Paradigm for a Riba-free Economy

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Abstract: The world’s political and economic tectonic plates are shifting. The old paradigm of mainstream neoclassical economics is collapsing. Paradigmatic revolution is in the air. But what form should paradigmatic revolution take? Western 'free market' finance capitalism is the main cause of present problems and so must be rejected: and also rejected is communism/socialism which abhors Allah, is politically oppressive, and is materially inefficient. The answer lies with genuinely independent nations which have economies free from riba. These new economies will possess their own money supply and will not rely upon financial capital coming from abroad. Eschewing riba-interest (and interest-equivalents as in forms of Islamic banking), they will be based upon the use of national bank-issued interest-free loans which can be administered by the banking system (imposing only a charge for administration). These loans are for the development and spreading of productive (and associated consuming) capacity to every individual in society. The result is a proper balance of supply and demand (as is required by Say's Theorem) and a forwading of social and economic justice. The new economics also founds new political, social and environmental solutions.
1. Introduction

As this paper is written, the shifting of the world's political and economic tectonic plates is causing tremors, earthquakes and awesome volcanic eruptions spewing ash over large areas.

Sniffing the air, people sense that the world is changing and, such the scale of the change, are asking why today's political and economic theories do not seem to explain the facts. Moreover, ruefully reflecting that future eruptions could be even more awesome, they are even wondering if those theories have any relevance whatsoever.

Indeed, we stand at a cusp of history where it is certain that what is to come will have little connection with what came before. For the truth is that we are witnessing the collapse of the old economic and political paradigm while, at the same time, coming into being are the incipient stages of the new paradigm which will eventually replace the old.

However, 'eventually' could be decades and the human race cannot afford to wait that long. Moreover, in the meanwhile, it is possible that, an incomplete, even corrupted paradigm could replace the old, failing, one, with disastrous consequences, including fascism.

Furthermore, as yet, it is far from certain that the Islamic ummah has completed the intellectual and psychological steps which are the necessary for the successful development of the new paradigm. Nevertheless, the authors of this paper (one of whom is not a Muslim) believe that, unless the new paradigm develops from, and within, Islam, it will not develop at all. It is therefore important that the ummah seize the present opportunity and, for the future good of the world, work hard to bring the new paradigm into existence.

1.1. On Paradigms

A paradigm is the basic mental framework which organizes experience and information. It is a mindset, a set of connections, an understanding of reality. Paradigms decide what is, or is not, important; and what does, or does not, happen. Individuals, groups and societies have paradigms. Thomas Kuhn defines paradigms as:- *Universally recognized scientific achievements that for a time provide model problems and solutions to a community of practitioners.* Thus a paradigm is the intellectual model that scientists hold about a particular area of knowledge. Normal science is the solving of problems and puzzles within the model.¹

1.2. Normal Science and Scientific Revolutions

However, such models are not permanent. Science does not progress in an orderly, linear fashion and so Kuhn distinguishes between the paradigms of frequent

¹ *The Structure of Scientific Revolutions* (1962).
everyday science and those of infrequent scientific revolution. Normal science is a cumulative process which, says Kuhn, "Owes its success to the ability of scientists regularly to select problems that can be solved with conceptual and instrumental techniques close to those already in existence."

In contrast, scientific revolutions are "Those non-cumulative development episodes in which an older paradigm is replaced in whole or in part by an incompatible new one."

A paradigmatic revolution (or paradigm shift), therefore, is not just a newer way of looking at the world but is also something which results in wholesale reorganizations, transformations and changes in rules and structures. Kuhn graphically remarks that "It is rather as if the professional community had been suddenly transported to another planet where familiar objects are seen in a different light and are joined by non-familiar ones as well."

1.3. Resistance to Paradigm Shift and Time in Gestation

However, there is always resistance to paradigm shifts. Moreover, the shifts can be a long time in gestation. Thus Copernicus wrote in 1542\(^2\) but it was only in 1687 that Isaac Newton was to initiate acceptance of the idea that the Earth is not the centre of the universe.

