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THE FINANCIAL CRISIS, PRIVATE AND PUBLIC DEBT

- Contrasting the approaches of economics and theology -

Paper prepared for the Evangelical Alliance Study Group on "Life After Debt"

by

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Introduction

The current financial crisis is widely seen as the most serious and far-reaching economic event since the Great Depression of the 1930s. And yet the volume of analysis from a Christian, as opposed to an economic or financial perspective, has been relatively small to date.[2] There is a risk that the church will lack a critical voice in current debates, and hence be seen as irrelevant. This would be a travesty, since in fact the Biblical point of view has a great deal of distinctive analysis to contribute, especially when set alongside the ruling paradigm of today, that of economics.

In this context, this paper has three aims. First, it seeks to provide distinctive Christian-Economics analyses, deriving policy implications from a biblical point of view, informed by economic thought – giving the church a distinctive voice in a time of economic crisis. Second, it aims to provide material for ministers seeking to understand and interpret the crisis to their congregations. And third, it seeks to highlight in a prophetic manner radical Christian solutions to some of the current difficulties, while there are still open ears and before vested interests reassert themselves. The paper focuses on three key aspects of the crisis, understanding the role and incentives of the bankers, the plight of households with indebtedness, and the massive rise in public debt.

The paper is structured as follows: In a first section we outline the events of the financial crisis from a descriptive stance, albeit informed by financial economics. This is complemented by a second section that contrasts the views of humanity given by economics and Christian theology. With these as background, we proceed to three main sections on the role of banks, household debt and public debt. In each case we present considerations from economics and theology separately, and then seek to identify tensions and complementarities between them, seeking to arrive in turn at policy or other prescriptive suggestions. In a final concluding section, we seek to bring together these suggestions and sketch an overall Christian response to current events.

1 Events of the financial crisis

It is important to note that the crisis in a generic sense was not an unusual event (see Appendix 1). As has been the case for many other crises of recent decades[3], it was preceded by growing vulnerability of the economy and financial system to shocks in the form of a credit boom, financial innovations, increasing indebtedness of financial institutions, risk taking, and the formation of an asset price bubble. This makes it surprising that it was not better forecast.[4] That said, there were some idiosyncratic features. Since the bubble and the riskiest lending was in US housing, sub-prime related debt was its proximate cause. The size, global integration, and the complexity of the US financial markets made it inevitable the crisis would become global. And high household debt in the UK and an even bigger bubble in housing made the UK economy highly vulnerable. An outline of key features of the crisis follows – those already familiar should proceed to Section 2:[5]

Global interest rates over 2000-7 were low. One reason for the boom that preceded the crisis was high levels of "global liquidity". Countries such as China, Japan and Korea, which were saving more than they invested at home, built up current account surpluses and foreign

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[2] One exception is Booth (2009).
[3] See Davis (1995) and Davis and Karim (2009).
[4] See Davis and Karim (2008) for an assessment of the degree to which the crisis was forecast by major UK and international financial organisations.
[5] See Barrell and Davis (2008) and Davis (2009) for more detail.

exchange reserves. In effect, such countries lent money on a massive scale to deficit countries like the UK and US. As a result of such a flood of global liquidity, global real (inflation adjusted) interest rates fell after 2001 and long term real rates were probably 1 percentage point below their level of the previous decade. There were also low short term real interest rates arising from the easy monetary policy in countries such as the US. These low interest rates were naturally reflected in low interest rates for loans, making them attractive to borrowers.

A lending and asset price boom took place over 2000-7. In this environment of cheap credit, lending grew at unprecedented rates, especially in countries like the US, the UK and Spain, where house prices also rose rapidly. The lending was often to types of borrower (such as sub-prime and buy-to-let borrowers) who had been previously excluded or rationed in access to mortgage credit, due to the high level of default risk they pose to the lender. They were offered large amounts of credit, especially in the US, and to a lesser extent in the UK. Some borrowers falsified their incomes to get more credit. More creditworthy borrowers also increased their debts markedly, sometimes to buy new homes but often also to release equity from their homes for consumption purposes. No doubt partly driven by release of credit constraints, real house prices in the UK and the US rose far above their longer-term trend. House prices became similarly overvalued in countries such as Spain.

Policy errors were committed. Low short term interest rates in the US were initially a response to the equity price collapse of 2000-3, whose feared deflationary impact they sought to counteract. But it can be argued that the equity price fall was soon more than offset by the above-mentioned debt-financed housing boom, which gathered strength as equity prices recovered in 2003-4. The credit and housing boom was hence not counteracted by monetary policy that stayed "too loose for too long" especially in the US. Although there were warnings by central banks and international organisations of risks of a financial crisis resulting from the debt and asset price boom, very little was done beyond cautionary speeches by Central Bank Governors (so-called "moral suasion") to counter the boom. Monetary policy was not tightened till the boom was far advanced, and bank regulation did not counteract the growing risks banks were running. Fiscal policy was also loose, as discussed further in Section 5.

There was widespread financial innovation, speculation and easy lending by banks. Low interest rates in turn prompted a "hunt for yield" on the part of banks and institutional investors, as both they themselves and their savers sought a reasonable return on their assets. In this context, high-yielding financial innovations such as asset backed securities (ABSs)[6] became popular as a source of profit for banks. ABS are basically means whereby banks making loans can package them and sell them to investors as bonds, a process known as securitisation.

In issuing ABS, lender banks would profit from up-front fees for loans (such as those to sub-prime borrowers) without having to hold the loan on the balance sheet. Any type of loan seemed to be suitable for securitisation in the 2000-7 period, and especially subprime loans, i.e. to borrowers of low credit quality. The ABS that were most central to the crisis have the interesting property that a bunch of poor quality loans can be made (or seem to be made) into mostly top quality securities. It's as if lead can be made into 80% gold and 20% plutonium-nuclear waste. The maths seemed to be correct….

[6] We use the term ABS also to refer to collateralised debt obligations (CDOs), which are basically securities formed from individual ABSs. There were also CDO-squared which were CDOs made of other CDOs. The more complex the product, the more impossible it was to find out what assets were actually backing them.

There is a further "twist" in that securitisation reduces the incentive of such lender banks to assess such loans for credit quality, since the ABS holder would take the risk of default. This helps explain the risky loans to subprime, buy to let etc. borrowers that were made during the boom – the lender bank did not bear the risk. Some such loans were actually known as "liar loans" because the bank lending officer would induce the client to exaggerate their income so as to get a larger loan.

Banks also made their own balance sheets more risky in the search for profit (see Appendix 2). They reduced their liquid assets, given low interest rates that could be earned on them, leaving them with less cover for any emergency needs for finance. They grew their balance sheets via aggressive wholesale liability management (i.e. borrowing from other banks and money markets rather than retail depositors). Furthermore, they both invested in ABS themselves and shifted such securitised assets to off-balance-sheet vehicles called conduits and special investment vehicles (SIVs), in order to avoid capital requirements (see Appendix 2 for further clarification). So paradoxically, while they knew that their own loans backing ABS were substandard, they were willing to give the benefit of the doubt to loans backing other banks' ABSs. And of course they were also substandard – typically 20% gold and 80% plutonium-nuclear waste.

It is clear that banks took on more credit risk than they otherwise would, particularly via ABSs albeit also in more usual balance sheet lending. Reasons may include the scope for securitisation and the impression of liquidity it gave, high credit ratings and yields on ABS, and the seeming precision of risk models based on inadequate data. All this despite the fact the ABS were extremely difficult to understand and had not been tested in a downturn – like drugs whose side effects are unknown but which are marketed anyway. The crisis in fact showed that the risk models for the ABS were flawed, and did not allow for the possibility of US house prices falling as they did. It also showed the gross errors in assessments by the rating agencies, which stated that the "gold" ABS bonds were almost risk free.

Numerous takeovers occurred in banking and finance. The boom in lending, asset prices and innovation was accompanied by a peak in mergers and acquisitions in the financial sector, with the takeover of the Dutch bank ABN-AMRO by RBS being a key example. Such takeovers were later to ensnare the buyers, given the debt they had incurred for the transaction, as was also the case for Lehman Brothers' purchase of the property company Archstone in 2007.

There was a collapse in confidence and asset prices, leading to losses for banks. 2007 saw growing realisation of potential losses on sub-prime mortgages as US house prices fell and defaults increased. By October 2008 the IMF (2008) estimated such losses as $1.4 *trillion*. These losses, along with uncertainty and sudden realisation that banks did not understand the properties of the ABS, combined to generate sales of ABS. Sales led in turn not just to price falls but also market liquidity failure. In other words the ABS bonds could not be sold at any price. Since banks hold securities at so-called mark-to-market pricing, they made immediate losses[7] as prices of ABS went into freefall while the assets themselves could not be disposed of. Effects were felt not only by US banks and also by European banks that had bought ABS of sub-prime loans. Bank conduits and SIVs could meanwhile no longer obtain financing which meant sponsoring banks had to take the often-"toxic" ABS assets they held back on their balance sheets, thus aggravating the situation for the banks.

[7] This was unlike banking crises in the past where loans have typically been held on balance sheet at historic cost with no specific price. Banks were hit far quicker.

Freezing of securitisation and interbank funding ensued. By late 2007, banks were unable to securitise the mortgages and other loans they were issuing owing to liquidity collapse of the ABS market. They also experienced calls on backup lines of credit for conduits and SIVs. Accordingly, the banks "hoarded liquidity" in order to provide sufficient funding for their ongoing business. This hoarding was also motivated by fear of that other banks they might lend to on the interbank market might bear undisclosed losses on ABS. So, interbank funding began to be withdrawn – an unprecedented event in the domestic markets of the advanced industrial countries. Other forms of wholesale credit also became hard to obtain. Banks in general were vulnerable to effects of reduced such wholesale and interbank funding due to their low holdings of liquid assets, growth in reliance on short term wholesale funding and dependence on securitisation.

Banks in the wake of this sought to reduce balance sheet lending, at the same time that borrowers were rendered cautious by house price falls, leading to unprecedented falls in mortgage lending. The ongoing process unleashed by the crisis can be referred to as deleveraging (IMF 2008), as banks and other institutions sought to reduce exposure to high risk sectors, selling assets or reducing asset growth, as well as reducing dependence on unstable wholesale funding and rebuilding capital adequacy. The process was accelerated by the ongoing fall in asset prices and rise in private sector defaults on loans, as well as by closure of securitisation markets. Central banks offered massive volumes of liquidity to supply banks and seek in vain to restart the interbank funding markets.

Bank failures took place. An early consequence of the collapse of wholesale funding markets was the failure of the solvent UK mortgage bank Northern Rock, which had an aggressive wholesale funding ratio and had been relying on securitising assets, which was no longer feasible (Treasury Committee 2008). It suffered "runs" in both wholesale and retail markets (see Appendix 2 for a discussion of "bank runs" and the fragility of banks in periods of crisis). Beyond Northern Rock, failures in 2007 included mainly two small German banks. The casualties of this ongoing pattern in 2008 were much more important. Up to September, they included the US firms Bear Stearns (taken over with government guarantees), IndyMac (failed) and Fanny Mae and Freddy Mac (effectively nationalised).

By September 2008 it seemed that the crisis was ongoing, but not worsening. But following the bankruptcy of the major US investment bank Lehman Brothers (unsupported by the authorities) in mid September there was a sharp worsening of market conditions. The process of deleveraging became disorderly as counterparty risk perceptions ballooned. The equity market, which had been surprisingly little affected by the crisis up to that point, began to fall sharply. This particularly reflected low confidence in banks that were dependent on wholesale funding, because markets for such funds, that had previously been costly and restrictive, proved to be totally closed to such institutions after Lehmans' failure. Cross border lending was even more sharply curtailed than domestic.

There were fiscal injections and "lender of last resort" assistance to save failing banks. The authorities acted in the wake of the worsening of market conditions. Provision of liquidity to the markets increased further. The US authorities suggested and passed the Paulson plan which was designed to restore liquidity to the markets by using $700 billion to buy up ABS. However, this plan did not address the solvency of the banks directly, and left many exposed. The American Insurance Group (AIG) had made a major foray into insuring complex products, and had lost most of its capital base when default rates rose to ten times those on which policies were based. It, along with Bradford and Bingley in the UK had to be nationalized in succession. Merrill Lynch and Wachovia were taken over. Washington Mutual was closed by regulators and sold to JP Morgan Chase. The remaining US investment banks had to become bank holding companies. Banks dependent on cross border financing were hardest hit. For example, the two major Belgian banks have had to be nationalized and all three Icelandic banks, in which many UK savers had been induced to invest with high deposit rates, failed in October.

Significant public sector stakes totaling £37 billion were taken in three major lenders in the UK, HBOS, RBS and Lloyds in order to ensure their solvency. Guarantees were offered for their liabilities and the Bank of England expanded its swap facility for illiquid assets. HBOS in particular seemed close to failure, owing to a huge rise in loan defaults and a reliance on wholesale funding, until it was announced that a takeover by Lloyds would occur. The effective nationalization of a large part of the UK banking sector ensured that this system would remain solvent, and a number of European countries announced that they would also strengthen the equity base of banks by taking a public share. The Paulson plan was redirected to the same purpose, and in mid October $250 billion was made available to US banks to increase their capital adequacy ratios with the government buying shares in them.

Effects on the real economy were severe. In ensuing months, the real economies of most countries were badly affected, with deep recessions, falling house prices and rising unemployment. At the time of writing there is evidence that the recessions are bottoming out, but prospects for durable recovery, let alone return to previous peak levels of GDP, seem remote. One particular concern is that there will be more defaults on the heavy mortgage debt that households have incurred. Even if they do not default (for example due to unemployment) their consumption cannot grow at the rates seen in the past few years, given the burden of interest payments and the lack of availability of loans to “extract equity”.

Another concern relates to the enormous volume of public debt being incurred, not only due to the bank rescues but because a sharp recession reduces tax revenue while increasing need for benefit payments, and governments have also carried out discretionary fiscal loosening. Meanwhile, emerging markets, that had hitherto been relatively unscathed, began to be badly affected (IMF 2008) as trade finance and external finance became much harder to obtain. Policy issues now facing the authorities are how long to maintain loose fiscal and monetary policies, and how to tighten bank regulation so the crisis does not recur (see FSA (2009) for example).

2 Comparing the view of mankind from economics and theology

Having outlined in some detail the events of the crisis, we now examine key issues raised by the crisis in the light of economics and theology. We contend that since economics is the ruling paradigm in society and government, it is inappropriate to solely focus on a theological critique. For example, Hobsbawm (1994) states “economics, though subject to the requirements of logic and consistency, has flourished as a form of theology – probably in the Western world, the most influential branch of secular theology”, while Nelson (1991) states that it “offers a set of principles and understandings that give meaning to, define a purpose for and significantly frame the perception of human existence”. Britton and Sedgwick (2003) point out that there is “not much in economics that can be demonstrated beyond reasonable doubt” even though it is an “impressive body of reasoning, extremely influential in contemporary culture, providing one type of insight into the way modern society works”.

