottom, with only politicians lower.[13] Doctors and nurses ranked

[3] Quoted in Thompson (2016).
[4] YouGov / Post Crash Economics Society Survey (2015).
[5] Bank of England / TNS Inflation Attitudes Survey (2017).
[6] Financial Conduct Authority (2017).
[7] Money Advice Service (2015).
[8] FLY Project (2015).
[9] For example, see OECD/INFE International Survey of Adult Financial Literacy Competencies.
[10] Bank of England / TNS Inflation Attitudes Survey (2017). It is worth noting that 29% cite the Bank of England in their response to this question, so appear aware of the institution responsible for setting monetary policy.
[11] YouGov / Post Crash Economics Society Survey (2015).
[12] Bank of England (2014).
[13] YouGov (2017).

top. In surveys of the public, slightly more people tend to mistrust than trust the opinions of economists, even on economic matters.[14] In other words, there is a trust deficit to match the understanding deficit.

That trust deficit also affects those setting economic policy, including central banks. Measured trust or satisfaction in the European Central Bank, the Federal Reserve and the Bank of England fell after the global financial crisis. It has yet to recover. This mirrors the fall in trust in institutions and experts generally. Tellingly, the UK and US have suffered a greater erosion of institutional trust than most other countries.[15]

If the Twin Deficits in economics are wide, and possibly widening, what have been the root causes? They seem to be two-sided. In part, the deficits reflect the how well (or, rather, badly) economic material is conveyed to the general public. And in part they reflect how well (badly) the public are able to digest this material. The public's own views make clear the two-sided nature of the Twin Deficits problem.

A survey last year found that a significant majority of the public think that economics is inaccessible to them, even when it is intermediated by the media or politicians.[16] Only 12% believed the opposite. Inaccessibility problems are particularly acute when it comes to financial products. There are over 12 million people in the UK who feel they do not have the information they need to choose wisely between insurance products.[17]

This inaccessibility problem extends to public bodies charged with safeguarding the economy and financial system, like central banks. One way to gauge this is by studying the way these public bodies communicate in public. By measuring the complexity of their public communications, we can infer how easy it is for the public to make sense of what these public bodies are saying to them.

Central banks are one such body. The minutes and *Inflation Report* published regularly by the Bank's Monetary Policy Committee (MPC) are pitched at a linguistic level which means they are readily accessible to only around 5% and 12%, respectively, of the UK population.[18] Minutes of the meetings of the United States FOMC are pitched at a level which makes them accessible to only around 2-3% of the US population.

To some extent, this inaccessibility problem applies to all technical disciplines. Economics appears, however, to have a particularly acute case. On many measures, economics is the most tribal of the social sciences, judged by cross-disciplinary collaboration and citation. There are signs recently of improvement, but from a low base.[19] Economics ranks high on the tribalism scale even by comparison with most natural sciences.[20] Only theoretical physicists (with the probable exception of Stephen Hawking) come close.

[14] ING-Economics Network Survey of the Public's Understanding of Economics (2017).
[15] Edelman (2017).
[16] YouGov / Rethinking Economics Survey (2016).
[17] Financial Conduct Authority (2017).
[18] Haldane (2017). See also Jost (2017) for an analysis of the Bank of England's Inflation Attitudes Survey.
[19] Angrist, Azoulay, Ellison, Hill and Lu (2017).
[20] As measured, for example, by the degree of cross-citations (Haldane and Turrell (2017)).

The other side of this coin is the public's level of understanding of economic and financial issues. This, by the public's own admission, is not as they would wish. Around two-thirds of the public say they have never had any formal education and training in economics.[21] In practice, that fraction may be higher still. And almost half of all people never discuss economic and financial matters, or do so no more than once a month.[22]

Why This Matters

If economists are a remote and mistrusted tribe, and if the public feel their understanding of this tribe is inadequate, does this matter? Yes. The reason we know this is because the general public say so.

In a recent UK survey, over 80% of people said that economics was relevant, or very relevant, to their everyday lives.[23] Respondents expressed a clear desire to improve their understanding of economics, to help them when managing money, voting or understanding the economy. Like economists, the general public also think that the Twin Deficits are reason to purse lips, suck teeth and take sharp intakes of breath.