And when, today, we learn of disasters caused by earthquakes, volcanoes and tsunami, we should remember Alfred Wegener who died despairing that his supposedly rational colleagues would ever recognise what was obvious to anybody with a minimum acquaintance with the facts. Wegener first put forward his Earth crust theory of moving tectonic plates in 1915. He backed the theory with evidence from many sciences including biology, geology, physics and zoology but his fellow scientists just laughed at him. It was not until 1964? when ships were able to record the patterns of magnetic stripes in rock under the oceans? that Wegener's theory was at last accepted.

1.4. A Non-cumulative Developmental Episode

All of which puts us in a position to understand what really happens when a shift is made from an old paradigm to a new one. Firstly, the structure of the old paradigm has had generations of facts piled onto its basic dogma and the more the facts are piled on, the harder it is to see what lies beneath. However, while the old structure, as it gets ever larger, may tend to have the superficial appearance of successful bit-by-bit addition, in reality, stress is building up. As the stress increases, accompanied by creaks, trembles and judders, upholders of the existing truths become ever more rigid, ever more dogmatic? and ever more ridiculous? as they attempt to prop up a toppling structure based on false assumptions.

\(^2\) On the Revolution of the Celestial Spheres.
The old structure then collapses and is foundationally replaced by the new. Thus when the new and better paradigm comes along it is, as Thomas Kuhn states, "A non-cumulative developmental episode in which an older paradigm is replaced in whole or in part by an incompatible new one." The word 'incompatible' should be noted. It means that the new paradigm and its associated consequences cannot be fitted in with the old one.

2. The Fifty Three False Assumptions of Mainstream Neoclassical Economics
The paradigm of mainstream neoclassical economics has come to dominate modern political and economic thinking and practice. In essence it states that the 'free market' is History Perfected; that no substantial improvement is possible; that everything in economics returns to balance; and that all the outcomes of the 'free market' are materially efficient and just.

However, the existing paradigm is corrupt, failing, outdated, and ossified. Indeed, an astonishing fifty three false assumptions which underlie mainstream neoclassical economics have been identified. These false assumptions are basic things believed to be true or taken for granted as inevitable or sensible but which, like the idea that the world is the centre of the universe, are false. This is a matter of considerable importance because if only one assumption is false (or, at the most, two or three assumptions are false) then the whole paradigmatic structure of mainstream neoclassical economics becomes invalid.

Furthermore, the new paradigm (for genuinely independent nations having a riba-free economy) then becomes easily understood if the fifty three false assumptions are, one by one, reversed. Soon, maybe after only two or three reversals, it will be seen that a different landscape is coming into view and then, long before all the false assumptions have been reversed, it will become brightly clear that a totally new landscape? the paradigmatic panorama of the efficient, socially just, riba-free economy? has emerged.

2.1. Effects of the Fifty Three False Assumptions
The practical effects of the fifty three false assumptions are such that the Western system of finance capitalism is collapsing; economic power is shifting largely to the East; rich-poor division has increased; and unemployment is high. Moreover, food prices are rising; the USA is losing its moral and political leadership; and there is yearning for a more ethical politics and economics. Furthermore, events are revealing Western hypocrisy in claiming to be democratic while, at the same time, supporting corrupt, tyrannical, torturing regimes.

In addition, the position of the USA has become disastrous. Unemployment is over 20%; forty four million people are on 'food stamps'; millions of people have lost, or are losing, their homes; and debt levels are out of control. Indeed, is it the

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4 See www.binaryeconomics.net
level of debt - government debt, city debt, corporation debt, personal debt - which is the main problem and it forever gets worse because basic mainstream doctrine is that debt (interest-bearing, compound interest debt, lent for any purpose) is a good thing and the more of it, the better.

The West's financial system is now in trouble because, trying to find a way out of the morass, it is not only creating huge amounts of low interest loan money (which is NOT being directed at the development and spreading of productive capacity to every individual) but is also printing large amounts of debt-free money in a process deceptively called 'quantitative easing'. All of this has implications for future inflation and it greatly encourages, cheap, easy speculation in basic commodities such as food, thereby immediately raising their prices.

And, in addition to very high levels of unemployment, rising food prices are the cause of widespread unrest which will not be confined to the Arab societies. When the prices of foods rise, poor people are immediately stressed. In a world where 55% of the population live on under $3 per day, food and fuel expenditure is always a high percentage of income - perhaps in the range 60% to 80%. Whereupon any rise in food prices immediately creates a situation in which people begin to starve. Thus all the billions of poor people in the world, every day having a borderline existence, are now being forced to act. Their urgent need then coincides with the anger of the middle classes enraged by political suppression, various forms of personal humiliation, colonialism, and the lack of a true national independence.

