ENHANCING CYCLICAL STABILITY BY INTEREST-FREE BANKING

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Abstract: Cyclical instability in the form of business cycles has been a bane of modern economies for decades. A major cause of business cycles is the introduction and utilisation of debt financing. Remedies based on the Keynesian paradigm provide only temporary stopgap measures that, while alleviating conditions in the short term only make the problem of instability worse in the long run. The main reason is that Keynes' analysis fails to trace cyclical instability to its real cause, which is financing spending – private as well as public – by borrowing. Accordingly, this paper argues that achieving cyclical stability requires replacing 'financing by borrowing at interest' with 'financing on the basis of risk sharing.' This can be expected not only to reduce not only cyclical instability, but to bring other benefits as well.

Introduction

A business cycle is a period of turbulence consisting of economic "ups" and "downs." It is similar to a roller coaster ride: a period of economic growth (boom) is followed by a recession or depression (bust).[1] As it brings uncertainty, instability is to be avoided. Business cycles affect entire nations, sometimes on a global scale. They affect different segments of society in different ways.

The growth (boom) stage of the business cycle is invariably accompanied by inflation. Inflation has adverse effects on the population, especially on the lower income groups; it reduces the standard of living by increasing the cost of living. Because it reduces the purchasing power of money, inflation acts as a tax, in particular as a *regressive* tax. In extreme cases, such as in the Weimar republic, inflation can result in social disintegration, raising the prospect of despotism. The bust stage of the business cycle, by contrast, is accompanied by unemployment and slow or negative growth. Recessions put some people out of work and reduce growth.

It is generally assumed that business cycles are unavoidable because they are caused by factors beyond human control. Consequently, the lack of success by governments in bringing stability to economic activity is seldom questioned. Factors commonly identified as causing these business cycles include fluctuations in aggregate demand, inventions leading to improvements in production, transportation or communication methods as well as the discovery and exploitation of natural resources. Other factors include changes in population, wars, and epidemics.[2]

A less well-known view is that business cycles are caused primarily by changes

in interest rates and the money supply.[3] When the money supply is reduced and interest rates rise, economic activity slows down. When the money supply expands, rates fall and economic activity accelerates. The reason is that much spending – including investment – is financed by borrowing. The cost of financing is a major cost of production.[4] An increase in the costs of production reduces the supply of goods and services, while a decrease in the costs of production has the reverse effect.[5] This is known as the "law of supply."

The view that interest rate volatility is a significant cause of business cycles attains special relevance from the Islamic point of view.[6] The reason is that *interest is proscribed in Islam*.[7] From the Islamic perspective, income can only be earned in exchange for a counter value (*iwad*) or at least in exchange for a willingness to share the risks of business enterprise.[8] Income can only be earned in the form of wages (for labour), rent (for leasing property or capital goods), and profit (for taking risk).[9] It can only be earned in exchange for a meaningful contribution to economic activity.[10]

The standard Keynesian response of spending one's way out of recession is no longer viable – if it ever has been – as it requires governments to go more deeply into debt, thereby making the problem of indebtedness worse.[11] The Keynesian paradigm falls short of diagnosing accurately the underlying cause of the cyclical instability afflicting the modern economy. It does not recognise that *the underlying problem is using interest as an incentive to motivate economic activity*.[12] It does not see that the fundamental cause of instability is the institution of interest and the fractional reserve system of banking which supports it, and not a lack of government spending.

Accordingly, this paper proposes transforming an interest-based monetary system into an interest-free economic system. In such a system, the problem of cyclical instability, as well as other problems caused by interest-based finance, can in principle be overcome: "unemployment, inflation, poverty amidst plenty, increasing inequality and recurrent business cycles … could be solved by abolishing interest and replacing it by profit sharing."[13]

Fluctuations in Interest Rates and Business Cycles

Empirical evidence confirms that booms are preceded by low interest rates, while busts are triggered by high or rising interest rates. This is generally not disputed even in the conventional discourse on the subject of business cycles.

