Debt and Economic Activity

*Abdul Karim Abdullah (Leslie Terebessy)**

Abstract: Many nations, rich and poor alike, are reeling under mountains of interest-based debt. What are the effects of large and growing debts on economic activity? It is widely believed that borrowing helps the economy to grow faster. However, a number of recent studies have shown that, beyond a certain threshold, large levels of debt in fact slow down economic activity rather than stimulate it. It appears that in some countries this threshold has already been passed. Others are coming dangerously close to it. Reduced or negative rate of growth makes it harder to repay existing debts. Social unrest has taken place in a number of countries as governments channel increasing amounts of limited tax revenues towards the repayment of debt with interest to creditors. A more effective way to respond to the debt crisis is to adopt bona fide Islamic financing. In such a system there is no room for earning interest income by lending. Active participation in the real sector is required. Participation in real sector activity is rewarded by incentives in the form of profits, rents, and wages.

Introduction

Debt is a condition of obligation by one party to another. It commonly arises from borrowing. Items borrowed typically include real assets or money. When real assets are borrowed, the fee paid for their use is known as rent. When money is borrowed, the fee paid for its use is known as interest. The difference between rent and interest is that the former is paid in return for an item that is in some way *useful*. Interest, by contrast, is paid for the use of money alone, which in itself is *not useful*.

Money can be borrowed formally or informally. Formal lending is documented by means of contracts between borrowers and financial institutions. Informal lending such as when friends make interest-free loans to each other is normally not documented. Formal lending invariably takes place *at interest*.

A loan contract is a legally enforceable agreement between the debtor and the creditor. The creditor permits the borrower to make use of the creditor's money for a period of time for a fee (interest). The amount of money loaned is known as *the principal* amount of the loan. The principal has to be returned to the creditor in full on a date that is agreed upon in advance. This date is known as the *maturity date* of the loan.

People go into debt for various reasons. In some cases, they may be unable to meet their basic needs using their own resources and thus feel compelled to borrow. In most cases, however, people borrow to purchase consumer items such

as automobiles or houses. Others may borrow to take advantage of what may appear to be a promising business opportunity.

In some cases people may be enticed into going into debt without the full knowledge of all the terms and conditions of the loan contract they enter into. Such enticements may take the form of “free” gifts, inexpensive trinkets that have the effect of making potential borrowers more amenable to going into debt.

Loans can be repaid in a single (bullet) payment or they can be *amortised*. When a loan is amortised, the total amount of repayment is spread evenly over a specified number of repayments. By the time the debtor makes the last payment, the loan will have been fully repaid. The amount of interest, along with the dates on which it has to be paid, is specified in advance.

Unlike payments of profits to investors the amount of interest is determined as a percentage of the loan rather than as a percentage of any profit earned with the help of the loan. Nevertheless, in the case of business loans, all money paid to creditors in the form of interest still has to come from the profits earned by entrepreneurs. In other words, raising funds by way of borrowing at interest reduces the profitability of any business that uses this method of financing. Moreover, when entrepreneurs are unable to earn sufficient profits to make the agreed-upon payments of interest, the money to repay debts will have to come from other sources.

Should a debtor fail to repay any part of the loan as agreed, or should he fail to pay any part of the interest, he will be in default. Default is a breach of the loan contract and may result in court proceedings by the creditor to recover any outstanding amounts due to him from the debtor.

Debtors may be unable to repay for a number of reasons. They may have borrowed too much. Alternatively, personal or business income may fall short of the levels necessary to make repayments. An economic downturn, a drop in the price of exported commodities or an unfavourable change in the foreign exchange rates can also make debts more difficult to repay. Should a debtor be unable to pay, he may default and be driven into bankruptcy.¹

Since the legalisation of lending at interest, indebtedness has become a part of everyday life. Few are able to conceive of life without credit cards, banks, housing mortgages, car loans or student loans. Traditional restraint regarding indebtedness has given way to a culture of debt, if not also to a culture of living beyond one's means.

The new perspective on debt makes it more socially acceptable to go into and remain in debt. Spend first, and save money to repay debt later.² In the US, prior to the recent 2007 global financial crisis, “the personal saving rate plunged to 1 per cent, and the bottom 80 per cent of Americans were spending, every year, roughly 110 per cent of their income.”³

This contrasts with a more traditional view, according to which one is expected to save money before spending it. The use of savings for the purpose of spending enables the person or institution to stay out of debt. Remaining debt-free in turn is more conducive to safeguarding one's dignity.

Given the number of personal and business bankruptcies in many countries, including bankruptcies of entire nations (sovereign default), debt-restructurings have become a part of life. What are the effects of indebtedness, in particular on economic growth? What is the evidence of these effects? What can be done to overcome indebtedness? These are among the questions addressed in this paper.

Rising debt mountains

While the risks of lending to creditors are often highlighted, the same cannot be said about the risks to debtors. The risk to the lender is that a borrower may fail to repay the debt or a part of it to the lender. The borrower, in contrast, faces the risk of being unable to repay the debt. The pressure to repay debt increases with the amount owed and the interest rate charged.