Significantly, the West has no solution to these ills. Indeed, hubristically believing that it represents a Perfection of History so that nothing can be bettered, the West is embarking on war against any peoples or nations (particularly if they are Islamic) which dare to query existing economic and political theory, or to protest, or to exhibit independence.

2.2. The Key False Assumption - that Interest is Inevitable and Necessary
All of the identified false assumptions invalidate the claim that mainstream neoclassical economics is a science in touch with reality. However, there is one false assumption which invalidates the claim more quickly than do any of the others. This is the assumption that interest is inevitable and necessary and it is contained within the wider false assumption that, when the banking system creates money out of nothing, lends it and adds interest (as well as administration cost), the result is a magical furtherance of both efficiency and justice? which most certainly does not happen in practice.

5 At $13.5 trillion, the USA's government debt is nearly the same as the Gross Domestic Product. The government debt works out at around $14,000 per citizen but unfunded liabilities take that figure up to $40,000. To which must be added individual, local government, town, city and State (in USA) debt. And all this happens in an allegedly 'free market' society in perfect equilibrium!

6 When debt gets too high, banks stop lending (for fear of losing the loans) and the money supply begins to contract. Soon, unemployment begins to rise — the USA government says the figure is around 10% but, in reality, it is at least 20%-22% with much higher percentages among black Americans and youth. In Spain the official unemployment level is 20%, with 40% among young people aged 18-25. In Italy it is 28% among a similar age group — tellingly, 80% of new employment contracts for people in this group are temporary ones.
However, as is well known, riba/interest is abhorrent to Muslims? and for good reason because it is antipathetic to efficiency and justice and is the method by which finance capitalism and the global banks can, and do, rob individuals, countries and continents. So is interest necessary and inevitable (as claimed by mainstream economics)? Can there be a new paradigm which achieves an economy without (or largely without) interest? These questions are asked because the sad truth is that, nowadays, every part of the world? which includes Islam? is deeply infected and corrupted by riba. Just as Christianity and Judaism were corrupted, so modern Islam, with some genuine exceptions, is largely corrupted as well.8

The problem is serious because young people and university students are taught that the imposition of interest is necessary. However, the weasel qualification is always made that interest rates must not be too high because that is usury (and, in the West, usury is defined not as the imposition of any interest but rather as excessive, unreasonable, unfair interest).

Yet the truth is that all interest (and not just excessive interest) is usurious.9 And its effects are disastrous. In essence, interest gives an ever-increasing financial benefit to the lender. A charge for doing genuine administration work is necessary but, in contrast, interest is not necessary because, in reality, it is merely a continuing charge (or 'tax') in addition to administration cost and the need to repay the principal of the original loan. Interest attaches itself to a debt and creates recurring charges in a way which is distinct from administration cost (although the distinction is always masked by linking administration cost and interest together). Whereas an administration charge is only fairly imposed when administration work is done, interest is imposed whether or not administration work has been done and whether or not a charge for possible loss of the principal is being made.10 Thus the true purpose of interest is obvious? to give an ever-increasing financial benefit to the lender.

7 The process of creating money out of nothing takes place primarily in the banks. The Federal Reserve Bank of Chicago states: "The actual process of money creation takes place primarily in banks." In the UK, for example, 95% or more of new money is created out of nothing by the banking system which does it very simply — by pressing computer buttons. Indeed, all around the world today, money is created out of nothing by the banking system which creates most of the money as loans to which a demand for interest (beyond justifiable administration and any other essential charges) is attached. Sir Josiah Stamp, director of the UK Bank of England 1928 - 1941, stated: "The modern banking system manufactures money out of nothing." Moreover, the famous American economist JK Galbraith has said: "The process by which banks create money is so simple that the mind is repelled. . . . It is, moreover, one that is almost breathtaking in its audacity."