It is not difficult to see why. Imagine that, instead of economists plumbing the depths of the trust league table, it was high-flying doctors. A loss of public trust and understanding in our health services would impose significant costs on society. Fewer sick people would seek expert medical advice. Non-expert, alternative medicine would rise in popularity. And there would be an increased risk of medical scare stories taking root.

There is plenty of evidence to suggest these costs can be considerable. Fifty years ago, there were almost half a million suspected cases annually of measles in England and Wales. In the following year, a vaccination for Measles, Mumps and Rubella (MMR) was introduced in the UK. Cases of measles fell dramatically, by the mid-1990s reaching fewer than 10,000 per year.

In 1998, a widely-publicised article appeared in *The Lancet* linking the MMR vaccine to autism and bowel disease.[24] News of these findings spread as contagiously as measles itself. In response, rates of MMR vaccination, which had peaked at over 90%, fell to 80% by 2004.[25] The scare had socially, as well as clinically, contagious consequences for public health, causing lower rates of vaccination against un-related diseases. Only recently have rates of MMR vaccination returned to their late-1990s highs.

The 1998 MMR study has since been comprehensively discredited and the lead author struck off as a doctor. Yet the costs of this episode are still being felt. Rates of measles infection began rising in the UK from the

[21] ING-Economics Network Survey of the Public's Understanding of Economics (2017).
[22] YouGov / Post Crash Economics Society Survey (2015).
[23] ING-Economics Network Survey of the Public's Understanding of Economics (2017).
[24] Wakefield *et al* (1998). The article has since been retracted.
[25] Public Health England, The National Archives.

early 2000s and only recently have cases peaked. In 2016, there were over 500 confirmed cases of measles, five times higher than at the turn of the century.

If we turn from public health to economic and financial health, the costs of a lack of public trust and understanding are in many respects quite similar: expert advice and services may not be taken-up, worse alternatives may be sought out and contagious scare stories may be allowed to proliferate. Each of these has societal costs which may be significant.

Financial exclusion (people excluded from access to core financial services and advice) remains pervasive in the UK. There are almost 2 million people in the UK without a bank account.[26] In the most deprived parts (including parts of London, Manchester, Middlesbrough, Liverpool, Bradford, Birmingham and Glasgow), over a third of people do not have access to a bank account.[27] While not all of these problems can be blamed on a misunderstanding and mistrust of finance, these are still depressing statistics.

Many more people suffer the consequences, not of financial exclusion, but financial illiteracy. Studies have identified a range of ways in which this can adversely affect people's financial health. Financial illiteracy is a key contributor to excessive indebtedness.[28] It is associated with an increased incidence of default, including in the run-up to the sub-prime crisis.[29] And illiteracy causes people to seek out high-cost, non-standard sources of credit, the financial equivalent of alternative medicine.[30]

Debt, default and dependency on high-cost credit are also a recipe for another d – depression. Debt and financial illiteracy affect physical and mental health.[31] Adults in debt are three times more likely than those without to have a common mental health disorder.[32] Financial stress is associated with high levels of personal anxiety, depression and alcohol-dependency - problems that tend to felt more acutely by people with low levels of financial literacy.[33]

The link between debt, financial illiteracy and mental health is clearly two-way. In a survey by mental health charity MIND, over 90% said that financial problems had worsened existing mental health problems, while around two-thirds said mental health problems had contributed to their financial difficulties.[34] There is a debt-cum-depression spiral. These statistics are, in every sense of the word, depressing.

A lack of trust or understanding of finance and the economy can have wider societal costs. Economic mistrust and misunderstanding can spread contagiously across societies, much as happened after the MMR

[26] House of Lords Select Committee on Financial Exclusion (2017).
[27] Resolution Foundation (2014).
[28] Lusardi and Tufano (2009).
[29] Gerardi, Goette and Meier (2010).
[30] Disney and Gathergood (2013), for example, find that borrowers with poor financial literacy hold higher shares of high cost credit.
[31] Richardson *et al* (2017).
[32] Earwicker (2016).
[33] Earwicker (2016).
[34] As quoted in Earwicker (2016).

vaccine scare. As then, this causes people to seek safety in ways which in fact increase risk, for them individually and for societies collectively. The flames of this epidemiological fire are increasingly being fanned by social media.