Borrowers generally go into debt in the expectation that their future income will be enough to pay off any debts with interest. However, this expectation is not always fulfilled. Kenneth Rogoff and Carmen Reinhart write, "What is certainly clear is that again and again, countries, banks, individuals, and firms take on excessive debt in good times without enough awareness of the risks that will follow when the inevitable recession hits."⁴

Borrowing is risky even when no interest is paid on a loan. There is no guarantee that a borrower will be able to repay his or her loan, as and when agreed upon. Borrowing at interest is riskier, as the borrower has to repay *more* than what he borrowed. Simple interest increases the total amount owed at a constant rate. Compound interest increases the amount owed at an *exponential* (accelerating) rate.

The result of adding interest to a loan is that the final amount owed can be several times higher than the original amount borrowed. Over time, debt may grow so large that the debtor may be unable to repay it and default. This can result in becoming trapped in debt, being unable to get out of debt.⁵

Borrowing is even more risky when it takes place at "floating" (or adjustable) rates of interest. The reason is that the borrower does not know in advance what rate he might be obligated to pay. Floating rates move up and down with market forces. This causes a considerable degree of uncertainty. When adjustable rate loans are taken out, borrowers become exposed to "interest rate risk," or the possibility that interest rates may go up to the point where they will become unable to service their loans. This applies not only to households but also to firms and governments.

Today, indebtedness no longer affects only individuals and business, but even nations and their governments. Entire countries (Greece, Portugal, Spain, Ireland, and others) are teetering on the brink of bankruptcy. Indebtedness poses a threat even in relatively advanced nations. Stephen Cecchetti, M.S. Mohanty and Fabrizio Zampolli write:

High and rising debt is a source of justifiable concern ..., household and corporate, as well as government. Over the past 30 years, summing these three sectors together, the ratio of debt to GDP in advanced economies has risen relentlessly from 167 per cent in 1980 to 314 per cent today, or by an average of more than 5 percentage points of GDP per year over the last three decades. Given current policies and demographics, it is difficult to see this trend reversing any time soon.⁶

In the US total non-financial debt, government, business and consumer, just prior to the Great Depression, was at 300 per cent of GDP.⁷ By 2010 it was 360 per cent of GDP. The US national debt currently exceeds \$16 trillion, or more than 100 per cent of GDP. In 2012 \$432 billion of interest, or nearly 3 per cent of GDP, was paid on the national debt. For the five-year period beginning in 2008 the US taxpayers have paid a total of \$2.134 trillion *in interest payments on the national debt alone*.⁸ According to one estimate, by 2016 the US national debt will rise to \$20.3 trillion.⁹

Household and corporate debts have likewise reached unprecedented levels. Starting from near zero in the 1950s, by the second half of 2012 household debt in the US reached \$12.9 trillion,¹⁰ on which more than \$1.1 trillion of interest will have to be paid.¹¹ Paul Krugman points out:

The root of our current troubles lies in the debt American families ran up during the Bush-era housing bubble. Twenty years ago, the average American household's debt was 83 per cent of its income; by a decade ago that had crept up to 92 per cent; but by late 2007, debts were 130 per cent of income.¹²

Other developed countries are hardly in a better position.

In advanced economies, during the five years preceding 2007, the ratio of household debt to income rose by an average of 39 percentage points, to 138 per cent. In Denmark, Iceland, Ireland, the Netherlands, and Norway, debt peaked at more than 200 per cent of household income.¹³

Developing nations are not spared large debts either. Beginning in 1964, the government of Nigeria borrowed \$17 billion from wealthy creditors. By 2005, and after six years of not borrowing, Nigeria's debt ballooned to \$31 billion, because compound interest and penalties were added to the original debt when Nigeria failed to make promised payments.¹⁴

Effects of public debt

A high level of public debt has a range of adverse effects. “For individual households and firms, over-borrowing leads to bankruptcy and financial ruin. For a country, too much debt impairs the government’s ability to deliver essential services to its citizens.”¹⁵ Moreover, a high level of debt increases volatility and retards growth: “beyond a certain point, debt becomes dangerous and excessive.”¹⁶

A study carried out in 2001 showed that in order for the US government to continue servicing its national debt as it has been doing in the past, personal income taxes would have to increase up to 65 per cent by 2013 just to pay the interest charges on the US national debt.¹⁷ Demographic changes in the form of low birth rates and an aging population present an additional challenge to the problem of debt.

