

Speech by

**MERVYN KING
GOVERNOR OF THE BANK OF ENGLAND**

**TRUSTING IN MONEY: FROM KIRKCALDY TO THE MPC
THE ADAM SMITH LECTURE 2006**

on Sunday 29 October 2006

Lecture delivered on 29 October 2006 at St Bryce Kirk, Kirkcaldy, Scotland. I am indebted to Alex Brazier, Chris Salmon, Morten Spange and Tony Yates who have worked closely with me and are effectively co-authors. I am also grateful to Charlie Bean, Tim Besley, Iain McLean, Mark Cornelius, Andrew Hauser, James Proudman and Peter Rodgers for their helpful comments and to Kath Begley for valuable research assistance.

My Lord Lieutenant, Chancellor, My Lords, Ladies and Gentlemen,

In June 1767, Adam Smith wrote from Kirkcaldy to his dear friend David Hume: “My Business here is Study in which I have been very deeply engaged for about a Month past. My Amusements are long, solitary walks by the Sea side. You may judge how I spend my time. I feel myself, however, extremely happy, comfortable and contented. I never was, perhaps, more so in all my life”.¹ There is more wisdom in that remark than most busy people would ever care to admit, and it was perhaps that contentment which allowed his mind to wander far and wide – across the sea by which he walked – to imagine a society and an economy very different from the one in which he lived.

Last year I was in the audience when Alan Greenspan delivered the Adam Smith Lecture. Now I too share the privilege of speaking in the Kirk where Gordon Brown’s father used to preach to the people of Kirkcaldy. Double trouble, you might think. I am particularly mindful of the controversy which Greenspan’s lecture stirred in the world of Smith scholars: “an unseemly battle is being fought over the soul of Adam Smith”, as one remarked. It is a sign of the resurgence of interest in Adam Smith that at almost every point on the political spectrum one can find people who claim Smith as their own. But, in a lecture in 1926 to commemorate the 150th anniversary of the publication of *The Wealth of Nations*, the economist Jacob Viner wrote, “Traces of every conceivable sort of doctrine are to be found in that most catholic book, and an economist must have peculiar theories indeed who cannot quote from the *Wealth of Nations* to support his special purposes”.²

My intention today is certainly not to propose “peculiar theories”, but to examine the importance of social institutions in a market economy. Self-interest explains many economic decisions. But a market economy also requires social institutions.³ They represent collective agreements about how to constrain our actions. Some social institutions constrain our individual actions. For example, a market economy cannot flourish in a world of anarchy in which we suspect that everyone else will cheat. If I lend

you money it is in both our interests that there be some mechanism by which repayment can be enforced. So property rights, and courts to enforce contracts and adjudicate competing claims are examples of some of the social institutions required to support a market economy.

But there are other, and for my purposes more interesting, social institutions which constrain our **collective** actions, both now and in the future. In particular, it is on the need to constrain our **future** collective decisions on which I shall focus this evening. Such constraints are necessary to support the willingness to make transactions. For example, if people believe that there is a high probability that investment made today will be confiscated by the government in the future, they are not likely to make that investment. It would be beneficial if we could constrain ourselves not to confiscate in future. Constitutions can be rewritten, property rights revoked, and revolutions have been known to occur, illustrating the point that, as a society, we can never commit future generations – or even our future selves – to collective decisions. There is no way of enforcing that commitment. But we can try to find ways of making it more or less credible that we will, collectively, act in a way that is conducive to our long-run prosperity. So one of the most important ingredients of a successful market economy is the set of institutions that constrain our future collective behaviour. Such institutions have cultural and political roots, but they have economic effects. My focus tonight will be on money: money as a social institution that, in the words of Joel Gray in the 1972 film of *Cabaret*, makes the world go round. And I shall try to relate the origins of money as a social institution to the role of the Monetary Policy Committee today.

Let me begin, though, with Adam Smith himself. Despite a rather solitary life, much of it here in Kirkcaldy, and shunning invitations to join friends in Edinburgh, let alone London, he wrote two great works – *The Theory of Moral Sentiments* and *An Inquiry into the Nature and Causes of the Wealth of Nations* – that owe much to careful observation of the world and contain numerous practical examples of how industry and society worked. They are no dry academic treatises but commentaries on the world around him. They contain many insights, two of which are particularly relevant to my theme. First, to

reap the benefits of the division of labour requires social institutions that give confidence to people to take up specialised employment. Social institutions and market economies go hand in hand. Second, people who, for the most part, pursue their own self-interest, are also prepared to stand back and ask how their actions should be constrained by social institutions. Such institutions arise because we build them.