Certainly, economics’ influence extends well beyond academia, because it is widely taught to those active in business and management, and also pervades political debates on economic policy. There are even “missionaries” taking the ideas of free market economics to the developing world. Indeed, Collier (1992) attacks “economism”, the tendency to give primacy to economics over other sources of meaning and value. Accordingly, we set out in the next section a basic understanding of the nature of economic thinking, in relation to humanity per se. For a deeper analysis see Hay (1989) and Britton and Sedgwick (2003). Note that we focus on the principal approach to economics known as the "neo-classical" paradigm.

2.1 Economics – today's ruling paradigm

Economics, like other social sciences, differs from the physical sciences in that the unit of observation is the behaviour of the human being. Hence, as noted by Hay (1989) economists do not merely analyse using detached observation (thus deducing cause and effect) but can use introspection (how would I act in these circumstances?) Weighing up alternatives and making a decision is core (I bought this house because prices are rising; I borrowed a great deal because interest rates are low at present). Accordingly, human actions are understood in terms of reasons, preferences and motives and not simply cause and effect. Indeed, often the methodology is not one of scientific experiment to test a hypothesis but assumptions about behaviour and motivation which are not subject to empirical test. We can contrast the positive economic domain (analysis of what does happen) with the normative (what should happen) dealing with positive first. As noted by Britton and Sedgwick (2003), economics is inevitably normative as well as positive because values cannot be readily separated from facts when human nature is the subject matter.

Positive economics typically uses a simplified concept of mankind often called "rational economic man". It is assumed to be quite general across the human race and not culture specific. At a basic level, individuals operate in an environment of scarcity and competition. They are assumed to have preferences over the set of consequences of all their possible actions, be they consumption, labour supply or investment. These preferences are rational in three senses. First, they are "complete" in that for all pairs of choices, the person either prefers one or is indifferent between them. And preferences are "transitive", if we prefer A to B and B to C, we prefer A to C also. Individuals (on average) act rationally in accordance with these preferences, in the sense that given a set of available actions, there is no action available to them superior in consequences to the action they have chosen. Often there is added the idea of "non satiation", so more of a good is always preferred to less. As noted by Britton and Sedgwick (2003) the veracity of these forms of rationality are articles of faith, not logically necessary, self evident or obvious. A variant on the theory of preference is "revealed preference" theory which applies this approach to analysis of actual choices between a set of goods, services, assets, employment, use of time, etc. thus avoiding the need to consider what people's decision processes are (albeit usually assuming they are as described above).

The basis of this approach is the utilitarianism of Bentham and Mill[8] who saw experiences as generating pleasure or pain, desirable or undesirable feelings. So, individuals rationally seek to increase desirable feelings and reduce undesirable ones. As noted by Hay (1989), the goal of a utilitarian is to "promote his own interests, preserve his own life, increase his own pleasures and diminish his pains". Then, the calculation could be simply summarised as a single measure of utility which human beings seek rationally to maximise. Nineteenth century economists such as Edgeworth took this approach to mean that individuals are motivated "only by self interest". The main development since then has been a focus on ordering of preferences rather than absolute levels of utility that could be measured by an outside observer. Corollaries are that only consequences count, not the actions themselves; actions are evaluated for their effects without reference to rules of conduct.

[8] See for example Mill (1836).

Meanwhile, everything except self-interest is typically excluded as a motive in economic behaviour. This is not a necessary feature of the subject. Economists could include other motives besides self-interest in analysing human behaviour in terms of "utility". For example, others' consumption as well as one's own could enter preferences. But they typically do not do so except in certain specialised articles. Economists assume pursuit of self-interest is a "useful simplification" which is broadly correct on average. This has consequences which go wider than economic theory, and into politics and wider society. Maximising one's own consumption less disutility of labour, or as an entrepreneur maximising profits, is quite widely seen as the "only rational approach" to life, particularly in countries where religious convictions have faded and since the Reagan/Thatcher years of deregulation of the 1980s.

By viewing individuals as individualistically selfish in their behaviour, economics tends to rule out intrinsic value to community life, beyond the benefit the individual may obtain from it. Relationships, beyond those pursued for self-interested motives, also have little role to play. Economics rules out ethical goals such as poverty relief beyond their impact on one's own well-being. By assuming individual self-interest, economics could be seen as recognising the ubiquity of fallen behaviour. Indeed, some economists such as Becker have argued from evolutionary biology that evolution will eliminate those genetic characteristics inconsistent with self interest and survival. Or equally, a firm that does not maximise profits will be eliminated from the market by competitors.

Since the individual is usually assumed to be selfish rather than altruistic, charitable giving is hard for economics to understand. Whereas the possibility of perfect altruism is conceded (i.e. the individual cares only about the benefit to the recipient), economists feel there is more evidence for explanations highlighting a "warm glow" (i.e. some additional inner satisfaction from giving) or "prestige" (i.e. valuing recognition by others for giving, as Matthew 6:2). The test of the second and third is that private giving does not decline one-for-one with government giving to the same recipient – which is empirically verified.

Naturally, there have been a number of criticisms of the "rational economic man" paradigm from a "common sense" point of view, even abstracting from a theological critique. First, following rules of conduct may have value in itself, both to the individual and wider society, implying a value to actions and not just consequences. Moral norms that have a major effect on human behaviour should not be omitted or just included as "tastes". Second, a pure hedonist might make no provision for the future, only the present, and this is thought to be unrealistic. Third, the "rational economic man" paradigm omits the concept of "commitment", where people choose to act in a certain way regardless of the effect on their utility. Examples are agreeing to provision of goods to the community that one benefits little from, repaying a debt, or continuing in a marriage. Fourth, it is evident that community links are valued by humanity. We note, however, that these objections have weakened since the 1960s as rules and commitment have been seen as obstructions to self-fulfilment and hedonism has been celebrated. Community links have weakened also. The paradigm, on this basis, may be coming closer to the truth.

A more technical objection is that individuals do not have the information to make rational decisions in the way described. Advertising influences individuals well beyond provision of information – it shapes preferences themselves and generates peer group pressure. Furthermore, it can be argued that people might try to get to a satisfactory level of utility, perhaps repeating or copying earlier decisions rather than maximising, not least due to lack of complete information or desire to keep options open. But economists typically continue to use the standard full-information rational paradigm.

The **normative approach** in economics traces the consequences of free choice by rational individuals for society. It does not typically make prescriptions about individual ethics, but gives advice to policy makers on public choices.

It is also pervaded by utilitarianism, in that it typically states that a social situation is superior if individual well-being is greater, and the latter is something the individual seeks to maximise. Then a traditional approach is to say that the best choice for society is one that maximises the sum of such happiness. In principle, such well being or happiness is not just material pleasure or pain but also could include non material or spiritual elements in life. But this is usually not taken to be the case. Again, there can be included preferences for equality in society so that individuals with less well-being have a greater weight. However, such additive or cardinal utility is widely criticised, and instead economists prefer to consider relative utility. The key concept is Pareto Optimality, stating that social welfare is increased if someone could be made better off without another being worse off. This only requires a ranking of individual outcomes.

Using this tool, as discussed in Davis (2007), economics assumes that the pursuit of self-interest will lead to an optimal outcome for all (the "competitive equilibrium") across the economy as a whole. This is achieved by everyone acting in a self interested manner, as noted by Adam Smith (1828) "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." The process of reaching an optimum via markets is often called the operation of Adam Smith's "invisible hand". In more detail, the standard "neo-classical"[9] economic paradigm is the "competitive equilibrium". It starts with an initial set of asset-endowments for individuals (talents, skills, capital), who pursue their own self interest. It then states that financial, labour and product markets will operate to set prices so that all supplies and demands balance, and no one could be made better off without another being worse off ("Pareto optimality"). This will be the case if certain conditions are fulfilled, notably, that there are no monopolistic producers or traders who can control prices independently of the market.

These assumptions and the "optimal" outcome they generate naturally lead to laissez-faire policies, which oppose any government intervention to redistribute wealth, the so-called minimal state that just ensures the rule of law and defence, and possibly infrastructure. Individuals following this line of argument tend to see a more active state as a threat to freedom as well as to prosperity. They may argue that the poor will benefit from "trickle down" effects of growth without any positive measures to help them. They are also suspicious of regulation of markets, other than that against monopolies, urging that the system is self correcting.

The most laissez-faire economists view individual rights and justice with suspicion, as they may violate the competitive equilibrium and are typically omitted from calculations of utility maximisation. But rights and justice come closer to the "common sense" view that a person has dignity and individual value, and should be treated as a subject and not an object. For example, a social contract may specify that governments should ensure all citizens have sufficient to cover their basic needs (nutrition, shelter, sanitation, health care), basic education, and also political liberty which in turn empowers the poor to participate in wealth creation in a self-directed manner.

[9] This is the dominant approach for both academics and economic policymakers; there exist alternatives such as Marxian economics that talks for example of poverty as arising from the exploitative alienation of workers from the product of their labour; see Griffin and Gurley (1985).

Rawls for example talks about justice as requiring on the one hand political and civil liberty, but on the other also that social and economic inequalities should be to the greatest benefit of the most disadvantaged. This is a basis for mandating redistribution or welfare state policies as well as equal opportunities in education and health. The implication is that we may need to import non-utilitarian political theory into economics to justify governments correcting the selfish bias of individual choices and amending the "initial endowment" in the competitive equilibrium, if it leaves some citizens vulnerable. Such an approach typically also suggests that regulations such as those outlined in Appendix 2 should be undertaken to correct for a range of "market failures".

Economics can still give useful policy advice ("a useful handmaiden but a bad master"). For example, welfare economics tells us that the revised endowment after redistribution could still generate a Pareto-Optimal competitive equilibrium. It also has an awareness of "market failures", which lead to difficulties for the market system. The first of these is externality, where the action of one agent has an unpriced influence on another's welfare. A run on one bank may for example lead to runs on others. The second is problems due to information asymmetry such as moral hazard where a set of market prices (or a policy) stimulate individuals to act differently from their underlying needs and preferences to the detriment of the seller or policy maker. The third is monopoly which as noted above may render a competitive equilibrium impossible to achieve.

Overall, it can be suggested that economics and its view of humanity offers a good diagnostic analysis of issues, and application of it to the running of economies has provided major benefits in terms of economic development. However, it is weak normatively (unless we import "rights" from political theory) – there is a clear focus on efficiency and not morality (Griffiths 1984). Economics is often presented (for example by Friedman, Hayek and Becker) in a manner that rejects transcendent and absolute moral standards (Griffiths 2001). Indeed, there is no awareness of sin or human evil in economics; as noted, no prescriptions are made for individual behaviour, although economists acknowledge that virtues like trustworthiness and honesty are vital for the smooth running of the economy. Irresponsibility and immoral behaviour can only be condemned by economics if they are contrary to individual utility maximisation. Individualism as is assumed in economics can naturally be said to promote pride and self sufficiency. This is the opposite of the Christian view of humanity as appropriately based on relationship with God, even in its economic behaviour. We now turn to a summary of relevant aspects.

2.2 A biblical view of humankind

Like economics, theology looks both at how things are (positive) and how things ought to be (normative). Looking at biblical views of mankind, in a **positive sense**, humanity is seen as being made in the image of God. Mankind has a mandate to order and care for creation (the "stewardship mandate", Genesis 2:15-20) and obtain from it their food and shelter. Work is the way in which people carry out their stewardship and expresses themselves as persons; craftsmen such as Bezalel (Exodus 31) are celebrated in the Bible. Furthermore, like God, humans are personal beings, able to make choices[10], and also able to come into relationship with other living beings.

But mankind is also fallen, having disobeyed God in Eden. As such, choices and actions can be determined by self-interest, relationships can be spoilt by power and fear, humanity may exploit rather than caring for nature, and work can become toil (the "curse of Eden", Genesis

[10] Griffiths (1980) notes that "the creator is revealed to us as a rational, moral, feeling person capable of making choices, and God's image in man implies that he is [the same]".

3:14-19). People are widely shown in the Bible to "do as they see fit" (Judges 21:25), generally following their own selfish interests.

Accordingly, there is a mixture in what we observe of human behaviour, also in the economic field, of the divine and the fallen. The economic analysis described above is perhaps an approximation to fallen, self-interested behaviour. Work is seen as a disutility, actions are directed to maximise personal utility on a selfish basis, while mediation of transactions via impersonal markets may allow us to ignore power relations between individuals. But the economic approach can still be criticised for ignoring the reality of power relations and negative spiritual influences that theology acknowledges. Furthermore, there are also aspects of the divine in human behaviour still, such as altruism. People can be seen as ends valued by God for themselves and not just as means (to productive work, to utility generation) as is often the case in the worldview of economics. Work is widely valued in itself or as a part of human dignity not "disutility". Relationships may be affected by commitment and not just personal utility. The degree to which the fallen and divine relate will depend on individuals but also on culture.

Theology, unlike economics, takes note of structural aspects that may overlay individual behaviour. Structural sin is a particular focus of "liberation theologians",[11] who link it to violation of human rights, disempowerment of the poor and also economic injustice, "favouring greed [of the rich] at the expense of the life and dignity [of the poor]",[12] and which may be manifest in the market economy itself. The "sin of the world" (John 1:29) makes it hard for those who benefit to discern systemic evil and its sources. Liberation theology argues that the New Testament encourages Christians to oppose 'structural injustice' in politics and economics leading to poverty, which in turn reflects the influence of the devil on 'the world' (Ephesians 2:1-2). They argue that owing to imbalance of power and influence, markets themselves may be vulnerable to binding and oppressing the poor, a situation from which they need to be redeemed. On the other hand it is important to add that the Bible does not assert that markets per se are a negative thing. Throughout the Bible individuals specialise and buy and sell products for their wider needs as in the modern economy, be it by barter or cash transactions, as well as in subsistence.

The view of man from theology is more rounded and complete than that of economics. As noted, community life is crucial and not just individual fulfilment or the impersonality of transactions in a market. Indeed, Israel – and later Jesus himself - are seen as representative of humanity and able to stand before God on behalf of the rest of humanity, a group identification that goes well beyond the individualism of economics. Christians are called to be together in community as the church. Humanity is essentially relational as in Adam being said to be incomplete without Eve, as well as needing a relation with God himself. Indeed, since God is relational in the Trinity, humanity in his image is relational also. Accordingly, emotions such as love and hatred which are interpersonal are of relevance to behaviour. As noted by Britton and Sedgwick (2003) "economics cannot comprehend love because of its prior commitment to rational calculation, but also because of its prior commitment to individualism". Trust is not feasible in a pure economics environment, a paradox since trust between people - which Christians would argue could only arise between individuals trusting a loving God - is essential to the efficient working of markets.