For these reasons, governments may find themselves unable to service large and growing debts over the longer term. As total debt rises, additional borrowing becomes more expensive. If lenders begin to have doubts about a government’s ability to repay, as David Greenlaw et al. write, “the government will begin to pay a premium to international lenders as compensation for default or inflation risk. This higher interest rate in turn [will] make fiscal sustainability even harder to achieve, possibly leading to a fiscal crunch – a tipping point in which sovereign interest rates shoot up and a funding crisis ensues.”¹⁸ Cecchetti, Mohanty and Zampoli explain:

As debt levels increase, borrowers’ ability to repay becomes progressively more sensitive to drops in income and sales as well as increases in interest rates. For a given shock, the higher debt, the higher is the probability of defaulting. ... If the downturn is bad enough, defaults, deficient demand and high unemployment might be the grim result. ... In other words, higher nominal debt raises real volatility, increases financial fragility and reduces average growth.¹⁹

Recessions are typically addressed with countercyclical spending. However, apart from displacing (crowding out) private investment, deficit spending adds to the national debt. Higher taxes necessary to repay debts in turn reduce private spending and further slow down economic growth. In addition, as debt increases, creditors are likely to demand higher rates of interest: Greenlaw et al. continue, “as the ratio of government debt to GDP rises, the government’s borrowing cost ... likely rises with it.”²⁰ In this way excessive borrowing restricts the government’s ability to maintain existing social programs and to finance new ones:

the capacity of the public sector to borrow is not unlimited. When a crisis strikes, the ability of the government to intervene depends on the amount of debt that it has already accumulated. ... Fiscal authorities may become constrained both in their

attempt to engage in traditional countercyclical stabilisation policies and in their role as lender of last resort during a financial crisis. That is, high levels of public debt can limit essential government functions.²¹

High debts reduce growth in another way. The need to service debt requires the diversion of funds from spending in the real sector towards the repayment of debt. In this way, repayment of debt with interest reduces consumer spending, business investment and government expenditure on essential social services.²² In other words, the effects of paying interest on loans are similar to paying taxes. Higher interest rates reduce spending and therefore growth just as higher taxes do.

In the US, the rise in debt during the post war period was accompanied, Hyman P. Minsky writes, by “a significant decline in the growth of consumption”.²³ Any fall in consumption, or even a decline in its growth, will slow down economic activity, as consumption is by far the largest component of aggregate demand, making up approximately 70 per cent of all spending. Repayment of government debt requires increases in taxes and reductions in social services, which further reduce aggregate demand.²⁴

A recent study of the effects of high levels of debt on economic growth in twenty advanced countries during the post WWII period showed that countries with a level of public debt in excess of 90 per cent had experienced average annual levels of economic growth that were significantly lower than countries with lower levels of public debt. Over the last two hundred years, countries with a debt higher than 90 per cent of GDP grew at an average rate of 1.7 per cent per annum.²⁵ By contrast, countries with relatively low levels of public debt (30 per cent of GDP) grew on average at the rate of 3.7 per cent per annum.²⁶

A separate IMF study confirmed that “countries that crossed the 100 per cent threshold [of public debt to GDP] typically experienced lower GDP growth than the advanced economy average.”²⁷ A study conducted by the Bank for International Settlements, similarly concluded that “beyond a certain level, debt is bad for growth. For government debt, the number is about 85 per cent of GDP. For corporate debt, the threshold is closer to 90 per cent. And for household debt, we report a threshold of around 85 per cent of GDP.”²⁸

The researchers of another study found “a significant relation between debt loads and borrowing costs”. Even more ominously, they found that interest rates “rise much more quickly at higher debt levels”.²⁹ The reason for this is that as debt levels rise in relation to GDP, creditors “demand a higher interest rate in compensation for the possibility of default or inflation.”³⁰ This already took place in 2010 “when several European countries suddenly faced rapid increases in borrowing rates on sovereign debt that rendered their current fiscal policies unsustainable.”³¹

The implication is that a number of countries with high levels of debt would require impossibly high rates of GDP growth because of high levels of interest rates. The creditworthiness of the nation decreases as its debt load increases. As the creditworthiness of countries falls, creditors demand higher rates of interest to compensate for the possibility of default.

In 2012 the average yield on ten-year Greek government bonds was close to 23 per cent per annum.³² If Greece were to pay a 23 per cent interest rate on its outstanding debt, repaying its debt would become virtually impossible. Greenlaw et al. explain: "The reason is that with debt already at 165 per cent of GDP, 23 per cent interest on this debt would require 31 per cent [growth] ... of GDP each year just to make the interest payments."³³

Even a large nation such as the US is not immune from the damaging effects of an increase in interest rates. Should the currently low interest rates on short-term debt, less than 1 per cent, rise to their former levels of approximately 4 per cent to 5 per cent, "debt service costs will skyrocket."³⁴

Another damaging effect of large national debt, as can be seen from history, is political destabilisation. The Ottoman Empire collapsed in part due to the large debts it owed to foreign creditors. The large debts that Germany was saddled with after World War I facilitated the rise of Nazism, with calamitous consequences that manifested themselves in the run up to and during World War II. The need to reduce spending on social services and to increase taxes to raise revenue to repay debt is causing political upheavals in various European nations.

Effects of debt on currencies

The 1997 currency crisis was triggered by a speculative run on Asian currencies, by largely unregulated hedge funds. Hedge funds borrow vast amounts of money at interest, and then use this money to influence market prices in their favour by trading on a large scale. By entering a given market on a large scale, they increase the demand for the assets subject to speculation, for example, shares. As the demand for the shares goes up, their prices rise accordingly.