On the first, *The Wealth of Nations* begins with the most famous example of Smith's commentary. He explains the idea of the division of labour by looking at a "very trifling manufacture", namely "the trade of the pin-maker":

"a workman not educated to this business ... could scarce, perhaps, with his utmost industry, make one pin in a day, and certainly could not make twenty. But in the way in which this business is now carried on, ... it is divided into a number of branches ... One man draws out the wire, another straightens it, a third cuts it, a fourth points it, a fifth grinds it at the top for receiving the head; ... the business of making a pin is, in this manner, divided into about eighteen distinct operations".⁴

Smith describes seeing a small factory of this kind in which the daily output of pins was almost 5,000 for each person employed. Specialisation increases productivity. The division of labour permits "this great increase of the quantity of work".⁵ But the higher living standards which the division of labour permits require institutions that allow us to exchange what we each produce. Smith described how "in a nation of hunters, if any one has a talent for making bows and arrows better than his neighbours he will at first make presents of them, and in return get presents of their game".⁶ But a man who spends all day making arrows to swap them for meat gives up the chance of hunting himself for the chance of sharing in a larger catch. For the group to specialise, the hunter who turns arrow-maker has to be sure that his partner in trade will deliver the "present" of meat. When the timing of these exchanges is not coincident, there is a need for social institutions to prevent one party renegeing on the transaction, and, in particular, for money – an issue that I will return to later.

Smith's second insight was that the social institutions necessary to exploit the full potential of a market economy were not derived from the relentless pursuit of self-interest, but from the recognition that we all benefit from what he described in *Theory of Moral Sentiments* as the exercise of "sympathy". In other words, we step back from our immediate situation and ask: how do my actions affect others? Answering that requires an ability to imagine ourselves in others' shoes – "sympathy". That sympathy in the hunter, for example, might mean feeling the pain of a starving arrow-maker.

Smith argued that we "are endowed with not only a desire of being approved of, but with a desire of being what ought to be approved of..."⁷ He talked about an "impartial spectator" whose judgment we imagined and imposed as a constraint on our behaviour. Smith thought the "impartial spectator" fundamental to an orderly and prosperous society. It is what stops the hunter from breaking his promise to share his meat and, knowing that, it is what gives the arrow-maker the confidence to stop hunting. It was the "main pillar that upholds the whole edifice. If it is removed, the great, the immense fabric of human society... must in a moment crumble to atoms".⁸

But Smith recognised our own frailty. The temptation to follow our immediate self-interest could sometimes be overwhelming, and our own 'selfish passions' would take precedence over the judgment of the "impartial spectator". As commercial society evolves, and we exchange with those much more remote from us, our human frailties matter more. We need a mechanism to help us exhibit the "sympathy" that is both desirable and necessary.

We need social institutions to bolster our often erratic ability to see things from the perspective of the impartial spectator. These social institutions are not just given to us. We choose to build them as a framework for collective decisions that constrain individual behaviour. We make them, and sometimes we break them.

These two points from Smith's commentary – the importance of institutions and our desire to build them – are closely related to the role of trust in a modern economy.⁹ How

could we drive, eat or even buy or sell unless we trusted other people? It is surely trust not money that makes the world go round. Indeed, we shall see that money works only when it is trusted. But human frailty implies that trust can be placed more easily when it is supported by institutions. Those institutions may well require trust, but equally trust requires institutions.

Many economists – including Viner in the essay I have already quoted – have regarded Smith’s analysis of self-interest in *The Wealth of Nations* as inconsistent with his discussion of “sympathy” in his *Theory of Moral Sentiments*. In one of the best-known sentences from *The Wealth of Nations*, Smith points out “It is not from the benevolence of the butcher, the brewer, or the baker, that we expect our dinner, but from their regard to their own interest”.¹⁰ Smith, so the critics argue, failed to integrate the thinking in his two great works.¹¹ It would not, to coin a phrase, be a sensible division of labour for me to enter the debate about whether his two great works form a consistent whole or represent two different and inconsistent viewpoints. Smith was a cautious and often obscure author. What we know of his theory of law and government is through the notes of two students who attended his lectures on jurisprudence. His failure to produce the projected third great work means that we do not know what institutions he thought would best support a market economy. But irrespective of what Smith thought, two things are clear. History is littered with failed attempts to order society without reference to individual incentives. And we understand the need for social institutions to constrain our actions.