Although wealth is celebrated at times in the Bible as indicating God's blessing and coming from the benevolent creator, it is the relationship with God that a Christian sees as central to well-being. Indeed, Jesus states firmly that we are blessed if we are poor, or identify with the

[11] White and Tiongco (1997).
[12] Fitzgerald, (1999).

poor. Riches can blind us to the needs of others and the need for a relationship with God. And Paul sees church at its best as a loving fellowship, willing to share with the needy among them, being generous to imitate the overwhelming generosity of God himself (2 Corinthians 8:9). Wealth is a responsibility, something we must steward for the benefit of others, even as mankind is called to steward creation itself. A corollary is seeing work as a form of service to bless others. And beyond that, well-being incorporates the promise of eternal life with Christ in heaven. All these are not to be gained by selfishly maximising but by showing love to all. In other words the core of Christianity is not about "doing good" which could be integrated in economics via a suitable utility function, it is to do with a relationship with God himself.

Consequently, the most important choices are those of salvation itself, entailing repentance from sins, going well beyond simple choice of consumption and labour supply. Openness to God's love and fulfilling the destiny he has given is the essence of humanity. Fulfilment is found in serving God, not going our own way. Rationality is placed in a wider context of spiritual reality where rational choice is not about weighing preferences but attempting to embody a particular style of life, following Jesus. The choice to follow him is true freedom in relationship, as for the Trinity, contrary to the popular view that becoming Christian involves a sacrifice of freedom.

Normatively, the Bible suggests an ethical focus to the theological view of mankind with justice as a core. There is less fear of value judgements and "blaming" than for economics. Individual behaviour as well as social situations are subject to critique. For, being made in the image of God, man has free choice but also he is responsible morally for the choices he makes. The Bible notes the risk that money becomes an idol, and the economic system a form of structural injustice – although theology also highlights the need for private property under God to protect against poverty. In the light of Christ's sacrifice on the cross, Christians are called to be "redeemers of fallen creation" in advance of the New Heaven and New Earth (Romans 8:18-25). This implies being stewards in the way God intended – so it is essential for Christians to focus on current economic issues.

A Christian critique of the normative approach of economics could include, first, the idea of "the good" (Hay 1989). A Christian approach would go much wider than the economic view of maximising personal satisfaction in pursuit of individual preferences, usually in terms of hedonism. Jesus taught us to love God and our neighbour, going much wider than the individual and his family. Second, a Christian would care about actions and not merely consequences. God's judgement is in terms of what he requires of mankind in daily life, such as righteous motives (not purely for self aggrandisement at the expense of others), righteous actions (e.g. not lying), maintenance of social institutions that God has ordained (such as marriage and the sanctity of human life), and sensitivity to justice (as in global poverty). So, concern by the economist for efficiency, growth and (in some cases) equality, is replaced, or at least supplemented, by a concern for stewardship, useful work, protection of the vulnerable and the preservation of marriage and family life.

Furthermore, a Christian would see a benefit to community, going beyond simple aggregation of individuals. Rather, it can be seen as good in itself both for the individual concerned as well as in terms of the duty to help the neighbour. So goals of the individual should be related to those of the community and not be solely individualistic. Again, this is based not only on the way God designed humanity (Genesis 2:18) but also the fact that God himself is a relational being in the context of the Trinity.

The view taken of the state differs. As noted, economists can see the state as a threat to economic outcomes as laissez faire would maintain, or as needing only a benevolent dictator imposing the social optimum on a reluctant society. A Christian view is that the state is ordained by God to keep the peace and administer justice, preventing evil that would arise from anarchy. A realistic view is taken of the fall, in other words. So there is a duty to obey the state, but equally rulers are seen as under God and hence responsible to him. Christians would stand alongside economists in opposing a dictatorial state threatening freedom. And it is notable that regimes that seek to suppress markets have often been those that deny human rights, including free exercise of religious faith (Griffiths 2001).

To summarise this section, we note the suggestions by Hay (1989) for extensions of the economic "good" beyond consumption, leisure and economic efficiency if a Christian viewpoint is adopted. These focus on responsibilities as well as rights:

- Man must use the resources of creation to provide for himself but not destroy the created order (as in the stewardship mandate of Genesis 1:26-30).
- Each person has a calling to exercise stewardship of talents and resources (as in the parable of the talents, Luke 19:11-27)
- Stewardship implies a responsibility to determine the disposition of resources. Each person is accountable to God for his stewardship (as in Leviticus 25, the land ultimately belongs to God).
- Man has a right and an obligation to work (as in Eden where man is set to work it and take care of it, Genesis 2:15)
- Work is a means of exercising stewardship. In work, man should have access to and control over resources (as in provisions in the Jubilee for land to always return to the family, Leviticus 25)
- Work is a social activity in which men cooperate as stewards of their individual talents and as joint stewards of resources (as in the church as a body to which all contribute, 1 Corinthians 12)
- Each person has a right to share in God's provision for mankind, for basic needs of food, clothing and shelter, and these should be provided by productive work (as in provision for the poor to share in the harvest, Deuteronomy 24:19-22)
- Personal stewardship of resources does not imply the right to consume the entire product of those resources. The rich have an obligation to help the poor who cannot provide for themselves by work (as in the rich man and Lazarus, Luke 16:19-31).

Considering these sections together, we do not deny that economics and the market based economy and financial system has provided huge benefits in terms of wealth generation that have assisted the whole of society. But there remains an unease with the lack of moral foundations of economics at its most basic level, as taught to millions. This needs to be supplemented, at the very least, by values from humanistic political theory, but better by the teaching of the Christian church as outlined above. With this comparison and contrast as background, we now turn to an examination of the teachings of economics and theology relevant to three key elements of the financial crisis, the behaviour of bankers, the rise in household debt, and the explosion of public debt. By confronting in each case the distinctive approaches, we seek to develop a distinctive view of personal behaviour and policy recommendations.

3 The financial sector – incentives to underestimate risks

3.1 The issue from an economics perspective

Given the central role of banks and bankers in the crisis as outlined in Section 1 above, we focus first on issues in banking that could have led to the catastrophic underestimation of risks that preceded the crisis. The economic role of financial institutions such as banks in the

modern economy is a crucial one. It can be summarised in six functions of the financial system (Merton and Bodie 1995). These are:
(1) The provision of means for clearing and settling payments to facilitate exchange of goods, services and assets. An example is cheque clearing and other forms of payment for goods and services that banks provide.
(2) The provision of a mechanism for pooling of funds from individual households so as to facilitate large-scale indivisible undertakings, and the subdivision of shares in enterprises to facilitate diversification. So, for example, bank deposits are pooled to make loans to mortgage holders, while banks are enterprises issuing shares for growth of their business.
(3) The provision of means to transfer economic resources over time, across geographic regions, countries or industries. Bank loans again enable short term savings to be transformed into long term lending that can take place cross-border as well as to different places within a country.
(4) The provision of means to manage uncertainty and control risk. Banks seek to carry out "due diligence" credit analysis in lending to ensure that the borrower has capacity to repay loans.
(5) Providing price information, thus helping to co-ordinate decentralised decision making in various sectors of the economy. This is the function of the stock and bond markets that set prices for financial assets, but in which banks are highly active.
(6) Providing means to deal with incentive problems when one party to a financial transaction has information the other does not, or when one is an agent of the other, and when control and enforcement of contracts is costly. So banks devise contracts that seek to provide incentives for loans to be repaid, overcoming the difficulties that economists call adverse selection (such as the tendency for those asking for finance from a bank to be of low credit quality if it charges high interest rates – since they don't intend to repay) and moral hazard (such as the tendency of borrowers who are not monitored properly by the bank to misuse the money they are lent).

A first remark is that it is self-evident that widespread bank failure, threatening provision of these functions, is extremely damaging to the economy. This explains both the amplitude of the downturn and also the efforts by governments to support banks, as discussed in Section 1 above.

A second remark is that the performance of these functions requires integrity and prudence on the part of bankers in performing their functions – as was lacking in recent years. Notably, they need to avoid the temptation to provide credit too readily to individuals, firms and governments in a way that entails excessive risk to their institution. Once underpriced loans had been made, banks are vulnerable to the consequences of default, directly and via securitised claims, when borrowers' financial situation worsens. Equally they need to ensure their institutions had access to reliable sources of liquidity, to avoid the risk of "runs".[13] And furthermore, they need to ensure their institution had adequate capital to cover expected losses (see Appendix 2). Failure to carry out such diligence – as was the case in the crisis as described in Section 1 - threatens the economy as a whole and not just the bank concerned, if it is sufficiently widespread.

In this context, a dangerous pattern may have been created by a combination of the bonus culture of banks and the "safety net" provided by the government. Bonus schemes in banks, which may account for as much as 50% of remuneration, often reward the short–term performance of an individual trader or lending officer and this can lead them to focus on raising short–term returns, with the potential of risking greater losses in the future. Means of

[13] See also the discussion in Appendix 2.

obtaining high returns would include, first, lending large volumes at high risk, say to sub prime borrowers or buy-to-let investors (with high interest rates and also fees attached) without concern for long term risk. Second, it would include purchase of large volumes of high yielding securities (such as sub prime ABS) without taking a view of their long-term valuation.

Besides individual bank employees and their bonuses, incentives related to bonuses and also CEO stock options and share ownership may also have underlay strategic errors by managers. These include seeking growth of the institution beyond what was feasible with retail deposits via use of risky wholesale deposits; and allowing capital and liquid asset cover to be reduced and thus boosting profitability at a cost of enhanced risk of insolvency (see Appendix 2). It also entailed aggressive takeovers of banks at the peak of the boom, which left some of the buying institutions (such as RBS and Lehmans) highly vulnerable to failure.

The background to this, notably for the strategic decisions of CEOs, was knowledge that the authorities simply could not let major banks fail, and would have to support them initially via lender of last resort liquidity support and later via recapitalisation and guarantees at taxpayers' expense. The bankers, in effect, had an incentive to underprice risk, partly because of asymmetric payoffs - the profits would accrue in bonuses and option revaluation, the losses in the end to the taxpayers if the bank is "too big to fail" so is supported by the central bank and government. This is another form of moral hazard, a guarantee which generates behaviour (by bankers) adverse to the provider of that guarantee (the state).

Note that these incentives are not so favourable for shareholders, who may lose out in a government "rescue". Indeed, pension funds of individual employees have lost out greatly owing to the devaluation of banking shares. The shareholder's voice in a limited liability company such as a bank is not a strong one, even for major institutional investors, except in the case of major failures of "corporate governance" (Davis and Steil 2001). This is partly due to lack of sufficiently detailed information on the firm, as well as lack of sanctions apart from selling to a takeover raider. Shareholders were accordingly unable to restrain the rush for profitability by taking high levels of risk that banks undertook in the period up to 2007.

Such an explanation of banker's behaviour as that set out above suggests direct culpability, with actions taken in full knowledge of the related risks, which is consistent with the economic model of man as pursuing self-interest. There may also be indirect channels. Notably, there may have been "disaster myopia", that lenders forgot there could be bad times again. As in past crises, people start to believe "it's different this time" (e.g. due to the fact claims were securitised) and forget the lessons of the past that a credit and asset price boom often ends in a financial crisis (see Appendix 1). This pattern of individual and institutional forgetfulness may be provoked by the same asymmetry of outcomes for employees/managers and the state/shareholders, making bankers focus on the short term only. But it is clearly contrary to the mainstream economic assumption of "rationality".

Whereas historically banks have often been vulnerable to patterns of losses from loans held on the balance sheet (e.g. in the 1973 crisis of the UK secondary banks, the Latin American debt crisis of 1982, and the Japanese, Swedish and Finnish banking crises of 1991), it can be argued that the securitised products such as ABS that abounded in the run up to the crisis were particularly vulnerable to abuse in terms of underplaying of risk and/or disaster myopia. As innovations, their behaviour under stress was not yet known - like a new drug whose full range of side effects has not been tested. Also there are a wide range of "information gaps" where those taking decisions did not bear the consequences of poor outcomes, while those who did suffer the consequences did not understand the risk, due to complexity and poor information. For example, those making subprime loans in the US would sell them as bonds, so passing the risk to others. And third, the "rating agencies" who are supposed to make independent assessments of credit risk actually made excessively optimistic assessments of such risk for these instruments, following their own self-interest in generating fees from the issuers.

The situation was worsened by the principal-agent problem which is endemic in banking. The "principal" owns the assets but he gets someone else, his "agent" to look after them. For example, the shareholders of a bank like RBS (the principal) mandate the managers of the bank to be the agent and run the company on their behalf. But the problem is, the agent may easily act in his or her own interest and not that of the owner, if they are not trustworthy, being driven by greed. Sir Fred Goodwin of RBS made disastrous overpriced takeovers which led his bank to ruin. Money managers like Madoff and Stanford defrauded people directly who had entrusted money to them.

There are three ways in economics to deal with principal agent problems, which is in effect the way the subject deals with business ethics. It is assumed that a self-interested person will behave ethically if there are sufficient incentives, only. The first resolution is to draw up a complete contract that specifies the agent's behaviour in every circumstance, or at least to align perfectly the interests of the agent and principal. But this is generally seen as impossible, as witness the difficulty banks have had with annual bonuses. While they are assumed to give rise to appropriate incentives to maximise profits, they actually led to risk-taking that wrecked some institutions.

A second is to rely on reputation. If the agent sees his reputation for honesty as an asset, he will be trustworthy because it's in his own interests. People can after all be fired, and institutions can fail or be taken over. Spoil your reputation once, and no one will trust you again – at least for a few years. But this is more effective for a single individual or institution that behaves differently from the rest. In the credit boom, bankers were comforted by the fact that all their counterparts were acting in the same way, and hence except for the most egregious cases the risk to reputation from risk taking was small.

And the third is ongoing relationships. In economics, people are supposed to act in a trustworthy manner in an ongoing relationship, such as an employment relationship or a link with a client, so as to keep the benefits of that relationship, that would otherwise be spoilt. But economics sees mankind as totally selfish so the relationship will be spoilt if the person considers it to be in their interest. We noted earlier that the idea of commitment (loyalty, love) is absent from the bulk of economic analysis. Furthermore, the form of banking that developed in the 2000s, with loans being securitised and sold piecewise to investors round the world, is inimical to the form of banking relationships typical of traditional banking, where the manager would know his own clients and deal with them on a regular basis. So again the sanction was weak.