8 Islamic Economics, Islamic Finance and, in particular, Islamic Banking, generally either do not discuss, or are ambivalent about, or obfuscate, the subject of riba/interest. This is usually done by devising legal contracts which do not appear to have riba at their core but which, in practice, are riddled with riba. It is not generally understood that, apart from genuine administration cost, riba/interest is an addition to the repayment of the principal and, disguising that addition (through various legal contracts) as rent, or 'profit' or 'partnership' benefit, is disingenuous, even dishonest. In previous times, ordinary Muslims, not wanting to be involved with interest, were in effect excluded from banking services. The huge growth of Islamic Banking over the last thirty years is because Islamic Banking can purport to be not involved with riba/interest while the reality is that it is involved with interest although the interest is hidden by legal devices.

9 Of course, the usury is cunningly disguised in various ways. One way is by lumping in the interest with the administration cost. Another is by pretending that modern bank money is an existing thing rather than something which, in reality, is conjured out of nothing by the pressing of computer buttons. A third way is by subsuming the imposition of interest within the hallowed (and very false) doctrine of mainstream neoclassical economics which says that the (alleged) 'free market' qualities of freedom, equilibrium, fairness and efficiency are all due to modern banking practice.
Moreover, internationally, the effects of compound interest are such that whole societies are trapped into an ever-increasing debt which they can never repay, and the attempt to repay in practice results in their economic resources being ripped off to outsiders. That is the situation when interest-bearing money is lent to poor countries. By a process of bamboozlement the poor countries of the world are told a complete lie that they can only borrow from abroad and that the borrowing must be at compound interest.

Furthermore, the creditor countries today do not give some form of debt relief with the object of eliminating interest-bearing loans. Rather they give the relief (often on tortuous conditions so that, in practice, the relief is minimal) to ensure that heavily indebted countries, although on their knees, are still able to continue paying the interest on debt.

Then, nationally, interest often compounds so as to make repayment of the original loan completely impossible. This is particularly the case when money is lent for a long period e.g. in the UK for the construction of the Humber Bridge. Starting at £28,000,000 (with some price rises), compound interest eventually took the cost to £439,000,000!

Indeed, interest is a giant sucking mechanism which draws up wealth from the poor and transfers it to the rich. Generally, the cost of interest causes 80% of the people to pay out much more than they receive; 10% are in balance; and the last 10% receive very much more than they pay out. Moreover, the social consequences of interest can be horrific e.g. in India 15,000 farmers commit suicide each year or have to sell one of their kidneys.

On top of which interest prevents clean water and clean electricity generation. Every day in the world, 25,000 people die from the effects of dirty water. Yet clean water supplies and effective sewage systems use well-established technology but, with interest-bearing money, they are financially unviably.

And it is the same with clean electricity generation: in the UK one project alone the barrage across the river Severn would generate 10% of the nation’s electricity needs. Yet, because interest-bearing, rather than interest-free, loan money would be used, the project is not financially viable.

Another example is the need for environmental capital projects such as a mangrove-crested sea barrage. Such things rarely, if ever, get constructed when the system always requires interest-bearing money.

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10 The fair costs of administration can include an element of ‘standing charge’ for maintaining an account and having somebody available to administer it when necessary. There can also be an element protecting against possible loss of principal. However, there is no justification for high interest when, in many cases, the fair administration charge is under 1%.

11 Margaret Kennedy (1995), Interest and Inflation-Free Money. Within a country — e.g., Germany — the effects of interest are complex. Thus in the city of Aachen interest on capital is 12% of the cost of rubbish collection; 38% of the cost of drinking water; 47% of the cost of sewage; and up to 77% of the cost of public housing. Moreover, between 1950 and 1989 German Gross Domestic Product increased twenty two times, but interest paid on the national debt increased seventy five times!

3. A Nation's Independence is Paramount

A nation's independence is paramount. All nations should be independent. This was well understood by Imam Khomeini who was opposed to despotic and colonial powers? he wanted freedom from the West, and freedom from dependency on the West. The Imam said:- "We want our country to be independent in every respect. Hence, for the satisfaction of God, we must pursue this matter so that not only our country but all the peoples of the world will be independent."¹⁴

National independence has two broad aspects:

a) freedom from foreign oppression i.e., whether the nation is controlled or influenced by foreigners, in particular, by the international banking system

b) freedom from internal oppression i.e., whether the nation is oppressed from within

In both cases the oppression is stimulated by, or facilitated by, or caused by whoever controls the money system and so is able to exercise control over individuals and institutions.