When speculators feel that the shares are unlikely to rise further, they reverse the flow and begin to sell their shares at the higher prices. They make a profit as a result of selling the shares at higher prices than those at which they bought them. Problems to the host countries may arise when their central banks do not have enough foreign exchange reserves (and may be unwilling to borrow from international lenders such as the IMF) to buy back the local currencies now sold by speculators as they attempt to withdraw their funds.

Initially, the entry of large sums of short-term investments into Asian stock markets boosted prices. The subsequent exit from Asian markets of even greater amounts of short-term speculative capital, however, had the reverse effects. A

number of countries ran out of foreign exchange reserves and had to devalue their currencies or borrow from the IMF. In this way, borrowing large sums by hedge funds, and using these funds for speculative purposes, can destabilise and even bankrupt entire countries.

As a result of currency devaluations, the amounts of the loans of the affected nations owed to foreign lenders ballooned.³⁵ A number of countries defaulted on loans denominated in foreign currencies. Thailand defaulted in 1997, the Russian Federation in 1998, Brazil in 1999, Turkey in 2000, and Argentina in 2001. The crisis forced either IMF bailouts or the imposition of currency controls and currency devaluations.

Debt and the 2007 economic crisis

Ten years later, the recent global financial and economic crisis of 2007 witnessed the deepest contraction in 50 years. Excessive debt (leverage) was again a major factor contributing to the crisis. Surplus funds managed by hedge funds, along with pension funds, and insurance companies played a leading role in this crisis, when they channelled vast sums of money into the US subprime mortgage market by purchasing collateralised debt obligations (CDOs) on a large scale.

Greenlaw et al. observe: “The financial crisis of 2007 to 2008 occurred because we failed to contain the financial system’s creation of private credit and money.”³⁶ As a result of excessive lending and low interest rates, an asset bubble developed in the real estate sector. The bubble burst when credit markets froze in August 2007. Asset prices, including the prices of the collateralised debt obligations, collapsed. “The subsequent sharp economic downturn in advanced countries reduced fiscal revenues and led to increased government spending, with the result that government debt has grown dramatically for most developed economies since 2008.”³⁷

The failure of Bear Stearns in the spring of 2008 was followed by the collapse of Lehman Brothers, another leading investment bank, in September 2008, by which time world trade contracted by 20 per cent. GDP of industrialised nations contracted by approximately 5 per cent, the worst contraction since the Great Depression.

Shortly thereafter, the American International Group (AIG) was bailed out using taxpayer funds, along with Freddie Mac and Freddie Mae, two major US government-sponsored mortgage-refinancing institutions. In the UK, Northern Rock and the Royal Bank of Scotland had to be rescued. Northern Rock experienced a run on the bank. A number of financial institutions were likewise deeply in debt.³⁸ As a result of the rescues of troubled financial institutions, government debt increased dramatically: “when private borrowing has fiscal backing, default increases public debt.”³⁹

During the five-year period from 2007 to mid-2012 of the recent global financial crisis, more than 4 million families lost their homes while another 3.5 million homes were in foreclosure or behind in payments. In addition, 13.5 million houses were worth less than the mortgages that were taken out to buy them.⁴⁰ During the same period, 7.3 million people declared bankruptcy.⁴¹

The US government tried to keep the economy out of recession by deficit spending. The result is that the US public (government) debt has been growing at an exponential rate. It had grown from \$2.4 trillion in 1987 to over \$16 trillion by 2012. This does not include an additional \$66 trillion of unfunded liabilities, mostly Social Security (pensions) and Medicare.

The danger presented by large and growing debts over the longer term is that a growing proportion of wages, profits and tax revenues has to be diverted from the real sector to repay debt. As a result, progressively less money remains available for spending on consumption, investment and the provision of essential public services.⁴² Lower spending in the real sector reduces aggregate demand and slows down economic growth.⁴³ A reduction in growth in turn reduces government tax revenue and makes it still harder to repay debt. "Without rising GDP, there will be no way to raise the revenues governments need to reduce their exploding debts."⁴⁴

This can cause a downward spiral. First, taxes need to go up in order to repay debt. Higher taxes, however, reduce consumption and investment. A reduction in consumption and investment spending slows down economic growth. A declining, stagnant or negative growth in turn causes a further decline in government tax revenue. A reduction in tax revenue coupled with the need to make higher interest payments worsens the (budget) deficit and makes it still harder to repay debt. Taxes may have to go up again, and the same cycle repeats itself.

The experience of Japan with utilising loan financing is instructive. In the 1970s, Japan's Ministry of Finance "trivialized the role of equity markets" and encouraged Japanese corporation to use *borrowing* rather than risk-sharing (equity) financing for the purpose of investment.⁴⁵

Initially the expenditure of borrowed funds stimulated investment and economic activity. Observers spoke of the "Japanese miracle." Over the longer term, however, the miracle proved elusive. The large-scale expenditure of borrowed funds caused inflation and an asset bubble, especially in the property sector.⁴⁶ Two decades later, in 1991, the bubble burst. Then a recession struck.