Since protection from deposit insurance and the lender of last resort (the government "safety net") offer banks an incentive to take risks, then economics stresses a need for prudential regulation as a form of protection for the "safety net" and the government that provides it, as well as for depositors, against banks' risk taking (see Appendix 2).[14] Banks must be obliged

[14] There are various regulations on loans (such as on "large exposures") to prevent the bank becoming insufficiently diversified and thus increasing the risk of insolvency. Prudential regulation also focuses on management and earnings as important to risk management and ability to grow capital, respectively. Overarching these may be "structural regulations" that limit competition between banks and hence limit the degree of risk on the asset side (since competition typically induces banks to seek higher returns at higher risk).

to hold sufficient capital, while liquidity should also be held in spite of the bankers' incentives to minimise it. There might also be supervision of the incentive schemes in banks per se. But in fact it would appear that the authorities had allowed liquidity regulation to be excessively lax; the bonus culture was rarely investigated and capital adequacy was not maintained on a risk-adjusted basis. The regulators, too, were subject to "disaster myopia" (Davis 2009). Hence the calls at present for much tighter regulation, notably of the bonus culture and of banks' capital (FSA 2009).

To sum up, while economics offers an understanding on the importance of banks and the incentives and motivations for bankers' behaviour, there remain puzzles from the point of view of "rational economic man" paradigm. For example, why is there the irrationality implicit in "disaster myopia", which is a huge departure from the paradigms discussed in Section 2? Why did firms invest massively in securities whose properties they did not understand? Why were takeovers undertaken at excessive prices, which threatened the bidding firm's solvency? Equally, economics is silent on the issues of prudence, trust and honesty which are essential to the functioning of financial markets in the long term. We now turn to a Christian view to see what additional insights are available.

3.2 The issue from a theological perspective

While the sophistication of the modern financial system is absent from scripture, the underlying issues are not, and notably the issue of business ethics. It arises already in the Fall of Genesis, as proposed by Higginson (1993).

One aspect was that of hubris, as set out in Genesis 3:5. Adam and Eve were tempted by the serpent to "be like God" knowing good from evil. There can be corruption by power and success and arrogant behaviour, which can entail disaster myopia with risk taking at the individual level (such as excessive purchase of risky securities) or the firm strategic level (such as inappropriate takeovers). Pride itself leads individuals to overlook risks, as well as seeking financial gain. Similarly, the account of Babel in Genesis 11:4 describes individuals seeking to be like God, building empires for their own glory like the bank conglomerates built during the boom. James 4:13-17 shows individuals boasting about the future profits they would make. Desire to make a name for themselves and the underlying insecurity again may underlie the dominance of banks by empire builders such as Dick Fuld of Lehmans, who overreached themselves and brought down their institutions. They reportedly refused to hear news contrary to their own views. We saw above that desire to protect reputation is one protection against principal-agent problems, but Scripture shows its limitations.

Second, there is a breakdown of the relationship of cooperation between human beings that came with the fall. The specific example is that of men and women, where God says to Eve in Genesis 3:16 "your desire will be for your husband, and he will rule over you." Corruption in human relationships again is relevant to banking ethics, where competition rather than cooperation within firms helped to build up risk, traders competing with one another to maximise their profits and hence their bonuses. Equally, leadership in firms that should be benign and for the benefit of all can become dictatorial as at Lehmans, in the same way that marital relationships can sour. We saw above that ongoing relationships is one protection against principal-agent problems, but Scripture again shows its limitations.

Third, there can be the blame game as in Genesis 3:12-3, where Adam and Eve accused one another and the serpent of being the guilty party – and Adam implicitly also blames God ("the woman you gave me"). People seek to avoid responsibility because of its effect on future reputation and employment, although that is dishonest. And when no one is willing to take responsibility for a firm's actions, then the outcome may well be adverse, as many firms found out in the banking crisis.

There is a biblical issue of quality of work, which applies to bankers, and may also underlie their risky actions. With the fall there is a curse on work, (Genesis 3:17-19), while Ecclesiastes 2:22-23 says "What does a man get for all the toil and anxious striving with which he labours under the sun? All his days his work is pain and grief; even at night his mind does not rest". This could certainly apply to overstressed City bankers and may help explain why they were willing to put their jobs at risk for pecuniary reward, if the work itself was seen as unrewarding. Furthermore the bible is replete with examples of irrational behaviour, such as the Israelites worshipping gods who are mere blocks of wood (Isaiah 44:12-20) as in "They know nothing, they understand nothing; their eyes are plastered over so they cannot see, and their minds closed so they cannot understand." Hence the irrational behaviour for bankers is hardly a surprise. A more explicit example of myopia is shown in Isaiah 56:12 "Come," each one cries, "let me get wine! Let us drink our fill of beer! And tomorrow will be like today, or even far better."" No precautionary provision for hard times, in other words.

Despite the fall, there remains a Biblical value placed on quality of work, the concept of secular vocation (Green 1988). This is evident, for example, in the skilled work of Bezalel on the tabernacle, which is celebrated in Exodus 31:2-5, and which was accompanied by his being "filled with the Spirit of God". This work was not just for the self, he also taught others (Exodus 35:34). In Proverbs 22:29 the skilled man is praised as serving before kings. Jesus' parable of the talents (Matthew 25:14-30) encourages hard work in the context of the skills God has given us, while Luke 10:7 says workers deserve their wages. This implies it is not wrong Biblically to strive for better salaries and promotion. Indeed, Paul says in Colossians 3:23 we should work with all out heart, as working for the Lord and not for men. Barth (1969) suggests that we are called to be servants of God and our fellow human beings; our work in this light is then sustaining and directing and caring for the world and about the welfare of creation. Griffiths (2001) argues that work generally, and market enterprise more specifically can be seen to have a legitimacy based on the creation mandate, to order creation for mankind's needs.

These texts encourage hard work but the bible also enjoins integrity. Virtues such as honesty (Leviticus 19:11), and putting others' interests before one's own (Philippians 2:4) were absent in many firms in the banking crisis, as shown above. A word often used for hard work in the bible is "diligence" as in Ezra 5:8 which has a deeper meaning in banking – due diligence means assessing correctly all the risks before undertaking a transaction, a virtue sadly lacking in the run up to 2007.

Turning more specifically to biblical material relevant to banking, diversification of portfolios is enjoined by Ecclesiastes 11:1-6, "Cast your bread upon the waters, for after many days you will find it again. Give portions to seven, yes to eight, for you do not know what disaster may come upon the land." It was evident that banks holding sub prime ABS did not diversify sufficiently the underlying liquidity and credit risk. And although banks may have used a variety of wholesale funding sources and instruments, they did not allow sufficiently for a complete collapse of the market. The Bible's warnings about false weights and measures (Proverbs 20:23) can be seen as linked to the inaccurate ratings of the credit rating agencies for the structured products as well as the misleading of clients.

We discuss in Section 4 below the controversy regarding interest and usury, which has implications for banks. Suffice to note here that traditional Christian teaching regarded all lending (except that freely undertaken at zero interest) with suspicion. Calvin said that under the law of love, there could be no objection of loans on reasonable terms between parties with good business reasons to lend and borrow, hence legitimising banking. But the law of love and stewardship that Calvin advocates would not permit many of the exploitative practices undertaken in the boom, notably lending to sub prime borrowers without adequate warning of the risk of homelessness, and the sharp future rises in interest rates once initial low "teaser" interest rates finished.

Jesus' view of the trade of finance is seemingly ambivalent. He was opposed to the intrusion of finance in relationships with God as in the driving out the money changers (Matthew 21:12). But he seems to accept the trade of finance in the injunction in the Parable of the Talents to put money with the bankers (Matthew 25:27). More subtly, it can be argued that the core of Jesus' teaching, the kingdom of heaven is a long term development, coming to fruition gradually like a plant growing (Mark 4:30-33), in contrast to the practices of bankers to focus on short term gain to the detriment of their firms' viability. And the idea of the servant that Jesus adopted as his paradigm (Philippians 2, Matthew 20:28) implies bankers putting the customer's interests first, which was clearly not the case for sellers of "toxic debt". Paul warns that "People who want to get rich fall into temptation and a trap" (1 Timothy 6:9) as many bankers did, namely the temptation to cut corners in prudence, diligence and risk assessment.

On the other hand, Jesus commends advance risk assessment in the case of the building of the tower and the preparation for war (Luke 14). He is not against risk taking as in the parable of the talents, where the risk-averse individual is condemned (Hoare 2006). The question is for what objective the risks are taken – they are appropriate for salvation but not for financial gain.

Some of Jesus' parables are relevant to bankers' behaviour. In the parable of the shrewd manager (Luke 16:1-15) Jesus commends the manager for being alert and generous (albeit with another's money) but highlights that his problem was that he was not trustworthy. Note in this context that being trustworthy goes beyond obeying rules. It implies being honest and prudent, to be relied upon to make an appropriate judgement in the interests of the principal or client in varying situations. Trust is essential for financial markets, the root of the word "credit" being "credere" – trust.

In Jesus' parable, the manager wasn't trustworthy beforehand, for he'd been wasting the rich man's assets, with reckless irresponsibility – just like some did in the financial sector up to 2007. And he wasn't trustworthy during the parable as he gave away the master's assets. That's why Jesus calls him dishonest even as the rich man commends him. And this is clearly relevant to banking ethics in terms of the principal-agent problem of economics as identified in Section 3.1 above. Jesus is saying that our trustworthiness is dependent on love and loyalty, and where they are directed. The manager was loyal only to himself – he showed no loyalty to the rich man and so their relationship was ruptured. Jesus is saying – don't be like him! We can only be loyal to one master. But the manager's behaviour was as predicted by economic theory, where love and loyalty have no role to play.

This introduces a key verse (Luke 16:13) "No servant can serve two masters. Either he will hate the one and love the other, or he will be devoted to the one and despise the other. You cannot serve both God and Money." Or in other words, you cannot serve God if your attitude to money is to see it as a goal in life, an end in itself, ultimately an idol that is worshipped. A similar issue arose for the rich young man who had kept the law but was obsessed with his wealth (Mark 10:17-23). Wealth entices us into self satisfaction, selfishness, greed, and all the human motivations that mainstream economics sadly finds both accurate and predictive. God has no part in these attitudes. With the misuse of money we become only friends with ourselves, a slave trapped in spiritual poverty towards God and others, alone like King Midas amid his gold. If we trust in the "god of money" we will spend our life in greed and fear. We have seen that the crisis was due to greed of bankers and borrowers; but when fear takes over no one lends, as in the crisis itself. It is hard to see greed in ourselves – a crisis is in this sense good as fear is harder to hide from – God challenges us for trusting in the wrong god.

Jesus knew that one could never have a satisfactory life being in love with money. Hence the dissatisfaction of many bankers despite their vast bonuses. Indeed, even for people who are very highly paid, happiness and satisfaction are often absent as Ecclesiastes 5:11 "Whoever loves money never has money enough; whoever loves wealth is never satisfied with his income. This too is meaningless." Instead, Jesus calls for people to love God and neighbour (Matthew 22:37-40), live in community and seek his kingdom – objectives contrary to the basic principles of economics.

In the context of the bonus culture and high remuneration of bankers, Jesus' warnings of the dangers of greed are appropriate,[15] such as in the parable of the rich fool (Luke 12:16-21), and parable of Lazarus and the rich man (Luke 16:19-31). The rich fool, as in the classic economic paradigm, had only his self interest in mind and was also focusing solely on this life and not the life to come in his greed. Meanwhile, the rich man was completely oblivious of the beggar Lazarus outside his gates, in the same way that individuals who operate in impersonal markets can be blind to the individual consequences of their actions (bankruptcy, repossession, lost savings and pensions).

Scripture calls mankind to be trustworthy to God, and we get his trust by being honest with money. God judges us on small things and they can have a huge effect on our destiny (Matthew 16:10) "Whoever can be trusted with very little can also be trusted with much, and whoever is dishonest with very little will also be dishonest with much. So if you have not been trustworthy in handling worldly wealth, who will trust you with true riches?" One mistake that even Christians in banking can make is to compartmentalise lives, to be honest on Sunday but less trustworthy on Monday, perhaps thereby perhaps gaining a good reputation at work as a wheeler dealer. Honesty and integrity before God can be challenged in a commercial environment even for Christians, who can end up thinking God can't see us at all times. Like the agents selling subprime loans to poor people in the US, knowing in their hearts they couldn't repay. They were well rewarded at the time, but their behaviour was not morally acceptable.

The hubris of bankers can also be viewed in the light of Revelation 18, which can be seen as depicting a financial crisis, with the bankers taking the place of the merchants and Babylon being the global financial sector, in which all sought to work and which seemed more powerful and influential than governments. The fall of Babylon affects not only the kings of the world but also "the merchants of the earth grew rich from her excessive luxuries" (Revelation 18:3), implying opulent consumerism as in the recent boom. The merchants "will weep and mourn over her because no one buys their cargoes any more" (Revelation 18:11) as did those dismissed from failing firms such as Lehman Brothers. The idea that "in one hour such great wealth has been brought to ruin!" (Revelation 18:17) is again reminiscent of the abrupt aggravation of the crisis at the failure of Lehmans. The succeeding recession is captured in Revelation 18:22 "no workman of any trade will ever be found in you again"

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[15] "The seven deadly sins of banking include greedy loan growth, gluttony of real estate, lust for high yields, sloth-like risk management, pride of low capital, envy of exotic fees, and anger of regulators," Mike Mayo – CLSA, April 6th 2009 (thanks to Paul Mills for sending this quote).

while the "master of the universe" pride of the top bankers is shown in 18:23 "your merchants were the world's great men. By your magic spell all the nations were led astray."

Higginson (1993) notes three reasons why Babylon (Rome) had to fall, which were exploiting people (with a reference to slaves as one of the "luxury cargoes"); ostentation, with all the goods being luxury ones rather than being of help to the poor, and pride in parallel to the Old Testament texts proclaiming judgement on Tyre and Babylon ("a widow I shall never be"). In a similar manner the financial sector as a whole is vulnerable to the charge of exploiting individuals' lack of information and understanding about risks. It also raises the issue of debts of the third world; wealth and pride of bankers, seen as "masters of the universe" till 2007 have also been noteworthy.

In passages such as this, Biblical faith gives a warning and a challenge to the values of the world that (at least till 2007) seemed to value financial sector employment above other forms of work. Integrity is what the bible calls for, as stated in Proverbs 10:9, "The man of integrity walks securely, but he who takes crooked paths will be found out". This, besides being a general call to integrity in banking, can refer to the way financial crises tend to expose fraud and sharp practices that are missed in the boom but, as for Stanford and Madoff, are exposed by the downturn.

3.3 Confrontation and reconciliation

It is important at the outset to note that we consider banks and modern financial markets essential to the modern economy, and the issue, rather than their abolition, is whether they can be made to work better, and their excesses somehow curbed. We contend that the crisis, following the analysis above, results from individual and structural causes, and both need to be addressed.