In 1974, the oil-producing nations of OPEC nationalized their oil resources and quadrupled the price of oil, causing substantial inflation globally.[14] Efforts to contain inflation – which took the form of dramatically increasing interest rates – resulted in a global recession in 1974 – 1975. In the UK, for example, interest rates reached 13% by 1974 from a previous low of 5% in 1972.[15]

As a result of the recession, unemployment rose everywhere. In response, the US Federal Reserve initiated an "easy" monetary policy, with the intention of lowering interest rates.[16] Reduced rates helped to increase spending and thereby overcome the recession. However, they also paved the way for a new round of inflation, beginning in 1977. A second increase in the price of oil took place at the end of the decade and made inflation worse.[17]

In an effort to stem the double-digit inflation of the late 1970s, interest rates were again raised.[18] In 1981, nominal interest rates in the US peaked at 21 per cent. Real interest rates "reached an unprecedented level … the all-time high of 9.55% (per annum) in the second quarter of 1982."[19] The result was a wave of bankruptcies: "in 1983 the number of people who defaulted on their mortgages tripled."[20]

At the international level, a number of nations defaulted on their loans. Mexico defaulted in 1982. By 1983, 20 other nations defaulted and could only pay interest charges. "Essentially, the poor countries had become insolvent."[21]

Additional evidence of the effects of interest rate volatility is presented by the crisis of 2007. This was the first global downturn since WWII.[22] In July 2003, the federal funds rate dropped to 1 per cent and stayed there for a year.[23] A period of low interest rates was followed by a period of rising rates. Low interest rates were brought about by a dramatic expansion of the money supply. The expansion of the money supply was part of a long-term trend. In the eighteen year period "from January 1990 to April 2008, the United States M-2 money supply more than doubled from $3.2 trillion to $7.7 trillion."[24]

As a result of low interest rates prior to the crisis of 2007, borrowing and spending – in particular in the housing sector – took place on a large scale. To make matters worse, lending standards were lowered. Financial innovation in the form of debt securitisation facilitated the flow of large amounts of capital from institutional investors into the US subprime housing market.[25]

When reports about growing asset bubbles became widespread in 2005, monetary policy was reversed and interest rates began to climb. Homeowners had to increase their monthly repayments.[26] Due to their inability to make higher monthly mortgage payments, rising numbers of homeowners began to default on their mortgages. As the recession struck, the US government committed vast sums of money to support failing financial institutions. "Fearing that the global financial system would itself collapse unless drastic action was taken, the government committed about $12 trillion to support financial markets."[27]

Mainstream Analysis

Macroeconomic stabilisation policies since the Great Depression have been largely based on the Keynesian model.[28] This model, like other models, makes certain assumptions about how the economy works. Unlike the classical model, based

on the ideas of J. B. Say, the Keynesian model postulated that macroeconomic equilibrium can take place even at employment levels that fall significantly below full employment. This was demonstrated by the Great Depression.[29]

In a departure from the classical view, Keynes denied that the free-market system (capitalism) has the capacity to "correct" itself, or to restore full-employment equilibrium on its own, without external (government) intervention. In his view, left to its own devices, the economy is unable to recover by adjustments in prices, followed by adjustments in employment and output.[30] There is no point in waiting for the economy to recover by itself because, as Keynes famously noted, "In the long run, we are all dead."[31]

The legalisation of lending at interest saw the emergence of lenders. Lending at interest meant that, unlike before, it became possible to put a price on money itself. This "price" is known as *interest*. When the same lenders also began to borrow, they became financial intermediaries (banks). They borrow from parties with surplus funds (savers) and lend to parties experiencing a shortage of funds (investors). But this meant that capital would have to have *two* prices and not just one. One price (the savings rate) would be paid to savers, while another higher price (lending rate) would be demanded from borrowers (businesses). The difference between the two prices (interest rate "spread") would constitute the source of revenues for the shareholders of the financial institutions.

This duality of prices, however, means that no equilibrium can ever take place in the "money markets," as an equilibrium price is by definition a *single* price.[32] However, equilibrium between savings and investment would not be achieved in an interest-based system even if only one price prevailed. The reason why investment cannot become equal to savings even if one price of capital prevails is that so long as parties with surplus funds have the option of depositing their funds in financial institutions to gain guaranteed interest income, some businesses, specifically the less profitable ones, would remain without investment.

The fact that capital comes at a price disqualifies all businesses whose rates of profit fall below current lending rates from obtaining loan financing.[33] Even some businesses whose profits may exceed the lending rates will be disqualified, as the need to repay loans includes the need to repay the principal amount of the loan in addition to the payment of interest. Thus, merely earning a rate of profit that is higher than the lending rate does not guarantee that this profit will be sufficiently high to repay the principal amount of the loan too.[34]

Hence, as long as the rate of interest is higher than zero, not all savings will return to the real sector in the form of investment. Some savings will remain "trapped" within the financial institutions because they are too expensive for some businesses to borrow.