3.1. Freedom from Foreign Oppression

This matter is simply stated. If a nation wishes to uphold its independence, foreign money should NEVER be borrowed. A nation should always use its own money supply (which starts in the national bank) rather than allowing the supply to come from the international banking system. If money is borrowed from abroad nations are soon ripped off, in various ways, by foreigners.

3.2. Freedom from Internal Oppression

Yet there is an oppression greater than that from abroad ? the oppression from within. This happens when, as is the case today, the society's structures and practices are such that the bulk of the population are denied access to, or denied adequate access to, productive (and associated consuming) capacity. This happens when control of the money supply, as today, is in the hands of those who have no concept of, let alone desire for, the development and spreading of productive (and associated consuming) capacity to every person in society.

3.3. Gold and the Money Supply

The basic case for gold is that it cannot be inflationary. It is also claimed that gold focuses on the real economy although, in practice, it concentrates the economy into only a few hands rather than (as is required by Say's Theorem) spreading it widely so that producers and consumers become the same people.

¹³ Interest-bearing money creates inflation, indebtedness, greed and endless frenetic activity in the endeavour to try to make repayment. Worse, the system favours the short term destruction of natural wealth rather than its long term maintenance. Tarek el-Diwany, *The Problem with Interest* (2003).

Indeed, gold by itself results in rich-poor division with those owning the gold having the power and there is then only zakah available to ameliorate the division. Zakah, however, is only an ameliorating charity and does not represent a structural solution to poverty.

Yet, those things said, not only its it true that gold cannot be inflationary but, in fundamental way, gold represents a challenge to Western 'fiat' money (which is aimed at anything and everything not concerned with the real economy) and so gold is sometimes thought to be capable of forming the basis of a paradigmatic challenge to Western hegemony.

However, it is the view of the authors that, at the First World Conference on Riba (in 2010), former Prime Minister Mohammed Mahathir had the agreement of Conference in rejecting physical gold as a solution and, instead, advocating a gold-backed money supply. Such a supply would not be inflationary and, at the same time, it would have the flexibility necessary for developing and spreading the real economy to every person in society. This would be done without interest because the ultimate source of the supply is coming interest-free from the nation’s national bank (rather than from the private banks which insist on having interest in addition to administration cost).

The authors wish to further point out that, if the real economy is properly developed by being spread to all individuals in the economy (as this paper proposes), then there would be no need for gold backing of the money supply. This would be because the lent money, having (interest-free) done its work in developing and spreading productive capacity, the money is returned to the national bank and cancelled leaving behind in existence the physical capacity, but not the money. The result is counter-inflationary (which is not deflationary).

4. A Riba-free Economy

An independent nation, whose economy embodies efficiency and social and economic justice, is possible if, at its core, there is a genuinely interest-free, i.e., riba-free, money supply.

In circumstances in which the banking system is restrained from creating new money, the 15 basic mechanism for creating national independence and implementing a modern, riba-free economy is the use of national bank-issued interest-free loans, administered by the banking system (which may make a genuine charge for administration but may not charge interest.) The loans are directly related to the real economy, made repayable and, when repaid, are cancelled or cancellable thus ensuring that productive assets always back a society’s currency.

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15 The restraint is done by a gradual rise to 100% bank reserves. Banks may lend their own money and, with permission, that of depositors, but they may not create new money (which can only be done, interest-free, by the national bank).

There is nothing new in 100% banking reserves. It was proposed by Simons and Fisher in the 1930s and supported by Milton Friedman. Today, the Governor of the Bank of England and the Austrian school of economics are of a similar view. However, none of them proposes the use of the national bank-issued interest-free loans supply for the development and spreading of productive (and associated purchasing) capacity to every individual in society.
Crucially, because interest is not necessary, the loans allow capital projects to be constructed for one half, or one third, or even less, of the present cost. Moreover, the loans cannot be inflationary; they must be repaid and, when repaid, are cancelled thus leaving the assets behind in physical existence.

NB. All true riba-free uses of the money supply, spreading productive capacity to all people in society, should be interest-free.