Now the problems of Japan include "a huge accumulated debt, and a very slow growth rate."⁴⁷ Over the last decade the average rate of growth in Japan has been -1 per cent. Japanese corporations are struggling to free themselves from a mountain of debt incurred in the heyday of borrowing. No end to the recession appears in sight.

In response to the recession, the government of Japan embarked on a policy of deficit spending. In trying to rescue the corporate sector, however, the government of Japan not only did not succeed in ending the recession. Instead, it went deeply into debt itself. Japan's national debt is now the highest in the world, at 230 per cent of GDP. It stands at 120 per cent of GDP even after reserves of foreign exchange are taken into account.⁴⁸ Much of its debt it owes to its own citizens, known for their high propensity to save.

The experience of the Great Depression of 1929-1939 confirmed that over the longer term high debts reduce rather than boost economic growth. Heavy debt loads, crushing interest rates and dramatic collapses in asset prices, all contributed to the Great Depression.⁴⁹ Prior to the October Crash of 1929, household debt had been steadily rising, reaching a peak of 53 per cent of household income. Following the crash, between 1929 and 1939, nearly two million homes were lost to foreclosure.⁵⁰

Despite these realities, few signs of alarm about lending at interest are discernible in mainstream discourse on the latest crisis that started in 2007. From time to time one hears calls for more stimulus, as a way of overcoming the current crisis, but seldom, if ever, are fundamental assumptions, such as the utility of interest-based lending, subjected to scrutiny. Were parties with surplus capital forced to invest in the real sector instead of making loans at interest, many of the problems currently being experienced would be overcome.

In the meantime, government efforts are focused on identifying areas where money can be saved to divert more funds towards the repayment of debt rather than on attempts to reform the financial system. Due to a lack of alternative vision, governments solve the problem of debt by more borrowing (rolling over the debt). This does not solve the problem of debt in the long run. True reform will not take place until the thinking about the financial system changes. This requires the adoption of a new paradigm of economic theory to guide practice, one in which there is no room for interest-based financing, one where all financing takes place on the basis of risk sharing, as indeed required by ethical, that is to say interest-free, financing.

Responses and proposed solutions

The solution to the problem of large and growing debts, public or private, lies in adopting alternative, interest-free methods of financing, in particular risk sharing. This has already taken place in a number of countries. In Sweden, interest-free financing is available in the form of the JAK banks. In Turkey participatory banking has been introduced.

Financing investment by means other than borrowing at interest would ensure that only actual savings could be invested. This would have a significant

restraining effect on investment and prevent the type of overinvestment that results when financing business activity takes place with borrowed funds. Preventing overinvestment in turn would reduce the likelihood of the development of asset bubbles, the bursting of which invariably signal the beginning of a recession or worse.

Existing debt, whether public or private, should be converted into equity wherever possible. This has indeed been already done in the case of some troubled financial institutions. Bonds are commonly issued with warrants that give the option to creditors to convert their bonds into shares. Instead of making loans to businesses, financial institutions should take equity stakes in the businesses they wish to finance and re-invent themselves as “finance houses”. Their former depositors would have to be informed that as investors they face a degree of risk, depending on the manner in which they choose to participate.⁵¹

In this way the interests of the investors (former depositors) will be more fully aligned with the interests of the shareholders. They will also have a stronger incentive to exercise due diligence and ensure that they commit funds only to convincing and credible business enterprises. The law needs to change to enable banks to buy shares in businesses, as is already the case in a number of countries, such as Germany.

An interest-free financial regime will ensure that income can be earned only in exchange for productive activity, in the form of wages, rents or profits. This will ensure that only productive activity and risk taking will be rewarded. It will also ensure that all income will remain within the real sector (the circular flow) and not be withdrawn from it at any stage in the form of repayments of loans.

One way to facilitate the phasing out lending at interest is to encourage retailers to sell goods directly to consumers on an instalment basis. This is already a practice in a number of nations, in the sales of furniture, clothing or automobiles, for example. However, the problem with the current arrangement is that interest charges added to the price of the furniture substantially increase its final price to the consumer.

In order to avoid *riba* or interest, therefore, it is necessary to ensure that the credit price be the same as the spot price. This means that the sum of all the instalment payments, minus the administrative charge (set by law), must be equal to the cash price of the item.⁵² This should be done in all markets for consumer goods, including the housing and automobile market.

Direct selling by producers to consumers will increase efficiency by eliminating the need for financial intermediaries. It will do so by eliminating interest expenses paid by buyers, as well as by reducing administrative expenses. The reduced cost of consumer items will stimulate sales, increase production levels and increase levels of employment all at the same time.