The most visible manifestation of these failures occurs at times of financial crisis, such as during a bank run. These are contagious losses of trust. While it may seem individually rational to run, bank runs can be collectively calamitous for societies as a whole, as during the global financial crisis and MMR episodes. As in those episodes, contagion is often spread by social as well as financial channels. “Popular narratives” emerge in crisis that propagate panic, tipping economies into recession.[35]

Robert Shiller has recently shown how past recessions and depressions have often generated pessimistic popular narratives about the economy or financial system.[36] Economic expectations, like measles, can follow epidemiological dynamics as pessimism spreads contagiously. This tipping point in expectations provides a plausible account of the cliff-edge fall in GDP at the time of the Great Recession, the Great Depression and several episodes in between.

These epidemics in expectations can be potent even during tranquil times. Sociologists have shown that individuals’ everyday decisions are often shaped by friends’ and associates’ views and behaviours, irrespective of fundamental factors. It is not just extreme optimism and pessimism, exuberance and depression, fear and hubris that are contagious. So too are dieting, exercise and gym membership.[37]

That appears to be true of financial market dynamics too. Recent research using Facebook data has shown that the views of (economically and geographically-distant) friends can materially change peoples’ views of the housing market, independently of local factors and conditions.[38] This is a concrete example of social media fanning economic and financial flames, even when the fire itself is small.

There are other, distinct, costs that arise from a loss of trust in the economy, financial system and the institutions charged with safeguarding them. All businesses and policy institutions exist courtesy of a social contract with society. That contract is maintained not by law but by trust. A loss of trust in institutions is important because it is a breach of that social contract and signals an erosion of social capital.

That puts the loss of trust in institutions over recent years into sobering context. The associated breach of social contract explains why the legitimacy of businesses and public institutions has been called into

[35] Akerlof and Shiller (2009).
[36] Shiller (2017).
[37] For example, Aral and Nicolaides (2017) find evidence that exercise is socially contagious. Christakis and Fowler (2007) find that social networks can allow obesity to spread.
[38] Bailey *et al* (forthcoming).

question.[39] The accompanying loss of social capital could carry significant societal costs. The absence of institutions endowed with such social capital has, historically at least, been the reason *Why Nations Fail*.[40]

Recently, the Bank hosted a conference to mark 20 years of operational independence in monetary policy.[41] Central bank independence is also part of a social contract with the public. The conference made clear that there is nothing inviolable about that contract. Like any social contract, central bank independence needs to be adapted and improved in response to shifting social norms and economic circumstance.

Correcting the Deficits

Engaging wider society is part of the process through which central banks can renew and strengthen that social contract, in the face of new social norms and changed economic circumstance. How might that best be achieved? Let me discuss three areas where the Bank of England has made progress recently and is seeking to make further progress in the period ahead: *communication*; *conversation*; and *education*.

(a) Communication

When I first arrived at the Bank of England, I was told I would need to learn a new language. It was not one I had come across previously. There was no book from which to learn, nor any recorded tapes. It seemed to involve quite a bit of Latin, which put those of us from a state school at an instant disadvantage. You didn't have to wear a top hat and a tailcoat when writing it, but it helped. The language was called "Bankese".

Despite its obscurity, the semantic principles of Bankese were easy to detect. The language was ruthlessly consistent in tone and content, for fear of giving mixed messages. It was free from personal judgement, for fear of calling into question the Bank's judgement. It was free from emotion, for fear of questioning the Bank's objectivity. And it was free from split infinitives, for fear of the wrath of the Bank's wordsworths.

This reign of semantic terror is, fortunately, now long gone. In its communications, the Bank no longer backs a single horse, notable for its consistency, lack of emotion and technical prowess. Instead it has invested in a diverse stable of styles and publications. The messages they deliver are now deliberately mixed, in tone and content, to meet the mixed needs of a mixed audience. Let me give three recent examples.

The first is *Bank Underground*, the Bank's staff blog. Bank Underground has levels of linguistic complexity up to 4 years lower than the *Inflation Report*, making it accessible to up to 11 million more people, or around a fifth of the adult population. Perhaps reflecting that, it recently exceeded 1 million hits. That is around 6 or 7 times the number of readers of the *Inflation Report* over the same period.

[39] Haldane (2015).
[40] Acemoglu and Robinson (2012).
[41] See http://www.bankofengland.co.uk/research/Pages/conferences/2017/28290917.aspx

A second is KnowledgeBank. This is an attempt to explain the economy and central bank policies using a combination of simple prose, cartoons, videos, games and competitions. It draws on different messaging conveyed through different media. Its level of linguistic complexity is 5 years lower than the *Inflation Report*, making it accessible to around 14 million more people, or around a quarter of the adult population.