We have seen that the response to the banking difficulties has been a call for tightening of regulation. This, together with takeovers and (for individuals) the threat of dismissal are the means which economics envisages to prevent a recurrence of the current financial crisis. Regulation is typically seen in terms of capital adequacy, an appropriate remuneration system, liquidity and internal procedures of banks. A first point is while these elements are essential, forms of regulation may be too technical. They should arguably be complemented by regulation encouraging more basic "values" as benchmarks for behaviour to be measured against. For example, efforts to avoid regulation by financial innovation, so called regulatory arbitrage could be reduced by a form of regulation forbidding actions against their spirit and not merely their letter. Featherby (2009) suggests a series of very appropriate values that have been neglected in finance in recent years, such as service before self, honesty and not conformity, competition and not aggression, reward aligned with risk.

Theology and its realistic view of fallen behaviour nevertheless raises the issue of whether even this is sufficient. Regulation (and firm culture) promoting "values" may end up with pious lists to write on the wall and ignore, or seek to circumvent. In our view a crucial complement are "virtues", which Vincent (2008) defines as "personal capacity for action, the fruit of a series of good actions, a power of progress and perfection". Examples of such virtues are honesty, prudence, courage, justice, trustworthiness, diligence - the internal conviction of what is right behaviour and determination to follow it through. Gregg (2009) suggests that the most important of these is prudence "the perfected ability of individuals possessing right freedom and free will to make morally correct practical decisions" e.g. using experience, data, and judgement in the granting of credit.[16]

Hence the question arises whether bankers can be motivated to follow prudence, integrity and business ethics. How can we instil biblical virtues (see Green 1988)? How can banking structures be developed to encourage good people to do the good they want to do? Firms could be encouraged to reward such virtues financially wherever they are found. Churches can point out that moral behaviour is a sine qua non for the modern economy to function, with all the benefits it provides. Christians in finance can act as examples, especially if they are leaders. For virtue depends on character and character is learnt by example rather than precept. It is notable that the bank Green leads, HSBC, has emerged relatively unscathed from the crisis. It is clear that Christians are not called to leave the financial sector but must become "salt and light" by the virtues they display, in the place where God has called them to his service. The force of example and careful evangelism can pay dividends for the firm. But perhaps fundamental to reestablishment of ethical behaviour may be the resolution of the question of who is the ultimate master, you, the employer or God?

We accept that virtues cannot be relied on alone – some people will always lack virtue and need regulations and values to be measured against. Values are enforceable while virtues are not – so they are needed as a backup. But we contend that a system that neither promotes nor rewards such virtue has the seeds of its own destruction.

From a secular viewpoint, another way to limit losses via disaster myopia is to retain the older bankers with experience of past crises – otherwise the same mistakes tend to be made again. The bible could be quoted in favour of this in terms of the good advice Rehoboam son of Solomon got from his elderly advisors (1 Kings 12:1-24), to reconcile himself with his restless subjects by easing their burden of tax and forced labour. Instead he took his young friends bad advice, to "act tough", and prompted the break-up of the kingdom. A further policy to pursue is to reduce moral hazard from the "safety net" which generates incentives to act imprudently, as discussed in Section 5.3.

It is clear that something has gone badly wrong for banks to in effect create the deepest recession since the 1930s. This raises the question whether banks, which were devised for the good of the community, have become self-seeking and destructive. A biblical analysis could support an enforced decline in the importance and influence of the financial sector. For example, in the words of Archbishop Williams (2008), it is easy to personify the market and capital "as if they were individuals, with purposes and strategies, making choices, deliberating reasonably about how to achieve aims. We lose sight of the fact that they are things that we make. They are sets of practices, habits, agreements which have arisen through a mixture of choice and chance." And so "we expect an abstraction called 'the market' to produce the common good or to regulate its potential excesses by a sort of natural innate prudence, like a physical organism or ecosystem. We appeal to 'business' to acquire public responsibility and moral vision." Indeed, this is what the Bible calls idolatry, attributing agency to something we have made ourselves – and hence there is a need for discernment to avoid the risk of structural evil that such abstraction can lead us to. It can lead to foolish and destructive errors about the self-stabilising nature of the economy or financial system, for example.[17] Such idolatry is also

[16] Gregg (2009) goes on to see the parts of prudence as "understanding of first principles (e.g., 'don't steal'), open-mindedness, humility, caution, the willingness to research alternative possibilities, foresight, shrewdness, and the capacity to form an accurate sense of the reality of situations".

[17] Such beliefs, common among economists, are in fact contrary to the teachings of the greatest economists of the past, such as Keynes (1936), who said "Speculation may do no harm as bubbles on a steady stream of enterprise. The position is serious when enterprise becomes a bubble on the whirlpool of speculation. When the

a way for individuals to seek to avoid responsibility by blaming the system or the institution when there were alternative choices that the individual could have made.

The size of the financial sector could also be questioned. We have noted that Calvin suggested that banking transactions between equal parties were unexceptionable, under Jesus' law of love that supersedes Old Testament rules. In general we can agree with Calvin that much lending is beneficial to society. If all transactions were equity-based then there would be a collapse in economic activity. But there could remain questions on the value added by banking and finance (is it all beneficial or partly "parasitic" on the real economy?) For example there could be questions about the value of the myriad of derivative transactions, some of which may be for hedging but for many are purely speculative, such as credit defaults swaps on structured products. It is intriguing that the head of the FSA, Lord Turner, has raised the issue of a transactions tax on financial trading that would reduce the scope of such speculation, and would likely reduce the overall size of the financial sector. Others have argued to break up the monopoly power of large banks, which also threatens financial stability.

Calvin might well agree with such policies, quite apart from condemning as contrary to the "law of love" the more predatory lending to sub prime borrowers, many of whom have lost their houses due to repossession. Indeed, the impersonality of the market, and especially when structured products break the lender/borrower link suggests a need to make finance again more a question of personal relationships – in line with scripture. Moral hazard is reduced in close relationships, as in the household of biblical times. After the crisis of the early 1990s, banks in Sweden were held to "go wrong when they stopped lending only to those they could see from the church tower". The downside is lack of diversification. To ensure a level playing field there is also a need for enhancing the understanding of financial products by individuals, which may require regulation of complexity.

4 The household sector – private debt

4.1 The issue from an economics perspective

Although we highlight in Section 1 and Appendix 1 that there are common features linking this crisis to those of the past, the importance of personal sector debt has been an outstanding feature which was less marked in crises of the past. This, and the social issues raised by personal debt, make it essential to assess this topic in detail.

It is self-evident that although bankers bear some of the responsibility for the crisis, the household sector was not obliged to take on massive debt burdens. In other words, they – we - were complicit in the process of overlending, indeed celebrating the house price and consumer boom. Hence, we now go on to analyse the financial behaviour of households in countries such as the UK. It is noteworthy in this context that 1/3 of EU consumer debt is in the UK. Every individual bears on average £1000 in consumer debt and £21000 in consumer plus mortgage debt, far above the EU average in each case. There seems to be a difference in behaviour more widely between "Anglo Saxon" countries such as the UK, US and Australia, and the Continent of Europe. Households in the former are much more willing to incur debt – and the banks to lend to them.

As noted, from an economic viewpoint, individuals are assumed to wish to maximise their own consumption as an overall objective, and minimise work as opposed to leisure. Over a

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economic development of a country is a by product of the activities of a casino (i.e. the financial markets) the job is likely to be ill done" lifetime, there are periods when income is low (when studying, early in career and in retirement) and others when income is high (in middle age). The aim of rational individuals is assumed to be to maximise consumption over the life cycle and also prevent volatility in consumption (e.g. collapse of consumption in old age, low consumption in young adulthood). Stability improves utility overall if, as is commonly assumed, there is diminishing marginal utility of consumption (an extra unit of consumption when it is already high is worth less to an individual than an extra unit at low levels of consumption). Then, the so-called "life cycle" paradigm most commonly adopted by economists states that, the consumer does (and should) rationally carry out 'intertemporal optimisation' to boost consumption when it is low.

Given a normal income profile, i.e. rising over time, with heavy expenditure on household formation in young adulthood, this is likely to mean heavy borrowing early in the life cycle and corresponding repayments later. Such borrowing may be against the security of human wealth (consumer lending against future wage income) or non-human wealth (such as mortgages on property). Correspondingly, as regards purpose, the borrowing may be directly for consumption or indirectly for the purchase of investment goods or durables (house, car, white goods) that provide a stream of consumption services. Saving in middle age is then decumulated as a pension when the person is in retirement and income is low.

Growth in income and asset prices may raise the amount of borrowing in an optimal life cycle pattern of income, consumption and saving. A growing real income increases the residual part of income over and above necessities that can be devoted to interest payments, while growing wealth increases collateral for debt. Note that there is no reference in economic analysis of the life cycle to the wider implications of accumulating wealth, which are linked to independence, security, status and power. Nor does it refer to the risk of debt.

Constraints on borrowing may also affect the amount of borrowing relative to an optimal life cycle pattern. In this case, consumers are said to be "liquidity constrained" and their consumption will be closely tied to receipts of income, though assets will also be available to decumulate for consumption. Such liquidity constraints typically imply that households cannot consume at the level defined by their lifetime consumption plan, at the points where heavy borrowing would be required early in the life span. This is seen by economists as undesirable, as such liquidity constraints imply that constrained consumers incur welfare losses, owing to forced intertemporal rearrangement of consumption, even though consumption can be made up later in the life cycle.

Any loosening of lending constraints will naturally be marked by a sharply rising debt/income and (to a lesser degree) debt/wealth ratio, and falling saving, as observed in the UK since the 1980s. In the UK, financial liberalisation in the 1980s was one step in easing of such liquidity constraints, notably by increasing competition in the mortgage market. But a further step more recently was securitisation and development of global wholesale financial markets which enabled banks to raise far larger volumes of funds for mortgage lending than hitherto, with less restrictions (for example Northern Rock offered loans of 125% of property values). Note again that such a release of constraints is generally seen as positive development economically, since it enables consumers to approach their optimum consumption path.

An important aspect overlaying the life cycle in the UK is the behaviour of the housing market. It may itself impose dynamics on the pattern of demand for borrowing. In particular, researchers such as Hendry (1984) and Muellbauer and Murphy (1991) have found evidence of 'frenzies' where rising house prices enter a spiral with demand for mortgages, partly driven by fear on the part of first-time buyers of being left behind. This implies that at times rising prices may induce purchases purely intended for profit by resale. There has clearly been an element of speculation in some house purchases in the recent boom, notably buy-to-let, further boosting indebtedness. The counterpart may be sharp reductions in prices following such frenzies, as seen in the current crisis.

Going beyond this, it is acknowledged by economists that individuals have some tendency to prefer consumption today to that in the future (called pure time preference). This may be due to myopia, with people being unable to envisage the future; finite human lives; risks to any form of saving such as inflation or a stock market crash; and the expectation to benefit from the growth of the economy as a whole. This tendency may offset the seeming rationality of the life cycle, leading to tendencies to go into debt beyond the level needed for constant consumption over a lifetime, so that people "enjoy today and suffer tomorrow". On the other hand a countervailing factor should be the interest rate on deposits (or return on others assets) that encourages saving today over consumption.

The current working generation in the UK appears to be unusually affected by the tendency to consume more than is consistent with lifetime optimisation. Indeed, economists Barrell and Weale (2009) characterise a "profligate cohort" which closely resembles this behaviour. They have borrowed massively for consumption, both via consumer credit itself and by mortgage lending that is actually used for consumption ("equity extraction"). They do not appear to be saving sufficient for a comfortable retirement. This is of course facilitated by the free access to credit in the UK financial system. This pattern is not observed in countries such as Germany, France and Italy, where saving is much higher and borrowing much less – and where borrowing per se is much more restricted by the banks.

Possibly this generation in the UK expects that rising house prices will bail them out, or that the next generation will make generous pension transfers to them. But house prices may well come under downward pressure in coming decades when the current large "baby boom" generation retires, while as discussed in Section 5, the state of public finances leaves little room for an expanded social security pension scheme, even abstracting from the "ageing of the population". If these points are correct, then low consumption in retirement will be the long term downside of high debt.

The shorter term downside of free availability of debt is of course default risk, or even if consumers are able and willing to repay debt, periods when shocks to income or interest rates actually lead to much lower consumption than is desired. Default risk is dependent not merely on debt or income but also on the other assets in the balance sheet of the borrowers, and macroeconomic variables such as interest rates and the economic cycle. Given the link of debt to asset prices and the possibility of bubbles there is a risk of overborrowing, especially when people misperceive likely future income growth, or their employment security. Economic analysis of default is assumed to be based on simple cost and benefit analysis by individuals; costs of default may include financial penalties and also restricted access to credit in the future. It is not seen as a matter of moral judgement.

Lenders may rationally be expected to charge higher interest rates on loans with higher credit risk, or ration credit, for example by requiring lower loan-to-value ratios, to allow for the possibility of default. There are also disincentives to default such as loss of reputation and hence ability to access credit in the future, as well as for mortgage loans the possibility of repossession. On the other hand, competition between lenders is assumed to ensure that interest rates are not excessive. In the recent boom, lenders to buy to let, subprime and even conventional mortgages appear to have been careless about borrower risk, focusing only on initial returns rather than long term ability to repay. As noted above, this may link to the fact loans were often securitised.

There are of course differences between consumer credit and mortgage credit in terms of risk. Collateral for house purchase is immediately available in the form of the title-deeds to the property. Compared with consumer credit, the risk to the lender relates to the risk that, owing to regional or national depression, the value of the collateral will have fallen below the outstanding principal of the loan, in which case the borrower may have an incentive to default. There are obviously also transactions costs to foreclosure. Accordingly, the risk of a default leading to a loss for a lending institution is greater, the greater the proportion of a household's debt that is constituted by unsecured consumer lending. But this is reflected in high interest rates on credit card lending. In practice, greater quantitative losses have been made on mortgage credit, perhaps because the lower default rate makes lenders complacent about absolute risks to balance sheets arising from credit risk in real estate loans.

To sum up, while economics offers an understanding of the behaviour of households in the recent crisis, there remain puzzles from the point of view of "rational economic man" paradigm. For example, why is there the irrationality of borrowing in excess of the lifecycle optimum, threatening loan default and repossession in the short run, and a poor pension in the long run? Why was such a value placed on consumption "now" that saving was neglected? We now turn to a theological point of view to seek further insights.