The money that remains "trapped" in financial institutions due to a lack

of qualified borrowers, or due to a lack of sufficiently profitable investment opportunities, constitutes a *surplus*. This surplus arises directly out of the fact that capital comes at a "cost" (interest), from the fact that the "price" of money is higher than its equilibrium price.

The equilibrium "price" of money is zero, because only at this price will all savings have an incentive to return into the real sector. The reason is that when no opportunities to gain interest income exist, even marginally profitable enterprises can be expected to attract some investment funds.

Because the equilibrium rate of interest is zero, fixing interest rates at any level higher than zero effectively turns that rate into a "minimum" rate. A minimum price causes an imbalance between supply and demand, in this case, between the demand and supply of funds. The supply of funds will exceed the demand. The result is a surplus of funds in the financial institutions. From an economic perspective, this surplus represents a waste, as funds are lying idle without being invested.

There is another reason why macroeconomic equilibrium is not likely to take place in a system that uses lending at interest to finance investment and other spending. The reason is that, due to the need to add interest to the repayment of all loans, financial institutions collectively always take more money out of the circular flow of money over a given period of time than what that they inject into it in the form of loans. Having to repay all loans with interest ensures that every borrower will always have to repay more than what he borrowed. This ensures that repayments (leakages) over a given period of time will always be greater than loans (injections).

Moreover, the excess of repayments over injections financed with borrowed money will have a *recessionary* effect, as more money is drained from the system than what is injected into it. Thus, over the long term, financing spending by borrowing has an effect that is opposite to its short-term effect. In the short term, financing spending by borrowing indeed stimulates demand. However, because new spending is financed mostly with "created" rather than earned money, the result of an increase in spending financed with "created" money is mainly inflation. Over the long term, by contrast, as borrowers have to repay their loans with interest, financing spending by borrowing has a recessionary effect.

To counter this long-term recessionary effect, more and more money is pumped into the system by means of bailouts that run into trillions of dollars, to keep it and indebted parties afloat. Bailouts are partly financed with "created" money, which comes into existence when central banks purchase impaired "assets" such as collateralised debt obligations or CDOs (bundles of bad loans) from financial institutions at taxpayers' expense.[35] This may restore some stability in the short run, but only makes the problem worse in the long term, as debts and the interest burden on those debts continue to pile up. Taxpayers are asked to make greater and greater sacrifices, public services continue to be reduced, all in order to repay

rising debt with interest to financial institutions.

The Keynesian response requires the public sector to compensate for a lack of private investment by increasing government spending. But this merely shifts the problem from the private sector to the public sector. The government may well solve the problem of disequilibrium in the private sector (a deficiency of investment spending) by increasing its own spending, but it can do so only by causing disequilibrium (deficit) in its own finances, caused by the need to increase its own spending beyond its tax revenues.

Moreover, public sector deficit spending adds to the national debt. Thus, the Keynesian response overcomes one problem (recession) only by causing other problems, in the first instance a government budget deficit and indebtedness.[36] What is worse, as governments also borrow from foreign lenders, public sector deficit spending produces an imbalance (disequilibrium) on the capital account of the international balance of payments, as inflows of funds on the capital account exceed outflows.[37] The excess of inflows over outflows raises the value of the currency in relation to other currencies, thereby reducing exports and increasing imports.[38] This creates a second imbalance, this time on the current account, as payments for imports exceed the payments for exports. Thus, it is clear that financing spending by borrowing money at interest destabilises economic activity in multiple ways.

Fractional Reserve Banking

Macroeconomic instability in a conventional economic system is not caused only by fluctuations in interest rates and the money supply. The primary source of instability is the system of banking and finance that makes lending money at interest possible in the first place. This system is known as the "fractional reserve system" of banking.

In the fractional reserve system of banking, financial institutions are permitted by law to operate with a mere fraction of their deposits in the form of cash. They use the remaining deposits to make loans and gain interest income. In other words, they are legally permitted to take risks with their depositors' funds.

The fractional reserve system of banking has a distinctly unique feature. It allows the financial institutions to expand the volume of credit far in excess of the money supply in circulation in the form of cash.[39] The expansion of the money supply takes place by making loans, through what is known as the "creation of money" process.[40]

It is of some interest that none of the money "created" and loaned was in existence before a loan is made. "Created" money comes into existence when loans are deposited in bank accounts. When loans are deposited in banks, the money supply expands, as the money supply is made up largely of bank deposits.