A third example is the Bank's flagship publication, the *Inflation Report*. In November, the Bank for the first time published the *Report* in three layers: Layer 3 was the usual "50 page, 50 chart" version; Layer 2 was the "1-2 page, 1-2 chart" version; and Layer 1 was the "1 line, 1 chart" version. With a level of complexity more than 6 years below Layer 3, Layers 1 and 2 in principle could reach an extra 21 million people.

Early evidence suggests this layering has helped in reaching a broader audience. Website hits on the November *Inflation Report* were double the average from earlier quarters. These extra hits were entirely accounted for by Layers 1 and 2, while Layer 3 hits were essentially unchanged. This suggests that layering has enabled the MPC to reach a new, wider audience without cannibalising its existing audience.[42]

Producing simplified material, like layering, is neither a short cut nor an easy option. Nor is it simply an act of communication. Message simplification is an act of *policy*. As such, simplified messages need to be agreed and signed-off by policy committees – as were the Layer 1 and 2 messages in the Bank's November *Inflation Report*. They are another example of the Marshall McLuhan maxim of the medium becoming the message.[43]

If one feature of more effective communication with the general public is *simplification*, a second is *story-telling*. For most people, stories stick in a way facts and figures simply cannot. Recent experimental evidence has explored whether media narratives are able to stick in a way that can reshape public discourse, public opinion and public behaviour.[44] It finds compelling evidence that stories do just that.

Some stories are, of course, more adhesive than others. I recently attended a conference on the merits of "Odyssean" and "Delphic" forward guidance. The use of Greek mythology is an example of story-telling. But are these stories sticky with the public? For most people, fictional goings-on in Ancient Greece several millennia ago are not especially sticky. Even modern-day citizens of Delphi might find them a stretch.

The trick is in creating not just narratives but "popular narratives", to use the language of George Akerlof and Robert Shiller.[45] One effective way of doing so is draw on stories that link to people's personal, local or recent experience. This helps people to visualise the story which, in turn, helps make it stick, in much the same way visualising a list of random items helps them stick in your memory.

[42] The MPC's decision to raise Bank Rate in November may also of course have had a role to play in generating extra hits.
[43] MuLuhan (1964).
[44] King, Schneer and White (2017).
[45] See Shiller (2017).

The MPC's policy actions in November were described as "taking its foot off the accelerator" to hold the car within its "speed limit". This was intended to convey the sense of monetary policy slowing the economy slightly, towards its lower potential growth rate, while still propelling it forward overall. It was a visual narrative. Because most people (from Derry to Doncaster, Dunfermline to Dunvant, Delphi to Delhi) drive cars, it was a local and personal narrative too. The car metaphor was used extensively by UK media.

There is a balance to be struck here, of course, a point beyond which simplification and story-telling morphs into dumbing-down and trivialisation. We need to recognise those limits. Equally, most of the policymaking world is at present some distance from these limits. In the transition, I'd be comfortable erring on the side of over-simplifying, rather than over-complicating, if policymakers and the public are to begin to forge a link.

Let me give a concrete example: Quantitative Easing or QE. When QE was first introduced in 2009, the Bank made strenuous efforts to explain this new policy to the wider world. It published speeches and articles. It even did a Townhall tour of the UK to explain its actions. The conversations with the public about QE typically took the following form:

Q: "Is QE money-printing? And, if so, can I have some please?"

Bank: "No. And no."

Q: "Why not?"

Bank: "QE is not printing money. It is the Bank of England, through its operations in financial markets, purchasing government securities of a given duration, typically from non-bank financial institutions such as life insurance and pension funds, whose accounts are credited with the proceeds such that the asset purchases are financed through the creation of central bank reserves held on the accounts of commercial banks at the Bank of England".

And that explanation, it was hoped, would provide the general public with the confidence needed to encourage them to spend. You can be the jury in deciding how well this might have been achieved.

There was a different explanation, and conversation, with the public that could have been had. It might have gone something like this:

Q: "Andy, is QE money-printing?"

Andy: "Yes. And when you get some, make sure you spend it."