Since Smith, economists have underplayed the importance of institutions, although there have been notable exceptions such as Douglas North and Ronald Coase. Over the centuries, theories of a competitive market economy have been refined. From these theories flows the remarkable result that, under certain conditions, the pursuit by each person of their individual self interest leads to a more efficient outcome for society as a whole. That work reached its apogee in the post-war work by Kenneth Arrow and Gerard Debreu. Those economic models are, however, silent about many of the institutions that are fundamental to the results.¹² But without the appropriate institutions we tend to

anarchy not prosperity. The challenge facing us is to design and maintain the right set of institutions or laws, and to abolish the unhelpful ones. And it is that challenge of institutional design to which I now want to turn.

As Governor of the Bank of England, you will not be surprised to learn that money is a social institution close to my heart. It is crucial in facilitating exchange and therefore, in allowing the division of labour. Smith explained that “when the division of labour first began to take place, this power of exchanging must frequently have been very much clogged and embarrassed in its operations.”¹³ He was referring to the absence of what economists call a ‘double coincidence of wants’: the hunter wants arrows and the arrow-maker wants meat. Without that double coincidence exchange cannot take place through barter.

Promissory notes, or ‘IOUs’, can act as promises to deliver in the future. And they could, in principle, circulate – we could then exchange with people whose own produce we don’t actually want. Imagine Smith’s primitive arrow-maker doesn’t want meat. He can still exchange his arrows for a promise of meat from the hunter. But he will do so only if he is sure that others, whose output he does want, will accept the hunter’s IOU. And that depends on whether the arrow-maker believes that others will trust the hunter’s promise to pay. Once future delivery is part of the exchange, trust is essential.

So we need to be able to trust in the promises of others to pay. In large commercial societies, where the ‘I’ is remote from the ‘U’, relying on our own human “sympathy” is unreliable – debtors would be tempted to default with those they have never met. We recognise that we need a social institution. One such is a legal system that can be used to enforce IOUs. But enforcement is costly. These problems encouraged us to build another institution – money. This recognition that money is necessary because of our own frailty in honouring IOUs suggests that “evil is the root of all money”.¹⁴

Smith had seen how commodities like “dried cod at Newfoundland; tobacco in Virginia; sugar in some of our West India colonies” had been used as money and how there was

even “a village in Scotland where it is not uncommon, . . . , for a workman to carry nails instead of money to the baker’s shop or the alehouse.”¹⁵ These commodities guaranteed a double coincidence of wants - most people smoked, needed to preserve meat with salt, and ate fish. And because these commodities have intrinsic value, the trustworthiness of our trading partners was not an issue. Salt is salt whether offered by an honest trader or not.

But it is costly to produce and hold large stocks of these commodities. Salt kept to one side for use as money has to be mined, and cannot be used to preserve meat. And the quality and quantity of the commodity is not easily verifiable. In fact, this was a pressing concern for Smith as a university lecturer because he would have been paid in person, in coin or specie, by his students before the lectures began, something which I regret I forgot to do this evening. Smith’s close friend, the chemist Joseph Black, said that he was “obliged to weigh when strange students come, there being a very large number who bring light guineas, so that I should be defrauded of many pounds every year if I did not act in self-defence against this class of students.”¹⁶

And so we reach paper money. I have here a £20 note. What is it? Money you say. Surely it is just a piece of paper. What is the difference between a piece of paper and money? You can “buy stuff with it”.¹⁷

Why can we get anything in exchange for these intrinsically worthless pieces of paper? It is because those to whom we give the paper expect that they will, in turn, be able to get something for it. That rests on the expectation that whoever they pass the paper to will in their turn be able to get something for it, and so on, ad infinitum. In short, the value of money depends on trust.

But it is not easy to trust paper money unless we trust the issuer. Much of the financial history of the past 150 years is the story of our collective attempts to manage paper money. In a democracy, we can’t force people to use paper money, although after the French Revolution the Jacobins had a try. They made it a capital offence to use

commodities as money! This was a desperate and unsustainable action resulting from the Jacobin policy of debasing their paper money – the Assignat – to make up for a collapse in tax revenues and to finance a war against Prussia.