Of some interest is also the fact that none of the money "created" by means of lending has been *earned* by anyone, including in particular by the parties that borrow and spend the money "created" in this way. No new goods and services are produced in exchange for these newly "created" funds. The expenditure of funds that have been merely created rather than earned, however, has a profoundly destabilising effect on economic activity.

The expenditure of newly created money substantially increases aggregate demand in the short term, well beyond the capacity of the economy to keep up with rising demand for goods and services. As a greater number of dollars begins to "chase" the same number of goods, the first result is inflation. This is true in both the product as well as the resource markets, for both consumer as well as producer goods.

As a result of rising inflation, central banks begin to reduce the money supply and raise interest rates. With an increase in the cost of borrowing, spending declines. Declining sales and spending now cause disequilibrium in the opposite direction. As aggregate supply exceeds aggregate demand, inventories of goods begin to rise. In response, production is reduced and unemployment increases. This represents the bust stage of the business cycle. In response to the recession, interest rates are lowered again, and the same process repeats itself. It is in this way that the fractional reserve system of banking contributes to destabilising economic activity.

Since lending at interest presupposes the ability of financial institutions to lend their depositors' funds to borrowers, reform will require dispensing with the fractional reserve system of banking altogether. This can be accomplished by requiring banks to re-invent themselves as investment institutions. Instead of guaranteeing interest income to parties with surplus funds, they will offer profits from a well-diversified portfolio of investments. Investment can range from relatively low risk investments such as investments in commercial and residential property generating rental income, inclusive of shopping malls, to higher risk investments such as investments in new technologies financed by venture capital. For risk-averse parties, investment companies can offer deposit-keeping services, similar to transactions accounts, which will guarantee deposits but will pay no profits.

The financial institutions that currently operate on the basis of interest need to transform themselves into investment companies. They can do this by converting debt on both sides of their balance sheets into equity. Thus, depositors will become shareholders, while borrowers will become partners of the investment company. In contrast to the way it operated as a bank, the institution will now operate as an investment company. It will be required to share the risks of business enterprise with the entrepreneurs using investors' funds. As such, it will be able to guarantee

neither capital nor income to investors.

This will also be good news to governments and taxpayers, as in the case of poor investment decisions, it will be the shareholders of the institutions that will have to bear the brunt of the losses, not governments and taxpayers as is currently the case by means of bailouts of financially troubled institutions.

An interest-free financial system also requires a new – interest-free – economic theory. *The new economic theory and practice both need to be free of interest.* The new system needs to operate in a way that will utilise exclusively real-sector incentives (wages, profits and rents), to the exclusion of interest income.

In such a system, business cycles caused by fluctuations in the "prices" (interest rates) and volume of credit (money supply) can be expected to be significantly reduced. Phasing out the interest-based monetary system will ensure that surplus funds will be invested in the real sector. Moreover, it will ensure that all spending will remain within the limits imposed by current income and savings. For those still requiring loans, interest free loans (*qard hasan*) could be arranged.[41]

Interest-Free Monetary Policy

One argument against the implementation of an interest-free monetary system is that if lending at interest is phased out, and the issuing (and trading) of bonds becomes illegal, the central bank will have no way of regulating the money supply, as it will be unable to conduct open market operations.[42] Thus, in order to enable the central bank to exercise monetary policy, it is necessary to retain the interest-based banking, inclusive of financing by way of the issuance and trading of conventional, interest-bearing bonds.

However, the money supply can also be regulated *without trading debt*.[43] The magnitude of the money supply can also be regulated by buying and selling asset-backed securities. Such securities represent the ownership of assets. For example, instead of trading bonds, the central bank or rather a government investment company can buy and sell common shares or – in an Islamic monetary system – asset-backed *sukuk*.[44]

Additional liquidity can be injected into the financial system by buying shares or *sukuk* instead of bonds. Conversely, liquidity can be reduced by *selling* shares and *sukuk* instead of bonds. The effects on the money supply will be comparable to the effects of buying and selling government bonds, minus the harmful side effects produced by trading in debt. Moreover, trading shares or *sukuk* instead of bonds (debt) will not produce any of the harmful side effects caused by trading debt, in particular indebtedness and financial instability.[45]

The fact that the trading of shares and *sukuk* would affect the prices of these securities is not a cause for concern. After all, the trading of bonds under the current regime, also impacts bond (as well as share) prices. What is worse,

changes in bond prices translate into changes in interest rates, which impact the entire system, without regard to any differences in performance or efficiency. Strong performers are just as affected by rising interest as weak performers.