I fully accept that this would be the wrong side of the over-simplifying line for some people. But if doing so delivers the desired policy outcome – building public confidence to support spending – that may be the better side of the line on which to err. Just saying.

(b) Conversation

At the Bank's first Open Forum in 2015, Gillian Guy, Chief Executive of Citizens Advice, said something that has stuck with me. In a panel discussion on the role of finance in society, all panellists agreed on the need for improved public understanding of finance. Gillian added a crucial qualifier: improved understanding of the *public* by those in finance was every bit as important as improved public understanding of finance.

I think this is bang on and not just in the field of finance. Listening is every bit as important as talking when it comes to public policy. The most important reason for this is the most obvious – as policymakers, we stand to learn something. Indeed, because the voices of non-experts are rarely heard and are likely to convey different information than that available from experts, we potentially stand to learn a lot.

This is not just conjecture. Statistical studies, drawn from a great many different environments and involving very different decisions, show it to be the case. Expert opinion is an essential starting point for good decision-making. But only a starting point. The judgements of experts can be improved materially by drawing on the views of *non*-experts.[46] Doing so is the key to what Philip Tetlock calls "super-forecasting."

More fundamentally, non-experts are us. By numbers, if not salaries, they represent almost all of society. Non-experts do most of the spending and saving in the economy, shaping its growth. It is their wage and inflation expectations that determine whether central banks meet their inflation targets. And it is their trust that needs to be nurtured, and recaptured, if policy institutions are to maintain their legitimacy.

Yet extracting views on the economy from non-experts is not easy. It takes extra effort to engage with those with whom you may be unfamiliar. Often they speak a different language and have different starting points. Sometimes, for understandable reasons, economic matters are not especially interesting for them. The thing that makes these views worth listening to is the very thing that makes them sometimes difficult to hear.

One way of listening to the public is through structured surveys of households. Central banks, including the Bank of England, make extensive and increasing use of such surveys – for example, when gauging households' indebtedness, spending and confidence. They play an important diagnostic role when setting policy. Surveys are not, however, without problems.

[46] Tetlock and Gardner (2016).

One of the most important is that they use pre-determined sets of questions which may be "framed" by experts' views. If so, survey responses are likely to offer a restricted, often distorted, window on the non-expert world. Framed questions make for answers which conceal more than they reveal. One of the reasons experts have been surprised by how non-experts have behaved recently is because they have been asking closed questions or, worst of all, dismissing answers that do not fit their own view.

Avoiding this risk requires you to ask questions which are as open and unpolluted as possible by experts' priors and prejudices. This comes from listening, rather than just hearing. It comes from engaging in two-way conversation, from genuine dialogue not monologue. It comes from drawing on social skills every bit as much as cognitive skills.

Other professions offer an object lesson here. Why are doctors top of the trust league table? Studies show that what matters for doctors' patient satisfaction scores is not just their clinical competence. Indeed, their knowledge of the latest *Lancet* article is irrelevant. What matters every bit as much, or more, to patients' trust in their doctor is their social skills, their listening skills, their personal touch, their bedside manner.[47]

Few people would want an economist at their bedside. An economist with strong social skills is one who stares at your shoes, rather than their own, when engaged in polite conversation. And conversation does not appear to come easily to the economics profession. A recent study of Twitter behaviour found that economists were the least likely discipline to engage in general conversation, on topics such as Fluffy Labradors.[48] Their conversations are technical in nature and narrow in reach.

The Bank has recently re-oriented fundamentally its outreach programme to improve its engagement with non-expert audiences, with a less technical focus and a longer reach. The Bank's Agents around the UK have for many years collected intelligence on the economy and financial system, largely from companies. Recently, the Bank's Agents have placed greater emphasis on meeting charities, community and faith groups and trade unions, widening its non-expert contacts and expanding its intelligence pool.

Over a number of years now, I have been reorienting my own regional visits towards these groups. Earlier this year, I augmented these regional visits with a "Townhall Tour", partnering with charities, citizen and faith groups to engage with new sets of people across the whole of the UK. These are, by design, listening events. The main messages are captured in my blog and animations and photos from each of the events.[49]

The Townhalls have made clear to me the benefits of asking open questions, uncontaminated by priors and prejudices. They have taught me a lot about the economic and financial issues that really matter to people, only some of which are captured by economists' theories and surveys. They have underlined for me the

[47] Whittaker *et al* (2017), for example, found that patients were willing to wait longer for an appointment with a doctor with good listening skills.
[48] Holmberg and Thelwall (2014).
[49] Available from the Bank's website at http://www.bankofengland.co.uk/Pages/outreachevents.aspx

benefits of harnessing non-expert opinion when it comes to understanding the economy. And the Townhall visits, while not making me a super-forecaster, have thereby hopefully made me a slightly less bad one.