4.2 The issue from a theological perspective

The starting point in assessing a biblical view of household debt is to consider its objective, namely consumption (including of housing services). We noted in Section 2.2 above that wealth and consumption should not be core to human life, rather relationships with others and with God. Furthermore, the bible is replete with warnings against excess in consumption. Jesus warns against greed (Luke 12:15) as does Paul, who warns against temptations from money leading to ruin and destruction (1 Timothy 6:9-10). There is a need to focus on moderation in consumption, being content with what you have (see also Beaudoin 2003), as for example is shown by Proverbs 23:4 "Do not wear yourself out to get rich; have the wisdom to show restraint" and 25:16 "If you find honey, eat just enough— too much of it, and you will vomit". The wise person is warned to get income first before consuming as 24:27 "Finish your outdoor work and get your fields ready; after that, build your house."

Sider (1997), arguing similarly for a simpler lifestyle, endorses John Wesley, who argued that the solution for a rich Christian is to give away all income except what is needed for "the plain necessaries of life", while nonetheless maintaining capital, and accumulating it further as necessary. The basis is the command in 2 Corinthians 8:13-15 that we should give enough for everyone to have a decent living "Our desire is not that others might be relieved while you are hard pressed, but that there might be equality…." . For Sider, the barrier is the "unprecedented material luxuries" of Western societies that too quickly becomes necessities. This may entail what is called "spiritual poverty" based on addiction to consumption.

Households in the UK and US evidently disregarded such advice, borrowing heavily to consume in excess of their income. Accordingly, biblically as well as economically, the blame for current debt problems cannot be laid solely with bankers; all need to consider the saying of Jesus "do not judge or you too will be judged" (Matthew 7:1). Borrowers freely took out large loans with a view to profiting from higher house prices, extracting equity for consumption or living in homes beyond their means. These loans have often now become a millstone for many, as house prices have fallen below the value of mortgages ("negative equity") or income is insufficient to pay interest on the debt. Over the long-term, heavy debt repayments will hinder ability to save for retirement, an activity that many households appear in any case to have abandoned.

We note that excessive consumption and debt is not only of concern for the risk it gives to households' future well-being but also for its side-effects on the environment and on the poor. There is also the issue whether consumption and GDP are good measures of happiness, health and well being (see SDC (2009)). We do not focus on these issues in the current paper.

The irrationality of recent consumer behaviour is perhaps less of a surprise to scripture than to economics, in the sense that a generation that disowns its creator, following on from the fall, is not likely to act in its own interests either (Psalm 53:1 "The fool says in his heart, "There is no God." They are corrupt, and their ways are vile; there is no one who does good.") The link of atheism - or lukewarm faith - to materialism is clear in Proverbs 30:8, which says "Keep falsehood and lies far from me; give me neither poverty nor riches, but give me only my daily bread. Otherwise, I may have too much and disown you and say, 'Who is the Lord?'…"

The bible is replete with warnings about debt. A key aspect is of "binding the future", in the sense that debt limits the flexibility we have in life, and can ultimately lead to a form of slavery, as was the case for the Egyptian farmers during the famine who had to give up their land to Pharaoh in exchange for food (Genesis 47:21). Equally in Nehemiah 5:3-4, the Israelites were forced to go into debt, or selling their children into slavery to obtain food from the rich or to pay taxes to the king. There is a biblical parallel of debt to sin, given that both are enslaving and destructive if not covered and eliminated (compare the Lord's prayer in Matthew 6:12 and Luke 11:4). Selby (1997) argues that debt closes down the possibility of the future in both Old and New Testaments, and hence the potential of the Christian life.

The Bible also warns getting into debt voluntarily, pointing out how the borrower is servant to the lender (Pr 22:7). Hab 2:6-7 gives warnings about speculation and use of borrowed funds to enhance standards of living, as it states "Woe to him who piles up stolen goods and makes himself wealthy by extortion! How long must this go on?' Will not your debtors suddenly arise? Will they not wake up and make you tremble? Then you will become their victim." This might arise for example if the assets bought with borrowed funds fall in value as in the case of highly leveraged housing loans. There are also widespread warnings about guaranteeing debts for others, as in Proverbs 22:26-27 and 11:15). This is not only due to the risk of financial loss but because the borrower is likely to be borrowing beyond their means if such an arrangement is needed. Furthermore, the relationship of the borrower to the co-signer is at risk in this case.

There are widespread provisions for writing off debt in the Bible, although they typically assume the borrower is poor and the loan a virtual obligation owing to adverse financial circumstances rather than, as in recent years, a voluntary transaction motivated by speculation or desire for a higher living standard. And it is not clear they were ever instituted. The Jubilee (Leviticus 25:23-28) every forty nine years was to allow for periodic return of land to the family that originally owned it, that may have had to sell it due to debt. The Sabbath year (Deuteronomy 15:1) every seven years entailed release of debts, freedom of Hebrew slaves, and land left fallow so the poor could eat; leaving the corner of a field unharvested. There was to be no taking of a millstone due to debt, which would threaten a family's livelihood. Deuteronomy 6:15 urges Israelites to cancel any debt other than one to foreigners. In these provisions God overrides unlimited property rights for the rich with his own higher justice, since he is the maker of all things (Ecclesiastes 11:5).

More broadly, God creates a mechanism of 'structural justice', giving rise to entitlements for the poor, to offset the tendency of fallen humankind to exploit others' misfortunes. As noted, Matthew's version of the Lord's prayer talks about forgiving debts, as we forgive debtors (Matthew 6:12). Paul urges the Christians in Romans 13:8 to let no debt remain outstanding among them. Selby (1997) argues that the "Nunc Dimittis" of Simeon in Luke 2 is related to releasing a slave from the past, akin to releasing a debtor, in the context of the broad theme of redemption. Similarly, banks may need to offer debt forgiveness to those in consumer debt beyond their ability to repay, or at least offer interest holidays or extended repayment periods for mortgage borrowers.

A wider obligation rests on Christians to care for the needy, who cannot sustain consumption due to shocks – or following their own financial errors (Selby 1997). We are commanded to give to those who have immediate acute needs from hunger and lack of clothing and shelter (1 John 3:16-18) as do charities. But at other times lending is seen as an appropriate response, as in Deuteronomy 15:7-8 "freely lend him whatever he needs" and Luke 6:30-35 albeit "without expecting it back". This is to enable individuals to maintain self respect, to acknowledge their responsibility to care for themselves, and to affirm desire and hope to repay. Meanwhile the lender is acting as God would, being willing to forgive debts.

This point does not extend to those still able to repay their debts but refusing to do so. For them, the Bible stresses taking responsibility for actions – there is an obligation on borrowers to repay debts incurred (Ps 37:21) "The wicked borrow and do not repay, but the righteous give generously." The bible accepts the use of collateral, implying an expectation of repayment (Deuteronomy 24;10-13). Bankruptcy should not be seen as an easy option, and especially not if the borrower knew from the time of borrowing that their financed were overstretched. Even if is forced into involuntary bankruptcy, the Scripture enjoin keeping one's word (Numbers 23:19, Hebrews 6:13-20). So there could be an attempt to make amends for earlier losses for the lender once the borrower's financial situation improves.

Responsible behaviour includes also avoiding the need for assistance, if it lies within our means. For example, we have seen that a corollary of the debt binge is inadequate saving for pensions and a risk of being a burden on others, which Paul warns Christians about (2 Thess 3:10-12). The "profligate cohort" seemingly relying on house prices, social security and the generosity of their own offspring to bail them out is acting irresponsibly on this basis. James 4:13-17, besides illustrating the arrogance of bankers, is relevant to the "presumption on the future" that not saving sufficiently entails.

The command to write off debts after 7 years in Deuteronomy 15:1 is also a limit on the duration of debts, assuming the lender wanted to retrieve his assets. The lender was to know that if he loaned money that could not reasonably be repaid within the 7 years, this would be written off. Accordingly, the lender would be incentivised to care for the long-term best interests of the borrower, where the latter is assumed to be in a position of relative weakness. Not lending too much and being allowed to extend terms in case of difficulty are among the responses that lenders should adopt.

We note that with free availability of credit, houses may be priced out of the reach of those on low income, i.e. there are external effects as well as direct effects of individual debt. This is akin to the prophetic concern about land holdings and poverty. It could be personal, as in the case of seizure of land from the poor (Micah 2:1-2) and stealing land by moving boundary markers (Proverbs 23:10). Or, it could be "structural" as in the case of legalised oppression of the poor (Amos 2:6-7), a corrupt legal system, and unjust decrees favouring the rich (Isaiah 10:1-2), leading to concentration of land holdings (Isaiah 5:8). It is clear that there is an upcoming generation who have lost out massively from the housing bubble simply because they cannot afford houses, and are having to rent or stay with parents (as well as being burdened with student debt). All of this is redolent of injustice. Even with the falls in house prices to date, they remain very expensive relative to average income. The older generation and the banks have a responsibility for this. A fall in house prices would help to resolve the situation, at a cost in particular to current indebted homeowners.

On the positive side of debt is the underlying biblical value of having property/housing, as in the future envisaged in Micah 4:4. Indeed, Schluter and Clements (1986) argue that the Old Testament implies even today that each family should own a plot of land in perpetuity, with three generations living there together. Overall, the implication is that borrowing for investment purposes as in mortgage borrowing is more biblically acceptable than consumer borrowing "taking the waiting out of wanting". But we have just argued that house prices are excessive and remain so, thus limiting people's ability to get into the housing market.

One should not exaggerate the support in the Bible for property rights. The concept of Jubilee, the debt Sabbath after seven years and justice, means that personal property is subordinated to the relationship with God. Brueggemann (1977) argues that the debt Sabbath for example affirms that human society is not based fundamentally "on buying and selling, owning and collecting…people like land cannot be finally owned or managed". Jesus' attitude was finally one of renunciation of property (Luke 12:22-34), telling followers to ignore economic security and avoid pursuit of wealth – not least in the light of the coming end of the world, and judgement after death.

An important issue is whether the Bible forbids interest (the issue of usury) (Clough et al 2009). Usury is a word based on the Hebrew to "bite" or "exact" something from someone. Usually it entails debt in the context of a personal transaction, and not a competitive credit market as economics assumes. The immorality is that when the lender has been blessed by God (with sufficient resources to lend money) then they should offer the same kindness to needy neighbours. Exploitation of the poor by the rich is central, in other words, to the concept of usury.

In the Bible, interest is generally treated as usurious, unlike modern usage which sees usury as a form of excessive interest. Nehemiah 5:7-11 condemns interest exacted from fellow Israelites to pay for grain. Leviticus 25:33 states that interest should not be charged "if one of your countrymen becomes poor and is unable to support himself among you". The interest is then taking a "bite" from future income, threatening long term viability of the household of the person in question. It is widely stated in Scripture that loans to the poor should be at zero interest out of the heart of love that God has for us, and God will reward the lender (Exodus 22:25, Proverbs 19:17). A parallel to the abuses highlighted in the Bible could be the heavily marketed store cards that demand high interest and are often directed to those on low income. And we have noted above how debts of any kind "bite" into future income, also threatening pensions.

The focus of the above is on loans to the distressed, see also Leviticus 25:35-36. On the other hand, Ezekiel 18:8 intriguingly states of a righteous man that "He does not lend at usury or take *excessive* interest" suggesting moderate interest is acceptable. It is evidently acceptable in the Bible to demand interest for trade with a foreigner, for mutual benefit (Deuteronomy 15:3). Banks and moneychangers were acknowledged in the New Testament (Matthew 21:12, 25:27, Luke 19:23) as discussed In Section 3 above. Passages such as this helped Calvin to overturn the medieval ban on interest as long as it was for commercial purposes ("to make concession to the common interest"). But since then, the distinction of lending for commerce or consumption or to rich or poor has been itself blurred in a way Calvin himself might not agree with. Furthermore, bankers remain subject to God's judgement, as discussed in Section 3 above.

4.3 Confrontation and reconciliation

As for banking, we consider access to credit essential to household welfare, and the issue, rather than curtailment of access, is whether it can be distributed with less risk of financial distress for households.

The optimisation of consumption over the life cycle as well as the biblical concern to avoid excessive debt both seem to suggest a need for limits to be put on household debt. If borrowers cannot be relied upon to be responsible, as the 125% mortgages taken on in recent years suggests, then this is an obligation for the lenders to set limits, and possibly for public regulation. This could be via limits on mortgage gearing (loan to value (LTV) ratios, or interest payments to income) for example. This is the case in countries such as Germany where it is difficult to obtain a mortgage loan for more than 80% of the property value, due to the inability of banks to securitise higher LTV loans as mortgage bonds.

If there were such limits on debt, while house prices remain high, many more people would stay at home with parents, as in Italy, or would rent. The justice of this could be questioned from a biblical as well as a social perspective. A complementary approach might hence be greater taxation of the housing market, to reduce the attractiveness of housing as an investment and thereby reduce house prices. A land tax or a tax on housing services (which did once exist in the UK) would be ways to do this. Another way to achieve this is simply to release planning restrictions so housing supply could catch up with housing demand. Falls in house prices would tend to benefit those unable to access the housing ladder, although there would be strident "losers". It is notable that in Germany there has been very little house price inflation in the past decade (although the price of a house is typically high due to building standards).

Given its greater use by the poor, and hence the high default rate it causes, limitations on use of consumer debt may be even more appropriate.[18] It after all does not provide an asset to pay back the debt, and is the most problematic for the poorer members of society. Given the way consumer debt entraps people, it could be seen as akin to the selling of a birthright of financial freedom in the future for a worthless meal, as in the story of Jacob and Esau in Genesis 25:29-34. Individuals must be responsible for their actions; but the lenders are equally culpable. The conventional banks do not merely offer these products and compete on price - they spend many millions actively encouraging the build up of debt, especially amongst the poorer credits where the greatest margins are to be made. Credit cards sent unsolicited in the mail – what would have been unacceptable behaviour 20 years ago - is putting people "in the way of temptation" as surely as the serpent did to Eve. And God did not absolve the serpent of blame when he cast Adam and Eve out of Eden.

This form of credit is in our view closest to the biblical view of usury. A limit on interest rates chargeable would be one way to reduce consumer debt, since banks would then be much more careful in lending on this basis, the risk premium to cover losses being lower. Or alternatively credit card maxima could be related closely to income and a central credit register (which already exists) used to ensure that individuals do not obtain multiple cards and so breach such limits. A third approach would be to limit advertising for consumer credit, thus helping to

[18] These points apply yet more strongly to "Home Credit" the form of high interest doorstep loans used by the poorest members of society.

reverse the social perception that it is appropriate to use credit to "have it all and have it now", which the financial industry has been fostering since deregulation in the 1980s.

We note that limits of consumer credit, or even better a shift in social perceptions towards a more traditional "save first to buy durables" view would have multiple benefits for society. Having been reintroduced to the benefits of saving to buy goods, individuals would be much more willing and able to save for their own retirement, which we have seen is being eroded. Balance sheets resulting would be more like those for households in Continental Europe, and would be both more robust to shocks and offer sustainable levels of consumption.