4.1. Basic Mechanism for, and Uses of, Riba-free Loans
In the case of public capital projects (e.g., roads, bridges, hospitals, schools, waterworks, fire stations, sewage works, etc.) the mechanism for the loans is simple: the national bank creates interest-free money and then lends it to the government for the purposes of the government’s own capital expenditure. Money for repayment is collected, as at present, out of fees and taxes with the difference that the amount required to be collected would be half, even a quarter, of the usual amount.

Interest-free loans for public capital projects have been used by the Channel Island of Guernsey. Guernsey has minimal national debt. Malaysia is believed to be experimenting with such loans and, of late, has achieved some remarkable feats of public construction. Over the period 1939 - 1974 (a prosperous period) Canada used the loans and, today, many Canadian municipalities are demanding their use again to upgrade poor infrastructure. After 1935 New Zealand used such loans for hydropower schemes, railways, state housing etc. and had a remarkably prosperous period. In the late 1940s Taiwan used binary mechanisms to spread ownership of farm land without harming the rich.

For the private sector, the central bank lends interest-free money to the banking system which then administers it on market principles including the existence of collateral, ability and intent to repay, and effective spreading of the real economy to as many people as possible. In the case of large corporations, the key condition for the use of interest-free loans is that the investment is associated with the creation of new shareholders thereby distributing the ownership of new capital assets throughout the population.

Thus the essence and rationale of the riba-free loan mechanism is that, as long as the money is lent for defined productive purposes including wide ownership, the government and the commercial banks should be able to administer a supply of interest-free money (from the central bank) to be lent, interest-free, to satisfy those purposes.

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16 The public capital projects need not be built by the government. If wished, they can be built by the private sector, and managed by the private sector.
The purposes in the private sector divide into four main areas:

- **Micro-credit**
  The Grameen Bank (which has a 98% repayment rate) could receive interest-free money, lend it on to its usual clients and then repay the money to the central bank thereby halving the effective borrowing cost to the clients. Other micro-credit organisations could similarly halve the costs of borrowing for their customers.₁⁸

- **Small businesses and small farms**
  When small or start-up businesses, including farms, have to borrow interest-bearing money, the chances of their survival considerably diminish. But interest is not necessary when money is put into productive capacity, as in a small business. There is no need for a small business to be burdened with the crushing burden of interest-bearing debt.
  As long as there is scrutiny to ensure that the small business has a viable proposal and there is appropriate provision for collateral and administration cost, there is no reason for there to be interest at all.

- **Medium size corporations**
  Interest-free loans should also be available for medium-sized companies and corporations if the loans are associated with the widening of ownership. However, unlike large corporations, medium-sized corporations would not be required to make a full payout of earnings (except for reserves for research, depreciation and development), so that they would have the option of expanding via retained earnings.
  Once the interest-free loan is accepted, however, full payout of earnings would be required in future.

- **Large corporations**
  The interest-free lending to large corporations is allowed only if the investment creates new owners of capital and is part of policy to enable all individuals, over time, on market principles, to become owners of substantial amounts of productive capital.₁⁹ By using central bank-issued interest-free loans, administered by the banking system on the market principles of true Islamic riba-free economics, a large corporation would get cheap money. Wide ownership on the principles of true Islamic and binary economics?₂⁰ uses interest-free money to enable any person in the population, over time on market principles, to have a basket of shares paying out their true, full earnings.

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₁⁸ On a visit to Bangladesh, one of the authors of this paper was told by officers of a large and successful micro-credit organization that, with a supply of interest-free loan money, they could halve the effective cost to borrowers.


₂⁰ Robert Ashford & Rodney Shakespeare, Binary Economics – the new paradigm (1999)
Petrochemical organisations are often large corporations which should have interest-free loans for their expansion. However, such loans, being interest-
free would quickly result in a greater concentration of ownership in existing
shareholders. It is therefore recommended that the interest-free loans for
large corporations should only be allowed if, on the principles of binary
economics, new shareholders are created. Of the many advantages, the
main one is that productive (and associated consuming) capacity will be
spread throughout the economy thereby enabling a balance of supply and
demand (as is required by Say's Theorem) and, at the same time, a
forwarding of social and economic justice. In short, interest-free loans
should be available if they result in wide capital ownership.