These Townhall visits are also an eye-opener for anyone in any doubt about the importance of the economy and economic policy to the everyday lives of most people. When someone tells you that a higher cost of living is, for them, the choice between heating and eating, it makes everyday economics real. It makes the MPC's concerns about rising inflation concrete. It is the reason I went into public policy.

The Bank is not the only body seeking to engage the wider public when discussing economic issues. The Royal Society for the Arts (RSA) has recently proposed setting up Citizen Economics Councils and Reference Panels designed to engage the public in economic policy debates.[50] I strongly support initiatives of this type. The Bank's own recent initiatives are seeking to achieve many of the same objectives.

(c) Education

When it comes to improving education on economics and finance, the public's views could scarcely be clearer. In surveys, around 80% of UK citizens say they think economics should form a part of the educational curriculum.[51] In the US, it is a remarkable 97%.[52] My own work in schools, and recent research by the Bank, has confirmed encouragingly high levels of interest and enthusiasm among children and young adults in better understanding the economy.

This is a wonderful endowment. If you look more closely at the statistics, it is easy to see why both adults and children feel so strongly. It is also easy to see why we might, unless we are careful, squander that endowment of public enthusiasm about understanding the economy. The risk lies, to some significant degree, in the current structure of the educational system.

In many subjects that have an important bearing on everyday decision-making, the educational system ensures broad capture during the early years. The aim is to give almost everyone the everyday essentials of the subject. Literacy and numeracy are prime examples here, where there is universal coverage during the early school years. This makes perfect sense in building the educational basics.

Take mathematics. This is compulsory for every student in the UK (and in many other countries), at least up to age 16. The bottom of the educational pyramid is, in effect, population-wide. After that point, the educational pyramid narrows quite sharply (Figure 1). Only 12% of the population studies maths between the ages of 16-18. And less than 1% study it beyond age 18, at college or university. This degree of specialisation also makes sense. Not everyone wants, or needs, to be Stephen Hawking.

50 Patel and Gibbon (2017).
51 ING-Economics Network Survey of the Public's Understanding of Economics (2017).
52 Report prepared for the National Council on Economic Education by Harris Interactive (2005).

How well the UK educational systems provide students with even the essentials of numeracy is another matter.[53] The statistics here tell an ugly story, with 17 million adults in the UK having numeracy skills no better than those expected of a primary school child.[54] And it is a short hop from innumeracy to financial illiteracy, where the figures are equally ugly.[55] Nonetheless, in coverage at least, maths education has a broad base, as befits a subject needed by almost everyone almost every day of their lives.

Turning to economics, the educational pyramid could not be more different (Figure 2). It is more diamond than pyramid. Economics is not a compulsory part of the school curriculum at any stage. Up to age 16, economics forms only a very small part of PSHE (Personal, Social and Health Education), a voluntary part of the curriculum. Surveys suggest that PSHE provision is patchy and has decreased significantly in recent years.[56] Among early-years children, there is little foundation for learning everyday economics.[57]

Beyond 14, students at some schools can opt to study economics. In practice, only around a third of schools offer this option. As a result, in 2016/17 only just over 9,000 students across the UK studied GCSE economics, typically between the ages of 14 and 16. That is a tiny 1.4% of the student population in that age range. These numbers have been flat over the past decade. More than a decade into their educational lives, then, the vast majority of students have had virtually no exposure to economics and business.

Beyond age 16 the number of schools offering, and students studying, economics picks up - the pyramid begins to widen. Around 33,000 students completed A-Level economics in the UK in 2016/17, typically studying between the ages 16 to 18. Encouragingly, these numbers have swelled, by around 70%, over the past ten years. That remains only 4.3% of the total number of young people in this age range.

Beyond 18, at university and college level, student numbers in economics have also been rising rapidly, with the number graduating reaching 9,000 in 2016/17, a rise of over a third in the past six years ago. This has increased the fraction of university-level students taking economics to over 2%, similar to subjects such as politics and accountancy. It is still of course only a tiny 1% of the total population in this age range.