As economics and the theology both consider that debt is too high, this raises the issue of whether the current burden of debt can be reduced and if so how – what sort of Jubilee is feasible? (Ferguson 2008). Unfortunately those which are feasible would cause major losses to others in the community. Notably, while inflation would drive up wages as debt falls in real terms, this would tend to inflict losses on savers, who may be pensioners reliant on their interest. Or, if banks were simply to forgive debts and became bankrupt, the losses would either again be inflicted on depositors, or more likely on the public debt, as discussed in Section 5 below – and thus largely on future generations.

Economics sees interest as a sine qua non for beneficial economic development. In our view, even from a biblical point of view, the debate on usury should not overflow to all forms of interest. It would prohibit safe forms of saving for the relatively badly off and pensioners, leaving them to rely on volatile equity-type products. Nevertheless, non-debt forms of housing finance can be devised and are worthy of attention. A form of equity loan as in Islamic banking[19] could be developed as an alternative to traditional mortgage debt. Sharia-compliant products currently available in the UK are based on Ijara, Murabha and Musharaka methods.[20]

For example, HSBC[21] offer Musharaka mortgages. In their words, "we will buy the property jointly with you. The property will be held in trust for both of us by HSBC Trust Company. As you make monthly payments, your share of the property will increase as the bank's share decreases. Assuming you pay a 35% deposit, at the start of the agreement the bank will typically have a 65% share and you will have a 35% share. With each payment you make, you will pay us rent for use of the bank's share of the property and acquire an additional share for yourself. Once all the payments have been made, you will own all the shares and the property will be transferred to your name on your instruction. You can also make additional lump sum payments which will allow you to acquire additional shares in the property. *Your home is at risk if you do not keep up the required payments and comply with the terms of your HSBC Amanah Home Finance plan."* The last point is worth noting. It is not the case that Islamic

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[19] According to www.islamicmortgages.co.uk, the overarching principle of Islamic finance is that all forms of interest are forbidden. The Islamic financial model works on the basis of risk sharing. The customer and the bank share the risk of any investment on agreed terms, and divide any profits between them.

[20] Under an Ijara finance plan, the customer chooses the property and agrees a price with the vendor in the normal way. The property is then purchased by the financier, who takes its legal title. The property is then sold onto the customer at the original price, with payment spread over an agreed period of time. During that time, the customer also pays the financier rent for the use of the property. Once the agreed period of time has elapsed, ownership of the property is transferred to the customer. Under a Murabaha plan, the customer chooses the property and agrees the price with the vendor in the normal way. Similarly, the financier then purchases the property from the vendor, but on the day of completion it is immediately sold on to the customer at a higher price. The higher price is determined by the value of the property, and the number of years that the financier allows the purchase price to be paid over and the amount of the first payment. The customer then makes regular monthly payments until the purchase price is paid.

[21] See http://www.hsbc.co.uk/1/2/personal/travel-international/hsbc-amanah/amanah-home-finance/how-it-works

mortgages are risk free and may not even be safer than normal ones, at the same level of gearing. Owing to their complexity they may be costlier.

The church has a clear role to play as offering an alterative culture to that of debt and consumption. Given the way individuals seem to misjudge even their own best economic interests, this would be of general benefit. For example, the church needs to be a community that helps members, akin to the church of Acts 2:44-45. Individuals need to feel accountable and available to one another, and support one another against poverty arising from debt. There is also a question of spending priorities for the church, with more for the poor and less for opulent buildings; and avoidance of debt for building projects. The church is unable to insist on governments legislating against domestic poverty unless it shows an example, acting as salt and light (Matthew 5:13-16).

Again, whereas the economic paradigm is that consumption is always good, recent experience has shown its risks if pursued to excess, while Scripture cautions against giving it too much prominence in our lives. Churches need to preach this matter. Consumerism, defined by Gregg (2009) as “attaching too much significance to material goods, even to the extent of defining ourselves by the number and type of our possessions, and measuring our worth in terms of what we have compared to others” is a key challenge for Christians as well as for society as a whole. We have lost the virtue of temperance, which “moderates the attraction of pleasures and provides balance in the use of created goods” (Vincent 2008). This means Christians need to assess whether they are have been absorbed by the consumer society without taking note, in particular whether they are borrowing responsibly or not. Temperance needs to be proclaimed from the pulpit. The church should also critique the social pressures that induced overindebtedness, assessing whether banks – and the government via student loans - create a form of structural evil, a social norm that people should go heavily into debt.

Then there should be financial education from the church with an ethical basis such as the CAP Money Course, which teaches avoidance of debt and use of cash as a means of restraint in expenditure. There is a need for teaching discernment in debt and consumption decisions. And finally the church must model the virtue of mercy, of caring for those who have suffered misfortune due to debts, unemployment or other consequences of the crisis. One aspect is debt counselling within the church or by charities linked to churches such as CAP. Christians can be encouraged to provide finance to one another, within families and congregations to avoid debt (Mills 2009). But more generally the church must show mercy by pastoral, personal and financial support for those who are now weak and vulnerable owing to debt problems.

5 The government sector – public debt

5.1 The issue from an economics perspective

Government debt issues only arise when there is an imbalance between government revenue and expenditure, regardless of the size of the public sector. Nevertheless, background to the issue of public debt is the conflict between the “liberal” economic approach versus the “social market”, whose primary focus is the size of government. The difference hinges largely on whether there is laissez faire or benefit-based “safety nets” for those facing difficulties in life. The former argues for a small public sector, focused on areas such as police and defence, while the latter might include social security, pensions and public healthcare.

As noted in Section 2, a pure utilitarian approach to economics and economic policy often leads to a preference for the former, while inclusion of some wider political element such as a social contract may tend to encourage the latter. In practice, the minimum option is rarely taken up, but the tension remains, e.g. between the US and Japan, with small public sectors and EU countries with large ones. The view taken of laissez faire affects views both of the size of government per se (i.e. what share of GDP should be taken up in taxation and government expenditure) and the degree to which the economy is seen as self-righting in response to shocks. The laissez faire approach tends to suggest that the economy will recover and deficits and debts are not needed, while the social market approach is willing to spend the way out of recession.

On the social market view, fiscal deficits can be seen as an optimal response to cyclical weakness, buoying the economy when demand falls. And this is what has happened in the current downturn. To some extent this will take place via the operation of automatic stabilisers, which entail a decline in tax revenue and a rise in benefit payments when there is a downturn. But also governments may carry out discretionary fiscal boosts such as public investment programmes to further buoy the economy. All such deficits will generate rises in public debt, which is typically in the form of bonds to be repaid in the future.

In the current downturn there has also been quantitative easing by central banks which is in effect governments printing money, with a risk of future inflation. Certainly, if inflation were generated this would be consistent with behaviour over the past half century when governments have in effect expropriated bond holders by high inflation, which massively reduced the real value of bonds. The inflation of the 1970s in particular inflicted catastrophic losses on holders of UK government bonds. There is a clear incentive for governments to undertake this again, which may be increased by the partial use of money financing.

There are arguments as to whether deficits, especially if bond financed, will actually have an impact on aggregate demand, or whether households and firms will reduce their consumption and investment to allow for the future taxes to repay debt. Such effects may depend on how much confidence the public have in the government's ability to stabilise the economy. An additional offset to the ability of deficits to generate a recovery may arise if there are spillover effects of rising public debt on other borrowers by rising long term interest rates, which discourages business investment in particular. Such rises in interest rates may be particularly likely when foreigners are the main holders of debt or when holders fear that the government will generate inflation to avoid its debt burden. A broader issue which arises for poorer countries is the issue of unsustainable foreign currency debts to the international capital markets, and rich country governments.

Economists distinguish between cyclical and structural deficits, where the latter are persistent even when the economy attains its normal rate of growth. Structural deficits threaten continual rises in public debt, which are of particular concern given the oncoming challenge of population ageing. The UK government has been widely accused by economists of running a structural deficit in the boom, meaning that the fiscal position was weaker than that which is consistent with balanced budget over the cycle. This in turn may have made economic growth and the credit/house price bubble larger. It is argued that this was a consequence of the desire of the government to have rapid spending growth for electoral reasons, without raising the necessary taxation. There are clear parallels with the household sector's desire to consume beyond its means by borrowing. Given the limited amount of saving in the UK, both the government and the households ended up borrowing from foreigners, directly or via the banks.

Fiscal policy has a specific role to play in a banking crisis – namely recapitalisation of banks which entails a step rise in the level of public debt. And this has been a major explanation of the rise in public sector debt since last year. But the depth of the recession has also led to major rises in public debt due to automatic and discretionary fiscal easing. It is anticipated that cuts in public spending will be needed in coming years to balance the government's books in the context of massive growth in debt and slow overall economic growth.

5.2 The issue from a theological perspective

The Bible starts from the idea that the state and government should in general be supported by citizens as instituted by God to be a source of stability (including economic stability), being "God's servant to do you good" see Romans 13:1-7. Also that payment of taxes are an obligation, as Jesus states in Matthew 22:17-21.

There are theological arguments to help the poor – including those affected by debt problems - that apply at the level of government as well as for individuals and are considered by many to support a social market approach to fiscal policy. These imply a welfare system and progressive taxation can be seen as Biblically based, providing a form of structural justice in society. Indeed, rulers are held responsible for injustice to the poor (Proverbs 28:3). The servant in Isaiah, inter alia identified as the nation of Israel, Christ himself and his church, is called to bring justice to the nations (Isaiah 42:1-4). This could be seen as consistent with Romans 13:1-7, often seen as mandating a "minimal state" if the pursuit of justice is seen to include justice to the poor.

As regards borrowing, a state in a surplus position is blessed (Deuteronomy 15:6, 28:12-13), notably if debt is foreign. 15:6 for example states that "the Lord your God will bless you as he has promised, and you will lend to many nations but will borrow from none. You will rule over many nations but none will rule over you". The implication is that the surplus nation has a whip hand over the debtor, as has been the case for developing country debt - and could yet be the case for advanced countries with very high levels of public debt. The East Asian countries are the creditors of countries such as the US and the UK and this could yet translate into greater political influence.

The arguments above favour a public sector that seeks to correct some of the grosser inequalities in income and life chances that would be generated by the free market. But it need not imply a need to run deficits on average over the cycle. Rather, Biblical prudence as set out above would suggest to balance the books over the cycle, while running deficits for stabilisation purposes during recessions. The profligacy of governments running structural deficits could be compared to those rulers criticised for their extravagance in the bible (Jeremiah 22:7-23 for example).

A downside of the current growth in debt is that the future generations of taxpayers will be obliged to finance what can be seen as errors by current government, bankers and borrowers. The Bible speaks of intergenerational fairness and the "sins of the fathers being visited on the children", parallel to which is that our children will have to repay debts we incur. Jeremiah 31:29 and Ezekiel 18:2 suggest that it is not God's will that punishment should continue down the generations, and similarly we should not place burdens on future generations that we did not have to bear. Equally, intergenerational fairness could be seen as contrary to the scriptural golden rule of Matthew 7:12 "do to others what you would have them do to you". This is the same generation that has also suffered from the rise in land prices, as well as adverse conditions in student finance, mandated by the government, where the "fathers" benefited from grants but today's "children" have to incur massive debts.

Alternatively, if lenders to the government are expropriated by inflation, then this is akin to false weights and measures that the prophets repeatedly condemned (Micah 6:11) as does the Law of Moses (Leviticus 19:36).

5.3 Confrontation and reconciliation

Is current fiscal policy placing too much of a burden on future generations? It can be argued that the rescue of the economy from the crisis is warranted, but the question is how loose was fiscal policy as we went into the crisis. There would appear to have been a structural deficit during the boom, which means that the overall deficit now is much larger and more difficult to remove than would otherwise be the case – and the debt build-up much greater. Underlying the structural deficit is a willingness of government, for electoral reasons, not to levy sufficient tax to fully finance the level of public expenditure that they choose to offer. This is economically destabilising and contrary to the biblical injunction to promote stability. Equally to be criticised is any realisation of the risk that the government debt will be "monetised" – eroded by inflation which would have major redistributive consequences.

Indeed, government can be accused of misleading the population by its earlier fiscal policy of structural deficit in the boom years. By boosting growth, it made people more willing to go into debt, by leading them to believe their income growth – and house price appreciation - would continue to be high. This was aggravated by statements by the UK government that sustainable growth was as much as 2.75% when respected independent forecasters[22] considered it to be 2.4%. The difference is very significant over the long term and meant individuals were not correctly informed about the long term risks of their balance sheet positions.

There are similar criticisms to be made in the short term. Quite apart from evidence from crises in other countries, UK experience of 1974 and 1991 showed that credit-driven booms as was clearly underway up to 2007 are only temporary, and the downturn highly destructive. Accordingly, the government had a responsibility to warn the population as well as adjusting fiscal, monetary and regulatory policy to deflate the boom. To do otherwise would be like the false prophets of Jeremiah, who proclaimed "peace, peace, when there is no peace" (Jeremiah 8:10-11). Governments, in effect, seem to have sought to create the illusion that the economy can be run on a "no-risk" basis, which helped generate the behaviour of households and bankers highlighted in Sections 3 and 4. In effect, such a belief would lead people to feel insulated from the consequences of poor decisions and bad investments.

In more detail, it can be argued that governments should have warned that when the bulk of the population has become fully geared (i.e. having debt service obligations which left no disposable income after ongoing needs), the growth of personal debt and hence consumption would stall. There is initially a sharp correction (as we see today in the US and UK) as those people who have jobs try to rebuild their balance sheets, and private demand actually falls. This affects both the stock market, as stock market values represent the net present value of future sales growth and the housing market, also hitting personal wealth. Even in the medium term, consumption can for some time be expected to revert to the status quo ante before financial liberalisation in the early 1970s, when consumption rose as fast as average earnings and no faster. Future governments must be more forthcoming in warning about this cycle, as well as avoiding fiscal laxity. Possibly, as suggested by Mills (2009) an independent fiscal commission could be appointed to ensure that governments run responsible fiscal policies.

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[22] Such as the National Institute of Economic and Social Research.

In assessing fiscal policy, it can also be asked whether the tax system promotes the type of private debt highlighted as a problem in Section 4. Certainly this is the case for companies where debt is tax deductible while equity is not. This tax bias has contributed to the rise in corporate debt and arguably led the level of bankruptcy to be higher than it would otherwise be. Whereas the tax deductibility of mortgage finance was abolished in the UK some time ago, it can be argued that the low level of taxation of owner occupied housing has contributed to the high level of house prices, and hence of mortgage debt. In this context, we also argue that student debt as mandated by government is conditioning people to expect to be in debt for all their lives, weakening their resistance to credit cards, excessive mortgages etc.