A more sensible solution is to create institutions in which we can have trust. On the front of this Bank of England £20 note is written “I promise to pay the bearer on demand the sum of Twenty Pounds”. In essence, the promise is that the “stuff” that you can buy with this note does not change much from one year to the next. In other words, the general purchasing power of the note is broadly stable – we have price stability. Our ability to maintain price stability depends upon an institutional framework which is expected to persist. That depends on all of us acting collectively – the value of a nation’s money is inherently a political choice. Inflation arises when the collective political commitment to maintain price stability weakens.

When high rates of inflation are anticipated, people wisely avoid holding paper money. As I said in my Ely lecture in 2004, “the demand for money today depends upon expectations of our collective decisions about the supply of money tomorrow.” In the twentieth century Germans saw their savings wiped out by hyperinflation. And as recently as 1990, Argentina experienced hyperinflation. I have been told that when people gave up using paper money in Argentina, they resorted to IOUs which were taken to the local Catholic priest for endorsement. Those IOUs were trusted because to renege on a promise endorsed by the priest would have very serious consequences, whether in this life or the next.

It is sometimes tempting – as the examples of the Jacobins, Germany and Argentina show – for issuers of money to issue too much of it: cheap money and plenty of it, as the saying goes.¹⁸ A public monopoly of paper money raises the question of how can we prevent the institution managing that money from abusing its issuing power. We cannot commit future generations – or even ourselves – to a particular policy. So how can we design an institution to create the reasonable expectation that money will retain its value?

In 1997 a new institution – the Monetary Policy Committee of an independent Bank of England – was set up. And for the past decade inflation has been low and stable and economic growth more stable than at any time in living memory. Just as importantly, yields on government bonds indicate that inflation is expected to remain low over the next fifty years. Gordon Brown deserves great credit for taking the time to design the institutional arrangements so carefully in advance. This was not a traditional “make it up as you go along” approach to British economic policy.

In fact, the design is a good example of how to overcome the fundamental constraint faced by social institutions. That constraint is that it is both impossible and undesirable to enforce binding commitments on the collective decisions of our successors. It is impossible because there can be no outside enforcer. It is undesirable because we cannot imagine or articulate every possible future development.

As such, institutions must have, and be likely always to have, widespread support. Their design must meet three principles. First, in order to maximise the breadth and permanency of support, the objective should be as clear as possible. Second, the institution must have the appropriate tools and competence to meet those objectives and be held accountable for doing so. Third, for the institution to command widespread support, the design must reflect history and experience.

How do our current monetary arrangements meet these requirements?

First, the objective – the inflation target – is clear. It is 2% for CPI inflation.

Second, responsibility for setting interest rates has been delegated to a group of people – the Monetary Policy Committee – with the appropriate technical competence and who face incentives focussed on meeting the target. Expert judgment is needed because changes in the way the world works mean that monetary policy cannot be run on autopilot.¹⁹ The members of the MPC are able to exercise their own discretion over how to

meet the target. Members of the Committee are held publicly accountable for their individual votes.

Third, these arrangements reflect both our experience of previous monetary failures and the nature of accountability in our political system. The separation between the elected government which sets the target and the Monetary Policy Committee which makes the month-to-month decisions on the level of interest rates necessary to meet the target is natural in our Parliamentary system. Since countries vary in their political constitutions it is not surprising that their monetary constitutions also differ.

The apparent success of the MPC has led many to ask whether aspects of its design could be carried over to other areas of public policy. The principles of widespread support for the objective of policy, the incorporation of the lessons of history, and the need to ensure technical expertise have general applicability. In the case of monetary policy, there is widespread agreement on the objective of low inflation, the design has taken on board the lessons from our post-war experience about the difficulty of targeting monetary aggregates or the exchange rate, and the MPC has been set up to include appropriate expertise. Moreover, the MPC has to set only a single instrument – Bank Rate.

It may not be easy to find other areas of policy to which the MPC example can be immediately applied. But it is certainly worth thinking imaginatively about the possibilities for in other areas in which trust in future collective decisions is necessary. Pensions policy, for example, has for years been bedevilled by a combination of extraordinary technical complexity, which means that decisions take a long time to reach, and the reversal of policies adopted by earlier generations. This is very much an area where we have been unable to constrain future collective decisions. And it is one that would benefit from greater stability of policy.

At the international level, the importance of constraining future behaviour can be seen in such diverse areas as trade policy and climate change. The difference in the degree of agreement on the objectives of policy can be seen in the difference between the

institutions that have been set up to deal with those issues. But even the World Trade Organisation, despite the critical importance to the world economy, and especially its poorer citizens, of opening up trade, has found it difficult to arouse sufficient “sympathy”, to use Smith’s word, to get agreement on constraints on our future behaviour.