If we look in greater detail at just who is taking economics, the selectivity bias is more acute still. At ages 16 to 18, around 22% of economics students are drawn from independent schools, more than double their population averages. At university, around a fifth of economics students are drawn from independent schools. So not only are economics student numbers pretty small, they have a heavy socio-economic slant. [58] The same may well be true of other subjects.

[53] National Numeracy (2017)
[54] See https://www.nationalnumeracy.org.uk/research-skills-life-survey-2011
[55] Money Advice Service (2017).
[56] PSHE Association (2017), Practitioner Survey
[57] Perhaps reflecting that, there is strong support among parents for PSHE having statutory status (PHSE Association, Parent Survey).
[58] There are also strong gender and ethnicity biases in the study of economics. There are discussed in, for example, Crawford, Davies and Smith (forthcoming), Tenreyro (2017) and Blackaby and Frank (2000).

Economics also appears to have a heavy regional slant, probably for related reasons. The fraction of students from London studying economics between ages 14 and 18 is roughly twice the national average. A student from the North-East of England, where I was born, is around five times less likely to study economics than one born in London. The fraction of the population of the North-East who is likely never to have had any education in economics could be as high as 98%, similar to levels in Wales and Northern Ireland.

This is a "good news/bad news" story. There are encouraging signs that economics is gaining in popularity in the upper tiers of the educational pyramid. But this pyramid is widest towards the top and narrow at the bottom, with a pronounced (societal and regional) slant. Such a structure is unlikely to be a strong and stable educational foundation for most people. Little wonder economics is perceived as remote and elitist.

Perhaps a reasonable question to ask – and even if it is unreasonable I am going to ask it anyway – is why the essentials of the economy and finance are seen as so much less essential than literacy and numeracy. Is financial literacy so different than general literacy, in its impact on people's lives and everyday decision-making, that it justifies such a different educational pyramid?

Gandhi is often claimed to have said: "Be the change you want to see in the world". I love that quote.[59] Through its public understanding role, there is change the Bank can effect in the area of economics education. Recently, it has begun doing so. The Bank has been working with the organisation 'We Are Futures' to develop material on the economy to be taught in schools to children aged 11-16. The aim is to help create that missing foundation stone in the economics educational pyramid.[60]

The Bank's programme is called EconoME. As its name suggests, EconoMe aims to link the economy and financial system to people's everyday lives; it is everyday economics. It seeks to give economics the same characteristics as sticky stories – local, personal, topical. Trial materials are available for teachers now. The programme will be fully launched in Spring 2018, with a state schools focus. Over time, we will seek to broaden the schools coverage and develop materials for 16-18 year olds.

To help with this roll-out, the Bank is increasing significantly the numbers of school visits it undertakes, with a target of 200 in 2018. We are working with the charities Speakers for Schools and Inspiring the Future to achieve that objective, again with a focus on state schools.[61] Importantly, these visits will not just include the Bank's top brass, but staff at every level. From personal experience, I know just how important and uplifting (at least for the speaker) these visits can be.[62] They are also the best media-training I have ever encountered, with performance feedback that is instant and brutal.

[59] As discussed by Morton (2011), this quote is widely attributed to Gandhi but is likely a case of paraphrasing his actual words.
[60] Specifically, the PSHE component of the curriculum.
[61] https://www.speakers4schools.org
[62] These and other initiatives were discussed at the Future Forum hosted by the Bank in Liverpool a couple of weeks ago.

The Bank has for a long time run a schools competition, Target 2.0. This had many virtues, but diversity was not one of them. In the 16 years the competition ran, independent schools accounted for 43% of the total participants and 56% of the national champions – large multiples of their population share. The Bank's new film competition, "Bank, Camera, Action" hopes to level that playing field. In its first year, this attracted 106 entries, with 80% of participating schools from the state sector.

Conclusion

A few months ago, I was giving a talk at a school in one of the poorest towns in the UK – indeed, one of the poorest in the EU. The school had a "Needs Improvement" rating from Ofsted. It had had 50% - that's five, zero – teacher turnover the previous year. The children attending were from poor backgrounds and had very low academic and career aspirations. I knew this was going to be a tough gig.