This would not be the case with changes in share prices caused by the trading of asset-backed securities by a government investment company, as changes in the prices of stocks would be largely confined to those actively traded. Indeed, changes in share prices that can be expected to result from such trading would help realise the specific objective of the government, whether it be to increase investment, or to reduce inflationary pressures, as the case may be.

There is nothing wrong with a government investment company participating in the trading of shares of public or private companies, especially if it is done in the public interest (*maslahah*). Such activity indeed helps to attain one of the central objectives of the Shariah, the realisation of public welfare. Purchases of shares or asset-backed *sukuk* merely represent a temporary "nationalisation" of productive assets, while selling them represents their "privatisation." At a time of crisis, governments already purchase the shares of financially troubled banks, as well as of other companies.[46] If governments or its agencies can buy shares in private financial institutions, surely they can also buy shares of other private sector companies.

The difference would be that the government investment company would buy asset-backed securities of healthy and profitable companies, instead of the bad debt of insolvent financial institutions.[47] The increase in share prices, arising from the purchases of shares by the government trading agency will provide incentives to such companies to increase investment.

In this way, rising share prices would produce precisely the effect desired by the government: an increase in investment. The incentive to private sector companies to increase investment as a result of rising prices of their shares will complement the efforts of the government to inject additional liquidity into the financial system – and thereby stimulate overall economic activity.

Conversely, the government may contain inflationary pressures by selling shares. Falling share prices, caused by sales of shares by the government investment company, will reduce the incentive to invest by issuing new shares, as companies are unlikely to obtain higher than normal prices.

From the point of view of Islamic law, buying and selling debt – except at par value – gives rise to *riba* or interest.[48] For this reason buying and selling of bonds, whether issued by governments or the public sector, is not an option in an Islamic monetary system.

Ownership of company shares or other certificates of investment (such as *sukuk*) by a government investment company need not be permanent. Should, for example, inflation become a problem, the trading agency would sell the shares

back to the private sector, and thereby withdraw liquidity from the system to reduce inflationary pressures.

Moreover, the fact that the money is injected *directly* into the real economy means that the effects of the trading of real-sector securities would be immediate rather than delayed, as is often the case when spending is financed by borrowing. Significant time lags pass when funds have to enter the real sector *via* the financial sector.

In general, there is no guarantee that borrowed money will be invested where it is most needed, in the real sector rather than used for the purpose of unproductive speculation. However, if entrepreneurs were to obtain funds by selling shares directly to the government investment agency, these funds would immediately be injected into the real sector. This is likely to stimulate economic activity faster and more effectively than any funds that first need to be borrowed at interest by real sector companies.

As a result, managing the money supply by buying and selling shares is both more effective and efficient than through the trading of bonds. This constitutes a strong incentive for the implementation of an interest-free monetary system, which uses only profit, wages and rents as incentives for rewarding productive activity.

Conclusions and Recommendations

We have seen that fluctuations in interest rates (and the money supply) constitute leading causes of boom and bust cycles. The ability of banks to "create" money and lend it at interest exacerbates macroeconomic instability. Low interest rates increase spending while rising interest rates reduce it. Each policy has harmful effects. A low interest rate policy causes inflation, while a high interest rate inhibits growth and may cause a recession.

Reducing cyclical instability caused by fluctuations in interest rates and the money supply can be achieved by adopting an interest-free system of finance. This requires replacing the fractional reserve system with an interest-free system.

The adoption of an interest-free monetary system can ensure that money will remain in the real sector and not be withdrawn from it at any time. Under the current system, whenever borrowers repay loans to financial institutions, funds are withdrawn from circulation. These funds remain out of circulation until they are able to re-enter the real sector when new loans are again used to finance spending. This withdrawal of funds from the real sector, no matter how temporary, has an adverse effect on economic growth.

Implementing debt-free financing can also ensure that businesses, households and even governments will not spend beyond their means. This will mitigate excessive spending financed by cheap credit or insufficient spending caused by expensive credit.

Replacing the interest-based monetary system with an interest-free system would ensure that the prime cause of instability – fluctuations in interest rates and the money supply – would no longer be a part of the institutional infrastructure of the modern economy. As a result, economic activity would become more stable.

To realise this objective, financial institutions as well as the central bank need to re-invent themselves as investment companies. Financial institutions need to become investment companies, while the central bank needs to become a "national" investment company.