The rescue of banks was evidently necessary, but there is a need for governments to act so that such rescues are not needed again. Following the point made above, the safety net also led bankers to feel insulated from the consequences of poor decisions and bad investments. The difficulty is that a "safety net" leads to risky behaviour, as highlighted in Section 3, but a lack of a safety net exposes the economy to extreme risks. The generosity of the current approach could store up greater risks for the future, Hence the current proposals including for higher capital and "living wills" for banks in case they get into difficulties. Regulation may not be the sole answer, as suggested in Section 3.3 – one response in line with justice is that there should be no "free pardon" for bankers whose institutions have failed and who prove to be directly culpable, as seemed to be the case for Fred Goodwin.

Like banks, the public cannot treat the government as something autonomous, this is again idolatry. Rather, we all have the responsibility to understand these issues, take a view and press for it in public and via MPs. And to stand in accusation when we discover we are being misled.

6 Overview and recommendations

We have highlighted three long-term issues from the crisis, which are the role of banks in provoking the crisis, the burden of debt on households and the debt of the public sector. Biblical theology has important lessons to teach in all these areas where there is now a "conventional" wisdom from economics. Their combination helps us to approach policy and address personal behaviour from a new and incisive viewpoint.

We have seen a number of themes emerging. In particular, we see that a variety of actors in the economy – the banks, the public and the government – have acted in recent years to maximise their personal utility in the pursuit of self interest. This is precisely as economics predicts. Bankers were seeking higher remuneration, households more consumption, and governments to be re-elected. But there was a flaw in the rationality of each of these approaches, contrary to the expectations of economics but strongly in line with the biblical view of the fall and mankind's imperfection. Underlying this, we see common aspects of greed, selfishness and impatience of many individuals in all three aspects of the crisis.

These aspects which were not only undesirable in themselves but also often counter productive. The bankers put their livelihood at risk by their self-interested actions, since their institutions became destabilised. The households went to such extremes of indebtedness that they risked default, bankruptcy and repossession in the short run, and an impoverished old age in the longer term. By doing so, they fed the bankers' self-interest further. In the boom we contend that governments effectively misled the population about sustainable economic growth, also "doping" the economy with loose fiscal policy and giving the impression that risk had been abolished, in the economic realm as in others. Ultimately in search of (continued) power, they thereby encouraged both the bankers and the households to believe that high levels of debt could be sustainable, leading to catastrophe for many.

For there have been casualties of this process. These include not only the bankers out of work and households who regret the debts they have incurred, but also "innocent bystanders" such as those unemployed due to the recession despite their industry being uninvolved in the "bubble", and those affected in developing countries. Casualties also include the coming generation, which has already been charged highly for formerly free higher education, but is now also priced out of housing, and will be burdened with future taxes to pay off government debt. There is strong evidence of injustice in a number of these.

We have highlighted some potential remedies. We agree that conventional bank regulation is part of the answer, as is currently being discussed by governments – including regulation of bonus schemes. But we contend that a wider focus on values, and encouragement of virtues in banking, as well as a reestablishment of the importance of relationships is needed to truly generate a stable and socially beneficial financial system. Equally, while some limits on household debt seem justified, the underlying social pressure for ever-more consumption – the idea that "a man's life consists of the abundance of his possessions" need to be tempered. This is not only in the interests of those concerned but is desirable due to environmental aspects also.

A biblical analysis of the current situation implies that idolatry – be it of banks as institutions, of governments as providers, and of money and wealth more generally - needs to be recognised, and the structural injustices and evils such idolatry generates, condemned. Besides the obvious points, this includes a call for individual responsibility to be accepted so that people no longer hide behind "institutions". If it can find a voice, the church will have a role in these necessary transformations, as well as standing ready to criticise governments when they act contrary to truth or justice, and offering merciful support to casualties of the recession.

In outlining the biblical approach we have in effect come to a critique of the overall aims of economics – wealth, consumption, power - in contrast to Jesus' proclamation of the Kingdom of God, the law of love for God and neighbour and responsible stewardship of resources. The aims of "rational economic man" having been taken largely on board by policymakers, there is a need to broadcast the biblical approach energetically.

In more detail, some of the issues that we have highlighted as warranting attention in the wake of the crisis are the following:

- Challenging the dominance of economics as a ruling paradigm of society, and addressing the impact of its amoral approach on the way we live.
- Questioning the common assumption that the market system is both rational and self-stabilising.
- Regulation is not enough to generate stable banks, values must be adhered to and virtue must be nurtured – but "virtue" among bankers may be difficult to encourage without religious faith.
- Accordingly, the importance of Christians engaging in the City.
- The importance of banks retaining experienced staff.
- The need for the importance and size of the financial sector to decline somewhat.
- Re-establishing the importance of relationships in lending and other financial transactions.

- Limiting the scope of indebtedness – by bank behaviour, regulation, and individual restraint. Considering the behaviour of other EU countries where credit is less freely available and saving is more common.
- Reducing house prices relative to incomes, given the injustice to the coming generation.
- Ensuring responsibility is taken for the destruction caused by consumer credit.
- Assessing whether existing household debt can be reduced – is a "Jubilee" feasible?
- Are non-credit forms of housing finance feasible and superior to interest?
- The church as a provider of an alternative culture to debt and consumerism – and its role in education, debt counselling and relief of poverty generated by debt.
- The burden of government debt generated by fiscal policy on the future generations.
- The role of structural deficits persisting over the cycle in boosting growth and hence potentially misleading the population about their sustainable level of debt.
- The responsibility of government to warn of the consequences of a credit/housing boom, and to act to defuse the boom.
- Addressing the degree to which the tax system – or other aspects of government policy - promote indebtedness.
- Considering whether we treat the government as something autonomous, rather than the responsibility of the citizen – or bankers treated their institutions as a way to avoid personal responsibility.
- The common aspects of greed, selfishness and impatience exhibited by many individuals in respect of all three aspects of the crisis.

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APPENDIX 1: Generic aspects of financial instability and the current financial crisis

As outlined in Davis and Karim (2009), financial crises like the current one are not random events but share key common features. As highlighted in Table 1 the process often starts with a favourable shock to the economy and financial system that boosts growth and investment. But in some circumstances this can lead to a build-up of vulnerability in the economy and financial system, associated with overextension of balance sheets and build up of financial imbalances. Price based measures of asset values rise and price based measures of risk fall. Balance sheets grow, short term funding increases and leverage falls. These exacerbate the boom and leading to a crisis when a secondary (adverse) shock hits a vulnerable financial system.

The crisis which then ensues features liquidity problems for financial institutions (provoked by credit risk or market risk) as discussed in Section 1. In turn, there is further propagation in a crisis period (systemic risk) that typically entails policy reactions if the crisis is sufficiently severe, and considerable adverse economic consequences (what we can term the “costs of instability”).

Phase of crisis	**Nature**	**Example of features**
Primary (favourable) shock	Diverse	Deregulation, monetary or fiscal easing, invention, change in market sentiment
Propagation - build-up of vulnerability	Common – main subject of macroprudential surveillance	New entry to financial markets, Debt accumulation, Asset price booms, Innovation in financial markets, Underpricing of risk, risk concentration and lower capital adequacy for banks, Unsustainable macro policy
Secondary (adverse) shock	Diverse	Monetary, fiscal or regulatory tightening, asymmetric trade shock
Propagation - crisis	Common	Failure of institution or market leading to failure of others via direct links or uncertainty in presence of asymmetric information – or generalised failure due to common shock
Policy action	Common – main subject of crisis resolution	Deposit insurance, lender of last resort, general monetary and fiscal easing
Economic consequences	Common – scope depends on severity and policy action	Credit rationing and wider uncertainty leading to fall in GDP, notably investment

This approach can readily be applied to the subprime crisis as described in Section 1.2. As regards favourable shocks, the monetary policy stance of most countries was relaxed from 2001 onwards, as policy sought to stimulate growth in the wake of the equity bear market in the absence of significant inflationary pressures. Underlying this was the additional shift of globalisation and the growth of China, the low price of whose goods helped to keep inflation low. There was clearly an easing of entry conditions to financial markets, leading to heightened competition and risk taking. Easy financing of hedge funds is one example; another is the growth of SIVs and conduits to hold securitised assets, an innovation that facilitated entry. Furthermore, origination of lending to US sub prime households was often by non banks not previously active in that market.

Debt accumulation and asset price booms, generating vulnerable balance sheets in the financial and non-financial sectors; rises in debt of both the corporate and household sectors in the US and much of Europe took place over the mid 2000s, with prices of equities and real estate rising alongside. These were, as noted, potentially unsustainable and the more recent fall in asset prices combined with high debt has led to weak balance sheets and widespread defaults and insolvency. Innovation in financial markets, which increases uncertainty during the crisis was a key aspect of the sub prime crisis. All financial innovations give rise to a risk of financial instability, because their behaviour in a period of turbulence is unknown. The innovation of structured products was by its nature likely to generate such uncertainty in extreme form given the opacity and difficulty of pricing the instruments even in good times, despite which they benefited from a liquidity premium as securities, while investors were apparently unconcerned with the principal agent problems which are fundamental to that innovation.

Risk concentration and lower capital adequacy for banks, which reduces robustness to shocks is the final indicator. Banks' risk adjusted capital ratios seemed sound in 2007, but the conduits and SIVs generated hidden difficulties for banks, as did warehousing risk with failure to dispose of loans by securitisation in a manner expected. In terms of a negative shock, monetary tightening was indeed on the cards in 2007 owing to shrinking output gaps and higher energy prices, although it is harder to suggest that this feature actually triggered the crisis. And the authorities have indeed been forced to intervene massively with public money to prevent the banking system from collapsing, by recapitalising banks and guaranteeing loans and deposits.

APPENDIX 2 Why banks are fragile, and need regulation

Stating that banks suffered runs or liquidity problems is not sufficient for understanding the nature and causes of such events. A simple stylised illustration of bank balance sheets helps to understand both the underlying fragility of banks, and the consequent need for regulation, as well as the evolution of banks' activities in recent years.[23] Consider first Figure 1, which shows the balance sheet of a "traditional" bank such as a small building society. Assets are liquid assets and illiquid loans, while liabilities are retail deposits. The difference between assets and liabilities is the bank's capital. The key feature of banks which leads to fragility is the mismatch in maturity of assets and liabilities. Because customers usually only require withdrawal of funds on a random basis, the bank can survive with low levels of liquid assets (cash, short term government bonds) and invest other monies in higher yielding but illiquid long term loans, while providing "liquidity insurance" – the promise of full redemption - to deposit clients at all times (Diamond and Dybvig 1983).

However, if the depositors consider that banks may be unable to pay them back, there can be a "run" when all depositors require funds at once. In this liquidity problem, which rapidly exhausts liquid assets, the bank is then unable to sell its illiquid assets for full value (due to asymmetric information – the "fire sale" problem) and becomes insolvent (as for Northern Rock). A bank can of course also become insolvent due to simple losses on assets in excess of capital (as for the Dunfermline Building Society). Then, bank runs can become contagious across the system if customers consider banks to have similar balance sheet weaknesses (which cannot be detected precisely due to asymmetric information) and/or counterparty links to the failing bank.

Figure 1: "Traditional" bank

Assets	**Liabilities**
Liquid assets	Capital
	Retail deposits
Illiquid loans	

Bank regulation is a way to reduce risks in this simple framework. Capital adequacy regulation ensures that the level of capital is sufficient to cover expected losses due to loan defaults in a downturn. Liquidity regulation seeks to ensure that liquidity can be accessed sufficient to cover peak demands for deposit withdrawals. And when liquid assets are inadequate, the Central Bank as lender of last resort is a provider of liquidity to the bank, at its discretion, so as to meet demands for redemption. Deposit insurance usually run by Ministries of Finance, seeks to prevent runs from occurring by giving depositors a guarantee of the nominal value of their assets.

The key changes to this framework that are relevant to developments in recent years are, first, deregulation that has typically removed previous limits to competition between banks, and

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[23] The author has used this analysis in a number of talks in churches and to men's groups.

hence put greater weight on the remaining prudential regulations. In the UK, deregulation has entailed, for example, the entry of banks to the mortgage market, growth of investment banking activities by commercial banks and scope for building societies such as Northern Rock to demutualise and become banks. Second is the growth of wholesale financial markets (generally short term borrowing from other banks, money market funds, corporate treasurers and other investors) offering an alternative to retail deposits for banks' funding needs. Most banks that failed in this crisis had large wholesale funding needs. The third is the development of securitisation, so banks no longer need to hold loans on balance sheet, but can instead package and sell them to other investors, benefiting nonetheless from the sizeable front-end fees from loan origination. Securitisation and wholesale markets stem in turn from the development of information technology and globalisation of financial markets.

Figure 2: "Modern" bank

"On balance sheet"

Assets	**Liabilities**
Liquid assets	Capital
Illiquid loans	Retail deposits
Illiquid securities	Wholesale deposits

"Off balance sheet"

Loans being securitised	Illiquid securities

Illiquid securities in SIV/conduit	Asset backed commercial paper with bank back up line of credit

The "modern" bank (Figure 2) such as current UK clearing banks can be seen as a response to these developments that also seeks to maximise profitability by all possible means. Liquid assets are hence reduced to the lowest possible level given their lower return than other assets. Capital is equally held only at the level required by supervisors. In order to grow the balance sheet faster than is feasible with sticky retail deposits, the bank takes on a considerable volume of wholesale funding ("liability management") although such funding, typically not being covered by deposit insurance and held by well-informed investors, is much more subject to runs than retail deposits. Meanwhile, loan growth can be extended beyond that feasible given capital and deposits by ongoing securitisation of loans.

Following the Basel 1 agreement in 1988, capital adequacy is counted on a risk-weighted basis. This gives an incentive to hold a proportion of highly rated securities on the asset side if they are also high yielding. The products of Securitisation, which we call ABS (residential mortgage backed securities and especially higher-rated tranches of collateralised debt obligations) could provide AAA ratings and high yields and hence proved attractive to banks. However, their opaque nature made them relatively illiquid compared with other types of securities, and the ratings turned out in retrospect to be excessively optimistic. The modern bank might also run special investment vehicles or conduits, forms of subsidiary designed to hold similar securities financed by asset backed commercial paper, where the bank profits from the difference in yield between them. The bank might nonetheless have an obligation to the subsidiary if it got into difficulty, due to reputation reasons or due to back-up lines of credit.

Regulation of the modern bank is clearly more complex, although the same principles apply. A key issue is liquidity regulation, that needs to consider the risks of wholesale funding as well as low liquid asset holdings. But equally, capital adequacy needed to take account of the more complex risks implicit in the new structure that banks adopted. With securities held as assets, losses can arise for falls in price in the market as well as defaults by borrowers.