But let us not be pessimistic. The three principles of institutional design may be helpful in thinking about future collective decisions in areas as diverse as health, education, pensions and taxation, just as they were in constructing a new monetary policy framework. But that is for others to take forward.

Conclusions

I recognise that the success of central banks in keeping inflation low and stable over the past decade may owe something to good fortune as well as to good policy. But, as the legendary football manager Bill Shankly used to say, “it’s strange, but the better we play, the luckier we get”. What really matters, however, is that we as central bankers acknowledge that we owe everything to the design of the institutional framework. As I have argued this evening, a central part of Adam Smith’s legacy is an appreciation of the essential role played by social institutions. So it is appropriate that it was another son of Kirkcaldy who, over two hundred years later, created the new institutional framework for the Bank of England in 1997. As Niccolo Machiavelli wrote in *The Prince*, “Nothing brings a man greater honour than the new laws and new institutions he establishes”. A Scotsman founded the Bank of England, and it took another to reform it. Next year we celebrate the tercentenary of the Act of Union, an Act strongly supported by Adam Smith. And we now have a successful and prosperous union between our two countries with a common monetary institution which embodies the ideas not only of Adam Smith and his great friend David Hume, but also of the key principles that should govern institutional design.

From the division of labour in the pin factory to the need for our mutual “sympathy” to be embodied in carefully designed institutions, Smith’s writing is remarkable by its comprehensive and eclectic examination of ideas and facts. So it is appropriate that tonight here in Kirkcaldy, where Adam Smith found contentment in study and reflection, I can announce that tomorrow the Bank of England will reveal its new £20 note. And the figure celebrated on the new note will, of course, be Adam Smith - the first economist and the first Scotsman to appear on a Bank of England note. From next spring, when visitors to our country look carefully at their new £20 notes, they will be able to see an engraving showing the division of labour in pin manufacturing with the words “and the great increase in the quantity of work that results”. I hope they will absorb the lesson that specialisation in production and trade across the world are the way to improve living standards in all countries – rich and poor alike. And perhaps when they return home they will press their own politicians to support the opening up of trade which has been at the heart of the British Government’s efforts to reform the world economy.

So you should be proud of your famous son who, despite being “an absent-minded professor” who led a “quiet, uneventful life”, influenced the way the whole world thinks about the route to economic prosperity.²⁰

Let me conclude by returning to the words of Jacob Viner:

“In these days of contending schools, each of them with the deep, if momentary, conviction that it, and it alone, knows the one and only path to economic truth, how refreshing it is to return to the *Wealth of Nations* with its eclecticism, its good temper, its common sense, and its willingness to grant that those who saw things differently from itself were only partly wrong”.²¹

Truly, Adam Smith was a man of the Scottish Enlightenment, and I am delighted that from next year his face will look out at us from our banknotes.

REFERENCES

- Blinder, A and Morgan, R (2000), 'Are two heads better than one? An experimental analysis of group vs individual decision making', NBER working paper no 7909, September.
- Buchan, J (2006) *Adam Smith and the pursuit of perfect liberty*, London: Profile Books.
- Coase, R (1991), 'The institutional structure of production', Nobel lecture.
- Hayek, F (1976) *Denationalization of money*, London: Institute of Economic Affairs.
- King, M (2002), 'The monetary policy committee: five years on', Speech delivered to the society of business economists.
- King, M (2004), 'The institutions of monetary policy', Ely Lecture, American Economic Association annual meeting, San Diego.
- Kiyotaki, N and Moore, J (2002) 'Evil is the root of all money', *American Economic Review*, 92,2,p62-66.
- Lombardelli, C Proudman, J and Talbot, J (2005), 'Committees versus Individuals: An experimental analysis of monetary policy decision making', *International Journal of Central Banking*, 1, 5.
- Machiavelli, N (1515), *The Prince*.
- McLean, I (2006), *Adam Smith: Radical and Egalitarian, an interpretation for the 21st century*, Edinburgh University Press, Edinburgh.
- O'Neill, O (2002), 'A question of trust', The Reith lectures.
- North, D (1993), 'Economic performance through time', Nobel lecture.
- Rae, J (1895), *A life of Adam Smith*, Kelley, New York.
- Rothschild, E (2001), *Economic Sentiments: Adam Smith, Condorcet, and the Enlightenment*, Harvard University Press, London.
- Smith, A (1762), *The theory of moral sentiments*, in *The Glasgow edition of the works and correspondence of Adam Smith*, vol 1.
- Smith, A (1766), *Lectures on Jurisprudence* in *The Glasgow edition of the works and correspondence of Adam Smith* vol 6: manuscript B, 'Report dated 1766'.
- Smith, A (1776), *An inquiry into the nature and causes of the wealth of nations*, in *The Glasgow edition of the works and correspondence of Adam Smith*, vol 2.
- Viner, J (1927), "Adam Smith and Laissez Faire", *Journal of Political Economy*, 35 No.2, 198-232.