Due to the prohibition of "earning" income in the form of interest, all companies will be compelled to operate in the real sector. As a matter of principle, equity financing is more conducive to enhancing systemic stability than financing by debt.[49]

Thus, it is advisable to restructure the current interest-based financial system to ensure that parties with surplus capital will only be able to earn income in the form of wages, profit or rent.

- An interest-based monetary system should be replaced with an interest-free alternative that requires financing on the basis of risk sharing.
- Financial institutions need to be transformed to operate in the real sector.
- Monetary policy should be conducted by trading shares instead of bonds
- Issuing shares and other equity instruments should be made easier.
- Tax breaks should be provided to firms raising capital by way of equity issuance.

Notes

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1. A recession is a period of negative economic growth for a period of six consecutive months or more. Negative growth signifies a declining overall output (GDP). Recessions signify higher levels of unemployment. They impose costs on society in that they reduce the standard of living, especially for the unemployed, and have other adverse effects such as a rise in poverty. Inflation affects everybody, according to his or her level of income.
2. The invention of the printing press, the steam engine, hydroelectric power, combustion engine, radio, television, telephone, and the computer all initiated long term cycles. See the Kondratiev theory of the business cycle.
3. Interest rates fluctuate in response to changes in the money supply, managed by

central banks through the exercise of monetary policy. An increase in the money supply results in a reduction in interest rates, while a decrease in the money supply has the reverse effect. Low interest rates trigger booms – including the rise of bubbles – while high interest rates have the reverse effects: they trigger recessions and busts.

4. In the developed countries, approximately two thirds of all investments is financed by borrowing.
5. An increase in the cost of production is graphically demonstrated in demand and supply analysis by shifting the entire supply curve to the left, thus indicating what is termed a "decrease in supply" or a decline in production.
6. Although some Muslim economists, such as Timur Kuran do not consider interest to be *riba*, the vast majority of Muslim jurists consider any amount of interest, however small, as tantamount to the *riba* forbidden in the Qur'an.
7. Al Qur'an, 2:275, translated by Abdullah Yusuf Ali.
8. Many civilisations in the past, including the Chinese, Greek and early Roman civilisations have outlawed loans at interest. See Shafiel A. Karim *The Islamic Moral Economy: A Study of Islamic Money and Financial Instruments*, BrownWalker Press, Boca Raton, 2010, p. 15, accessed online on 11 May 2014, <http://www.bookpump.com/bwp/pdf-b/9425394b.pdf>
9. A number of Muslim nations have been implementing Islamic banking and finance. See for example Sven Alexander Schottmann, "The Pillars of 'Mahathir's Islam': Mahathir Mohamad on Being-Muslim in the Modern World," *Asian Studies Review*, 35.3, September 2011, 355–VI, p. 359.
10. On the role of ethics in the Islamic economy see Ozay Mehmet "Al-Ghazzali on social justice: Guidelines for a new world order from an early medieval scholar," *International Journal of Social Economics*, Vol. 24 No. 11, 1997, pp. 1203-1218.
11. The Keynesian response to the problem of recession or depression is to "kick start" a stagnant economy by an infusion of liquidity in the form of an increase in government spending. The rationale is that governments need to compensate for a lack of spending in the private sector (investment and consumption). This is how the Great Depression of 1929 was overcome. On Keynes' advice, governments embarked on massive spending programs in the form of labour-intensive public works such as the construction of highways and dams. The rising incomes of households enabled them to increase demand for goods and services. In this way, an increase in demand (spending) resulted in an increase in supply (production).

    The Keynesian perspective assumes that the market system is fundamentally not "self-correcting," and therefore outside (government) intervention is required to restore full employment equilibrium. There is no reason to assume, according to Keynes, that market forces alone are powerful enough to restore full employment equilibrium, for example through an adjustment (in this case a reduction) of prices. This is due primarily to the "stickiness" of prices, including wages.

    Stated differently, the Keynesian perspective assumes that supply is a function of demand rather than vice versa. By contrast, in supply side economics (based on the ideas of J. B. Say) "supply creates its own demand." The supply side model was resurrected in 1980 by Arthur Laffer (the author of the so-called Laffer curve).

    The weakness of the Keynesian "remedy" is that if the increase in government

spending is financed by borrowing, an adverse side effect is an increase in the national debt. If the increase in government spending is financed by printing money (quantitative easing or the purchase of government bonds by the central bank), on the other hand, the undesirable side effect is inflation.