Another way to accelerate the phasing out of lending at interest is to encourage firms to raise capital by issuing shares and participatory *sukuk* rather than by borrowing. The legal environment needs to be restructured to make the issuance of shares and *sukuk* easier and less complex. Tax breaks that favour lenders need to be transferred to firms raising funds by means of equity and *sukuk*.⁵³ The rights of minority shareholders need to be better protected, transparency and accountability need to be enhanced and corporate abuses need to be curtailed.

These measures will result in higher overall production levels and less waste. In principle, in an interest-free economy, real GDP can be expected to rise by the amount currently paid out to all creditors in the form of interest payments, or by approximately 8 per cent of GDP. The reason is that all monies previously paid to lenders would now flow to workers in the form of wages, business people in the form of profit, and owners of real property in the form of rents.

This would be good news to consumers who currently pay higher prices for consumer goods due to the need of business firms to include interest expenses in the cost of final goods and services. It would also be good news to the unemployed. In an interest-free regime, firms that were previously unable to gain access to capital due to the fact that it came at a cost, would now be able to raise it on a risk sharing basis. In other words, they would no longer need to commit themselves to paying pre-determined rewards to the suppliers of capital in the form of interest, irrespective of the performance of the entrepreneurs' businesses. This would enable firms to access investment capital, hire more workers and thereby boost both employment as well as production levels.

Conclusions and recommendations

The practices the law permits and prohibits significantly impact the long-term well being of society. The tolerance of harmful practices can have only harmful consequences. The harmful consequences of financing at interest, which enables some to "earn" additional wealth without the need to work and even to take risk, are becoming clearer by the day.

The need to channel progressively larger portions of income toward the payment of interest on debt is reducing aggregate demand and slowing down economic growth. An overall reduction in production resulting from reduced spending in addition reduces the standard of living, leaves fewer funds available for research and development and exacerbates recessions. What is worse, swings of business cycles since WWII have been getting more pronounced.⁵⁴ Current trends are hardly sustainable.

It is clear that financing by way of lending at interest is neither sustainable nor viable over the longer term. In the series of crises since the Great Depression, each crisis has been more severe than the one that preceded it. The fact that

interest-based financing has been entrenched for centuries need not deter reforms. Slavery was likewise entrenched for centuries until it was abolished. An unjust practice is never sustainable over the longer term. The fact that many nations are facing bankruptcy should add a degree of urgency to the much-needed reform of the financial system.

Deregulation is not a panacea for economic problems. Economic activity, like any activity, needs to be regulated for the benefit of the participants. It needs to be regulated in ways that promote, rather than hinder, an efficient allocation of resources. Incentives need to be in place to reward real contributions to production. Above all, the opportunities for rent seeking in the form of interest income for which no meaningful counter value is given should be eliminated.

In order to achieve a fuller utilisation of resources, it is necessary to ensure that investment funds can be raised only on the basis of risk sharing, where investors take responsibility for the outcome of the enterprises they finance. The opportunity to obtain guaranteed income without work or without taking risk should not be tolerated as a matter of principle in any well-governed society.

- Public education is required to facilitate the conversion of debt-based to asset-backed financing.
- It is necessary to explain the advantages of financing on the basis of risk sharing.
- Economic theory that is not based on interest-based financing needs to be developed.
- Sellers should be legally permitted to sell directly to buyers on an instalment basis, while meeting the condition that the credit price be the same as the spot price in order to avoid interest. This should apply to both the product and resource markets.
- The debts of those unable to repay should be forgiven: if not the principal amounts, at least the interest portions of it.
- Tax breaks currently encouraging borrowing at interest rather than issuing equity have to be transferred to issuers of equity and equity-type instruments such as participatory *sukuk*.

Notes

- * *Abdul Karim Abdullah* (Leslie Terebessy), Assistant Fellow at IAIS, earned his MA in political philosophy from the University of Toronto, Canada (1999) and a MEd (1986) from the University of Toronto's Ontario Institute for Studies in Education (OISE). A former lecturer, editor, writer and coordinator of the English program at University Sains Islam Malaysia (USIM), his current projects involve research into the current financial crisis, critical thinking in Muslim societies, and Islamic Finance. He has edited *Islamic Studies at World Institutions of Higher Learning* (Kuala Lumpur: USIM 2004).

1. Chapra, M. Umer, *Towards a Just Monetary System*, The Islamic Foundation, 1985, p. 19.
2. The motto of the new culture can be summed up in the slogan, "Enjoy now; pay later."