4.2. Incomes for All
In the modern, riba-free economy all individuals have a proper income. Apart from
ownership in small businesses and the income which comes from labor work, wide
capital ownership (in which the capital pays out its full return which would be five to
eight times existing returns) is the crucial way for enabling all people to have an
independent income, a continuing income, throughout their lives.

Mothers with children are therefore able to bring up their children without
financial pressure. Even small children have an income, sufficient for basic need.
At the age of five the income increases to allow for payment of basic school fees,
with increases at eleven and sixteen. Thereafter the income stays with the child
(now an adult) as part of the increasing adult competence which comes from an
independent capital estate.

4.3. The Competence
The competence (the word can be traced back to Jane Austen, Alexander Pope and
William Shakespeare meaning property or means sufficient for the necessaries and
conveniences of life; sufficiency without excess) is defined as:-

   a capital estate large enough to supply sufficient current consumer income to
   support at least one half of an affluent life style (measured in the context of what
   society as a whole can efficiently produce).

Figures contained in a 1998 study by Northeast Ohio Employee Ownership Center,
Kent State University, Ohio and a 2005 study from the Center for Economic and
Social Justice, Washington, D.C., indicate (2005 figures) that, aged sixty five, an
adult would have a binary income of about $26,000 and a capital accumulation of at
least $200,000 with both figures continuing to increase after the age of sixty five.

In practice the competence means that not only employees but people not in
formal employment (e.g., women, carers and children) may have an income
because they have been connected to what truly creates wealth? the productive
capital assets of large corporations. This is important because the spreading of
capital ownership and its associated income will, over time, enable all members of
society to have a basic income independently of whether or not they are in the
conventional labour market. Thus all people become productive and so have the
income that comes from their production (as capital owners) thereby enabling them
to be consumers.

However, a key condition for the use of interest-free loans is that the
investment must always be associated with the creation of new shareholders thereby
distributing the ownership of new, future capital assets throughout the population.\(^{22}\)
The assets pay for themselves out of what they will earn in the future.

### 4.4. Other Uses for Riba-free Loans

Of course, green capital investment is essential and a good example is the
construction of mangrove-crested sea barrages to protect against erosion of the land.
But, at present, using interest-bearing loans, most green capital investment is not
possible. With interest-free loans, however, such investment would become viable.

Moreover, it is vital to have clean, renewable energy? e.g., electricity created
by tidal barrages, tidal lagoons, underwater turbines, wave machines, dams,
windmills, solar electricity, and geothermal power stations.

A good example of what is possible is the Severn River barrage project in the
United Kingdom. This project has been planned for decades and is capable of
generating 10% of the UK's needed electricity. Moreover, the technology involved
? concrete dams and turbines ? is not new.

So why has the Severn River barrage project not been built? The answer is
simple? if the UK government, in the usual way, borrows the money from the
banking system at interest, the length of time to build the project and the effect of
compounding interest makes the project financially unviable.

BUT if interest-free loans, created by the national bank, were to be used, the
project immediately becomes financially possible. Furthermore, the UK has many
sites around its coasts where similar projects (e.g., tidal lagoons and turbines in
underwater races) can be used. However, all of these admirable projects cannot
come into existence because the government refuses to allow its own national bank
to issue interest-free loans. In other countries, with interest-free loans, large-scale
solar generation is obviously possible.

\(^{22}\) Another key condition would be that all large corporations would be required to pay out all their earnings except for
reserves for research, depreciation and development. This requirement is necessary to ensure that:-
- corporations are encouraged to accept interest-free loans with the associated responsibility of widening ownership
  in the economy
- the loan is repaid at a competitive rate over a reasonable period of time
- the beneficiaries receive all the income coming from capital productiveness
- the entire economy is able to achieve sustainable aggregate growth and distributive justice on market principles.
It is also possible that loans for private (as well as public) housing be interest-free (making repayment one third of the present cost). Such lending would require loans of only 80% of valuation and there should be criminal penalties for deliberate false valuations and declarations of income.

5. Visual Summary of Modern, Islamic, Riba-free Economics

A gradual rise to 100% banking reserves requirement stops the banking system from creating money out of nothing. Banks may lend their own money or that of depositors (with permission) and such lending may be at interest.

NB. All the uses of national bank newly-created, repayable, money are to be riba-free.