12. For an interesting account, see n.a. "Historical Overview of Usury," *Mission Islam*, accessed online on 19 May 2014; <http://www.missionislam.com/family/ursury_riba.htm>
13. Mohammad Siddiqi, "Islamic Banking and Finance in Theory and Practice: a Survey of State of the Art," Nejatullah *Islamic Economic Studies*, Vol. 13, No. 2, February 2006, p. 4.
14. Harry Cleaver, "Close the IMF, abolish debt and end development: a class analysis of the international debt crisis," *Capital and Class*, 2012, libcom.org, p. 24, accessed online on 13 Feb 2014, <http://libcom.org/library/close-imf-abolish-debt-end-development-class-analysis-international-debt-crisis-harry-cl>
15. n.a., BBC News Business, "Economy tracker: Interest rates," 17 September 2013, accessed online on 13 Feb 2014, <http://www.bbc.co.uk/news/business-11013715>
16. An "easy" monetary policy requires increasing the money supply. Monetary policy is normally implemented by conducting "open market operations." This refers to the process of buying and selling of government bonds by the central bank. In order to lower interest rates, it is necessary to increase the money supply. The central bank accomplishes this by buying government bonds such as Treasury Bills from banks. Purchases of bonds by the central banks increase the reserves of banks. This increases their capacity to make loans and thereby expand the money supply.
17. James Crotty "The Great Austerity War: What Caused the Deficit Crisis and Who Should Pay to Fix It?" Working Paper Series Number 260, Political Economy Research Institute, Amherst, Massachusetts, June 2011, p. 10, accessed online on 2 August 2013; <http://www.peri.umass.edu/fileadmin/pdf/working_papers/working_papers_251-300/WP260.pdf>
18. George J. Church "Ready for a Real Downer," *Time Magazine*, 23 November 1983, accessed online on18 July 2013; <http://www.time.com/time/magazine/article/0,9171,922689-2,00.html>
19. Real interest rates are equal to nominal rates minus the rate of inflation. Zhang, Yongli, "Fluctuations of Real Interest Rates and Business Cycles," Annals of Economics and Finance 11-1, pp. 185–208, 2010, p. 189, accessed online on 9 July 2013; <http://ftp.aefweb.net/AefArticles/aef110107.pdf>
20. Naomi Klein, *The Shock Doctrine*, Penguin Books, 2007, p. 159.
21. Ann Pettifor, *The Coming First World Debt Crisis*, Palgrave Macmillan, 2006, p. 108, 113. "Despite problems in repaying their debts in the 1980s, developing nations dramatically increased their borrowing during the following decade. While in 1990, they issued only $4 billion of bonds, in 1997 they borrowed $99 billion. By 2000, the level of low income country debt "was 150% higher than it had been in 1985." Ibid, p. 115.
22. Ihsanoglu Ekmeleddin, *Enhancing Economic Cooperation Among Muslim Countries – The Role of the OIC*, IIUM Journal of Economics and Management, 17.1 (2009), pp. 13-30.