I ran through my material – why the economy mattered to them, what the Bank did for a living, what I did for a living *etc*. It was going about as well as I could have expected. There were plenty of attentive eyes and alert expressions. No-one walked out. "This is working", I told myself. 59 minutes into the one hour talk, I took a final question from a girl on the far-right in the front row. It is seared on my soul.

"Two questions", she said. "Who are you? And why are you here?" At that point, those questions seemed all too appropriate. Why exactly was I there? Several hours of introspection (and therapy) later, I now have an answer. The key comes in how you keep score. If in a classroom of 50 kids you reach only 1, what is your score? Have you lost 49-1?

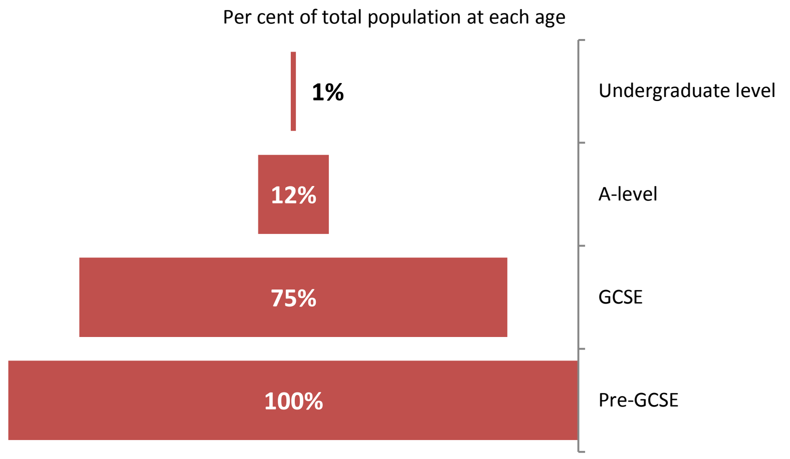
No. You have won 1-0. This is very important when it comes to judging the success of outreach initiatives, including the Bank's. Not engaging everyone is no reason not to try to engage someone. One is a good start. It increases the chances of two tomorrow and three the day after. The power of social networks, popular narratives and epidemics in expectations means you may be only one click from critical mass.

The Bank will not reach everyone, every day of their lives. Nor does it need to, given what we do for a living. People have more important things to do in their lives than think about interest rates and bank regulation, about price and financial stability. Or at least I hope they have. Indeed, central banks would be failing in their job if people were spending too much of their lives thinking or worrying about these issues.

Nonetheless, the actions of central banks are important for most people at key decision points in their lives. At those points, a trusting and understanding relationship between the central bank and the public matters. It matters for people when making good decisions. It matters for the economy when following a good course. It matters for policymakers when setting good policy. That is why everyday economics, terrible title and all, matters to the Bank of England.

Annex

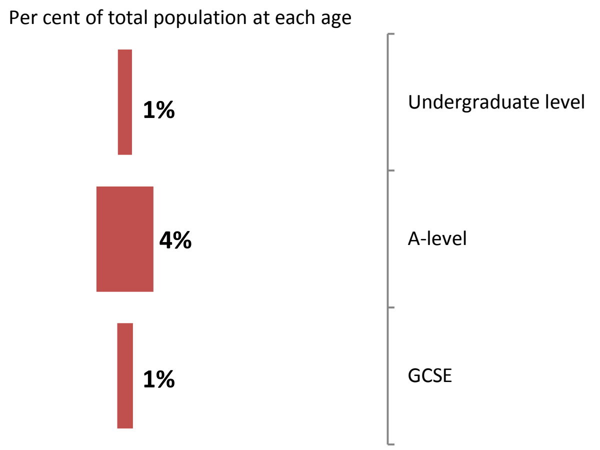
Figure 1 – Study of Mathematics



Sources: HESA, Joint Council For Qualifications, ONS and Bank Calculations

Notes: As mathematics is compulsory at younger ages, we assume that the percentage of students studying it pre-GCSE is 100%. Undergraduate level includes of the professional graduate certificate in education, foundation degrees, HND/DipHE and other undergraduate qualifications. This chart does not include Scottish qualifications.

Figure 2 – Study of Economics



Sources: HESA, Joint Council For Qualifications, ONS and Bank Calculations

Notes: We do not include pre-GCSE in this chart as the share of taught PSHE that includes economics will be variable across schools, and PSHE itself is non-statutory. This chart does not include Scottish qualifications.

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