3. Stiglitz, Joseph E. and Mark Zandi, "The One Housing Solution Left: Mass Mortgage Refinancing," *The New York Times*, August 12, 2012, accessed online on 10 June 2013; <http://www.nytimes.com/2012/08/13/opinion/the-one-housing-solution-left-mass-mortgage-refinancing.html?_r=2&ref=opinion&>
4. Rogoff, Kenneth S. and Carmen M. Reinhart, *This Time is Different*, Princeton University Press, Princeton and Oxford, 2009, p. xxxiii.
5. Inability to repay debt or default is sometimes presented as "debt intolerance". See Rogoff and Reinhart, *This Time is Different*, pp. 21-33.
6. This refers only to "nonfinancial" debt, which is owed by governments, businesses and households to financial institutions, but excludes debt owed by financial institutions to each other. Cecchetti, Stephen G., M. S. Mohanty and Fabrizio Zampolli, "The real effects of debt," *Bank for International Settlements*, BIS Working Paper No. 352, September 2011, pp. 1, 5 and 7, accessed online on 4 June 2013, <<http://www.bis.org/publ/work352.pdf>>
7. Non-financial debt excludes debt owed by financial institutions to other financial institutions. Snyder, Michael, "The Total US Debt To GDP Ratio Is Now Worse Than In The Great Depression," *Daily Markets*, July 21, 2010, accessed online on 14 May 2013, <<http://www.dailymarkets.com/economy/2010/07/21/the-total-us-debt-to-gdp-ratio-is-now-worse-than-in-the-great-depression/>>
8. This represents an increase of 8.6 per cent from the year before, according to the federal government's auditor. See the *United States Government Accountability Office (GAO): Report to the Secretary of the Treasury*, "Financial Audit: Bureau of the Public Debt's Fiscal Years 2012 and 2011 Schedules of Federal Debt," November 2012, p. 17, accessed online on 31 May 2013, <GAO-Financial Audit-Bureau of the Public Debt's Fiscal Years 2012 and 2011 Schedules of Federal Debt-November 2012>
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15. Cecchetti, Mohanty and Zampolli, "The real effects of debt," p. 1.
16. Cecchetti, Mohanty and Zampolli, "The real effects of debt," p. 5.
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18. Greenlaw David, James D. Hamilton, Peter Hooper, Frederic S. Mishkin, "Crunch Time: Fiscal Crises and the Role of Monetary Policy," paper written for the U.S. Monetary Policy Forum, New York City, 22 February 2013, p. 3, accessed online on 7 June 2013; <<http://research.chicagobooth.edu/igmp/usmpf/file.aspx>>
19. Cecchetti, Mohanty and Zampolli, "The real effects of debt," p. 4.
20. Greenlaw, Hamilton, Hooper and Mishkin, "Crunch Time," p. 8.
21. Cecchetti, Mohanty and Zampolli, "The real effects of debt," p. 4.
22. Government debt is paid off when the central bank buys government issued bonds, which is an equivalent to printing money, also known as quantitative easing. This way of reducing debt, also known as the "monetisation" of debt, however adds to inflation and erodes the purchasing power of currency. Some economists refer to it as a form of "default." Rogoff and Reinhart, *This Time is Different*, pp. 6-7.
23. Minsky, Hyman P., "Can 'It' Happen Again? A Reprise," *Hyman P. Minsky Archive*, paper 155, 1982, p. 8, accessed online on 10 May 2013, <<http://pamria.com/wp-content/uploads/2012/09/Truth-and-Policy-Options-Minsky-PAM-2012.pdf>>