23. Steve H. Hanke, "The Fed's Modus Operandi: Panic," Cato Institute, 18 March, 2009, accessed online on 15 July 2013, <http://www.cato.org/publications/commentary/feds-modus-operandi-panic>
24. M2 measure of the money supply includes cash plus demand and time deposits. French, Douglas E., in Rothbard, Murray, N. *The Mystery of Banking*, 2nd ed., Ludwig von Mises Institute, Auburn, Alabama, 2008, p. xii, accessed online on 8 June 2013; <http://mises.org/books/mysteryofbanking.pdf>
25. Debt securitisation is a process whereby retail loans (such as subprime, credit card, auto and student loans) are bundled together and sold wholesale in the form of new securities, for which the original loans serves as both collateral and source of income. Examples of such securities include the MBSs (mortgage backed securities) and the so-called "collateralised debt obligations" or CDOs. The defaults by borrowers on these loans played a central part in the recent global financial crisis of 2007.
26. Many subprime customers had adjustable rate mortgages, which meant that when market rates rose, they were required to increase their monthly payments accordingly. Many were not able to do so, as in some cases the required monthly payments more than doubled.
27. James Crotty, "The Great Austerity War: What Caused the Deficit Crisis and Who Should Pay to Fix It?" Working Paper Series Number 260, Political Economy Research Institute, Amherst, Massachusetts, June 2011, p. 16, accessed online on 2 August 2013; <http://www.peri.umass.edu/fileadmin/pdf/working_papers/working_papers_251-300/WP260.pdf>
28. The supply-side model made a brief appearance with the election of Ronald Reagan in the US and Margaret Thatcher in the UK in 1980. According to this model, stimulating economic activity should begin on the supply side of the economy, mainly in the form of lower taxes and reduced government intervention in economic activity.
29. The classical model provides the foundations for the supply side model.
30. Campbell R. McConnell and Stanley L. Brue, *Economics*, thirteenth edition, McGraw Hill Inc. 1996, pp. 335 – 336.
31. John Maynard Keynes, *Tract on Monetary Reform*, Prometheus Books, 2000, Ch. 3.
32. At such a "price," the amount of savings (over a given period of time) becomes equal to the amount of investment.
33. Inability to post acceptable collateral in order to guarantee the lenders' capital could disqualify even some businesses whose profit rates exceed the lending rates.
34. For example, a business that borrows money at 8% per annum would have to earn at least 14.5% of profit on the capital borrowed, in order to repay the loan over a ten-year period, assuming repayments would be made on a monthly basis.
35. Taxpayers "pay" for the bailouts of financial institutions by having to pay higher prices for consumer goods and services. Bailouts cause inflation because they are invariably financed by "quantitative easing" (printing of money). Whenever central banks purchase the "assets" (invariably bad loans) of financial institutions, printed money enters the system and causes inflation. It is sometimes overlooked that not only commercial but also central banks can "create" money, albeit in different ways. Commercial banks "create" money by making loans; central banks do it by printing money. Inflation takes place whenever central banks, in an attempt to prop

up troubled financial institutions, use newly printed money to pay full or pre-crisis (higher) prices to financial institutions for their "assets." Such bailouts constitute a massive subsidy of the shareholders of privately owned financial institutions by taxpayers. In this sense, central banks – which in some countries such as the US are privately owned – effectively provide a "safety net" for banks.

36. In addition, as the Chicago (monetarist) argues, public spending does not replace but rather "crowds out" private investment.
37. The US for example has borrowed heavily from China, Japan, and other nations that routinely "invest" their surplus earnings of foreign exchange, obtained from trade surpluses with the US, in US Treasury Bills, short term US government bonds.
38. A higher value of the local unit makes imports cheaper but exports more expensive.
39. Money supply in the narrow sense consists of cash and coins in circulation. In the average developed economy, this constitutes less than 5% of the money supply in the broad sense, which includes transactions (demand) deposits, as well as time deposits.
40. This essentially takes place when banks make loans. These loans are hardly ever made in cash but almost always by check. As soon a loan is made, new money is "created." To make a new loan in this way, the bank only needs to have enough excess reserves with the central bank to cover merely a fraction (commonly less than 10%) of the total amount of the loan.
41. JAK banks in Sweden provide interest-free loans to consumers. The cost of administering such loans averages about 2% of the total amount of the loan.
42. Open market operations refer to the trading (buying and selling) of government issued debt (bonds). Government bonds are issued by the ministry of finance, but the trading is carried by the central bank. A sale of bonds to banks has the effect of reducing the reserves of financial institutions, leading to a contraction of credit (lending) and an increase in interest rates. A purchase of bonds has the reverse effects.
43. See for example, Hamid Reza Izadi and Maryam Izadi *New Monetary Policies in Usury-free Banking*, Asian Economic and Financial Review, 2013, 3(7), pp. 881-905.
44. Rafe Haneef, "From Asset-backed to Asset-light Structures: the Intricate History of Sukuk," *ISRA International Journal of Islamic Finance,* ISRA, Volume 1, Issue 1, December 20019, pp. 103 – 126.
45. These effects include inflation, unemployment, sluggish growth and a growing gap between the rich and poor.
46. During the recent (2007) financial crisis, the government of Sweden bought up most of the near bankrupt banks at rock bottom prices, effectively nationalising the banking system.
47. Asset-backed securities are certificates of ownership of productive assets.
48. n.a. *Resolutions of the Securities Commission Advisory Council*, revised second edition, Securities Commission, 2009, pp. 96 – 99.
49. Hyman P. Minsky, "The Financial Instability Hypothesis," Working paper No. 74, May 1992, prepared for *Handbook of Radical Political Economy*, Philip Arestis and Malcolm Sawyer (eds.), Edward Elgar Aldershot, 1993, pp. 7-8, accessed online on 9 May 2013, <http://ssrn.com/abstract=161024 or http://dx.doi.org/10.2139/ssrn.161024>