ENDNOTES

¹ Letter to David Hume, 7 June 1767, in *The Correspondence of Adam Smith*, Glasgow Edition of the Works of Adam Smith, 2nd Edition, p.125.

² Viner, J. (1927), “Adam Smith and Laissez Faire”, *Journal of Political Economy*, 35 No.2, p207.

³ There are, of course, many private institutions, such as companies, charities and universities. But in this lecture I shall be concerned only with social institutions that relate to collective decisions.

⁴ *Wealth of Nations*, I.i. p14.

⁵ Did Adam Smith ever visit a pin-factory? He was certainly a careful observer of the world around him. As Buchan (2006, p.12) wrote, “He had visited dye-works, pin-makers, brewers and distilleries”. His description in the *Wealth of Nations* of “a small manufactory ... where ten men only were employed” makes clear that Smith did, at some point, visit a pin factory, but there is little evidence as to where that was. And most scholars believe, with good reason, that Smith took the example of a pin-factory from the *Encyclopédie*, edited by Diderot and d’Alembert and published in France in 1755 – the article on *épingle* describes in some detail the eighteen operations identified by Smith. I am indebted to Professor Iain McLean of Nuffield College, Oxford, for drawing this entry to my attention. But his example of nail-making a few pages further on did come from personal experience, since the manufacture of nails took place in the villages of Pathhead and Gallatown which Smith visited on his regular long walks.

⁶ *Lectures on Jurisprudence*, B, Report dated 1766, p493.

⁷ *Theory of Moral Sentiments*, III,ii,7,p117.

⁸ *Theory of Moral Sentiments*, II,ii,3.3,p86.

⁹ In her 2002 Reith lectures “A Question of Trust”, Onora O’Neill argued that in order to interact with others, both as individuals and institutions, trust plays a crucial role.

¹⁰ *Wealth of Nations*, I,11,2,p26.

¹¹ Rothschild (2001) puts Smith’s writings in the context of the Enlightenment and, while pointing to the complexity of Smith’s views and his caution in expressing them in public, paints an overall picture of a man who is not best described as a split personality.

¹² Economists have grappled with the challenge of understanding worlds in which there are not markets for everything. Coase understood the existence of firms to be a manifestation of how market based exchange between employers and employees was not efficient (see his 1991 Nobel lecture, for example). More recently, economists like Kiyotaki and Moore (an example is their 2002 paper) and many others have built models in which debt markets are incomplete because it is costly to enforce contracts, and which constrain the amount individuals can credibly borrow and pay back. These models can also be used to explain how money comes to exist, as I discuss below. Another body of work that seeks to study the institutions that underpin market exchange is the subject that has come to be known as ‘law and economics’. Scholars in this field study the economic origins and consequences of the legal system. See, for example, many works by Gary Becker, Ronald Coase and Richard Posner.

¹³ *Wealth of Nations*, I, iv,p38.

¹⁴ See Kiyotaki and Moore (2002).

¹⁵ *Wealth of Nations*, I, iv,p38.

¹⁶ Rae (1895), p 49.

¹⁷ Smith recognised this too: “though the wages of the workman are commonly paid to him in money, his real revenue, like that of all other men, consists, not in money, but in the money’s worth; not in the metal pieces, but in what can be got for them” *Wealth of Nations*, I,ii,p295.

¹⁸ Hayek (1976) thought this temptation might be overcome by allowing competitive private banks to issue their own paper monies – the threat of competition would stop them over-issuing. But the costs of using several different monies, and the need to monitor the change in their relative values, reduce the benefits from using paper money as a means of payment. Competitive monies have arisen only rarely and usually in situations where government money is either absent or very badly managed.

¹⁹ There is some evidence that committees make, on average, better decisions than individuals. See King (2002), Blinder and Morgan (2000) and Lombardelli, Proudman and Talbot (2005).

²⁰ McLean (2006).

²¹ Viner, J. 1927, p232.

ENDS