24. High taxes are destructive of the community, as noted by Ibn Khaldun, among others. "Eventually the taxes will weigh heavily upon subjects and overburden them ... The assessments increase beyond the limits of equity ... Finally civilization is destroyed." Ibn Khaldun, quoted in Alfred Gierer, "Ibn Khaldun on Solidarity ("Asabiyyah") - Modern Science on Cooperativeness and Empathy: a Comparison," *Philosophia Naturalis* 38, pp. 91-104 (2001), accessed online on 31 Jan 2013, <[http://www.icts.res.in/media/uploads/Talk/ Document/ibn per cent20khalidun per cent20- per cent20gierer.pdf](http://www.icts.res.in/media/uploads/Talk/Document/ibn%20per%20cent20khalidun%20per%20cent20gierer.pdf)>
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28. Cecchetti, Mohanty and Zampolli, "The real effects of debt," p. 1.
29. Greenlaw, Hamilton, Hooper and Mishkin, "Crunch Time," p. 3.
30. Greenlaw, Hamilton, Hooper and Mishkin, "Crunch Time," p. 11.
31. Greenlaw, Hamilton, Hooper and Mishkin, "Crunch Time," p. 2.
32. The yield on Greek government bonds "reached almost 40 per cent at the beginning of March 2012." Greenlaw, Hamilton, Hooper and Mishkin, "Crunch Time," p. 33.
33. Greenlaw, Hamilton, Hooper and Mishkin, "Crunch Time," p. 23.
34. Greenlaw, Hamilton, Hooper and Mishkin, "Crunch Time," p. 47.
35. "The denomination of debt in foreign currencies implies that a currency depreciation increases the debt burden, which can lead to financial crises, a collapse in the economy and further exchange rate depreciation. The possibility of this vicious cycle puts limits on the amount of debt that a country can issue and constrains monetary policy options." Greenlaw, Hamilton, Hooper and Mishkin, "Crunch Time," p. 13.
36. Turner, Lord (Adair), speaking as chair of the Financial Services Authority, UK, 6th February 2013, "Financial Crisis & Recessions," *Positive Money*, p. 12, accessed online on 29 May 2013, <<http://www.fsa.gov.uk/static/pubs/speeches/0206-at.pdf>>
37. Greenlaw, Hamilton, Hooper and Mishkin, "Crunch Time," p. 2.
38. Stockhammer, Engelbert, "Rising Inequality as a Root Cause of the Present Crisis," *Political Economy Research Institute*, University of Massachusetts, Amherst, April 2012, Working Paper Series, No. 212, accessed on line on 29 March 2013, pp. 4-5, <http://www.peri.umass.edu/fileadmin/pdf/working_papers/working_papers_251-300/WP282.pdf>
39. Cecchetti, Mohanty and Zampolli, "The real effects of debt," pp. 4-5.
40. Stiglitz and Zandi, "The One Housing Solution Left"; See also Leigh, Daniel, Deniz Igan, John Simon, and Petia Topalova, "Chapter 3: Dealing with household debt," IMF World Economic Outlook, April 2012, p. 21, accessed online on 28 May 2013; <<http://www.imf.org/external/pubs/ft/weo/2012/01/pdf/c3.pdf>>
41. In 2007, 1 million homes were in foreclosure and 550, 000 people declared bankruptcy. In 2008 1.6 million homes were in foreclosure and 1.4 million people declared bankruptcies. In 2009, at the height of the global financial crisis, 2 million homes were in foreclosure and 2 million persons declared bankruptcy. 1.6 million homes were in foreclosure in 2010, and 1.8 million declared bankruptcy. In 2011, 1.2 million homes were in foreclosure and 1.5 million declared bankruptcies. Brown, Haughwout, Lee, and van der Klaauw, "The Financial Crisis at the Kitchen Table," p. 5.
42. In the US public infrastructure is showing visible signs of deterioration, as there are not enough tax dollars to pay for repairs. A major reason for the shortage of funds is the massive diversion of tax revenue towards the payment of interest on government loans.
43. n.a. *Congressional Budget Office*, "Federal Debt and the Risk of a Fiscal Crisis," 27 July 2010, accessed online on 7 June 2013, <<http://www.cbo.gov/publication/21625>>
44. Cecchetti, Mohanty and Zampolli, "The real effects of debt," p. 9.
45. Ataulloh, Ali and Minh Hang Le "Interest and the Modern Economy: A Reply," *The Lahore Journal of Economics*, Vol. 6. No. 2, p. 132, accessed online on 7 April 2013, <<http://www.lahoreschoolofeconomics.edu.pk/JOURNAL/Vol6-No2/Ali-Ata.pdf>>
46. "Credit creation by the banking system produces overinvestment in relation to voluntary saving." Robert Skidelsky, in Skidelsky, Robert and Christian Westerlind Wigstrom, *The Economic Crisis and the State of Economics*, Palgrave Macmillan, 2010, p. 8.

47. Greenlaw, Hamilton, Hooper and Mishkin, "Crunch Time," p. 23.
48. Project Syndicate, "Japan's Growth Strategy is All wrong," *The Guardian*, 18 January 2013, accessed online on 14 Feb 2013, <<http://www.guardian.co.uk/business/economics-blog/2013/jan/18/japan-economic-growth-strategy-wrong>>. See also "Win some, lose some," *The Economist*, 26th January 2013, accessed online on 14th February 2013, <http://www.economist.com/news/finance-and-economics/21570710-bank-japan-tests-limits-shinzo-abes-economic-power-win-some-lose>.
49. The debt/GDP ratio was very high prior to the Great Depression. The first global systemic financial crisis of 1873 was similarly caused by excessive credit expansion, high levels of debt, rising inflation and high interest rates. This crisis is also known as the Panic of 1873 or the Long Depression and lasted until 1879. The panic was followed by a series of bank failures both in the US and in Europe. Thousands of businesses, including railroads, failed.
50. Leigh, Daniel, Deniz Igan, John Simon, and Petia Topalova "Chapter 3: Dealing with household debt," IMF World Economic Outlook, April 2012, p. 16, accessed online on 28 May 2013; <<http://www.imf.org/external/pubs/ft/weo/2012/01/pdf/c3.pdf>>
51. Exceptions could be made in the case of the holders of transactions accounts, which would be fully guaranteed but pay no dividends.
52. This administrative charge compensates the sellers for any extra expenses arising from administering the sale on a deferred payment basis.
53. "[T]ax policies ... have played a role, if not in explaining the rapid rise in debt, at least in making the level of debt higher than it would have been otherwise. For instance, the preferential treatment of interest payments encourages firms to issue debt – a factor that could be behind the rising corporate indebtedness we see in some countries." Cecchetti, Mohanty and Zampolli, "The real effects of debt," p. 8.
54. Minsky, Hyman P. "Can 'It' Happen Again? A Reprise," *Hyman P. Minsky Archive*, paper 155, 1982, accessed online on 10 May 2013, <<http://pamria.com/wp-content/uploads/2012/09/Truth-and-Policy-Options-Minsky-PAM-2012.pdf>>