The World Debt Clock is ticking away. The real problem is not how the debt is funded but whether it is sustainable.

he global financial crisis has provided much fodder for reflection and analysis into our system of money and finance. From banker salaries and capital adequacy ratios to accounting methodologies and the failings of the discipline of economics, there has been a good deal of thinking into areas that may need reform. There has been plenty of regulatory overhaul as well. Amidst the lively debate on potential solutions to economic crises, one idea stands out for its theoretical elegance.

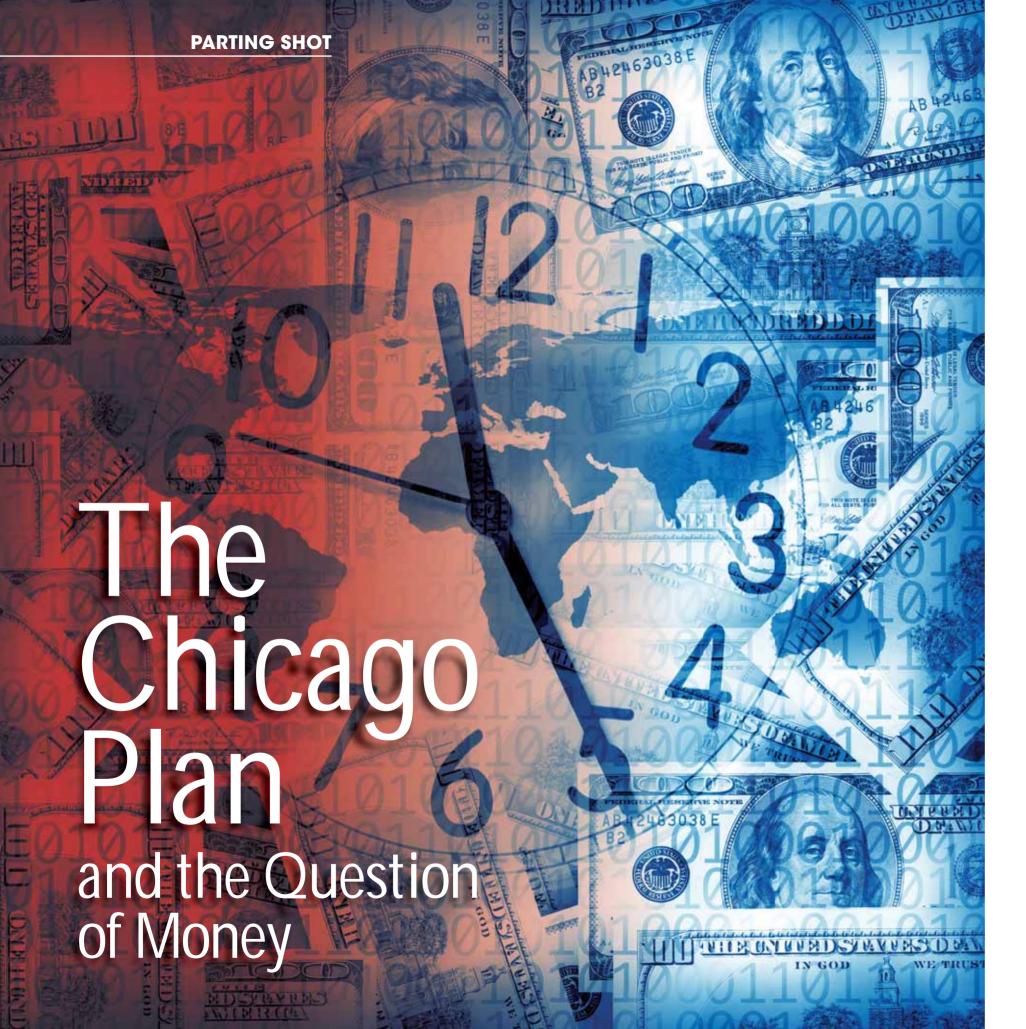
Interestingly, this idea first came up in the aftermath of the crash of 1929 and, despite not finding its way into the various policy reforms under the New Deal, it has repeatedly featured in discussions during every banking crisis since then. More recently, against the backdrop of the 2008 Global Financial Crisis, the International Monetary Fund (IMF) released a working paper with an updated version of the same plan adapted to current economic conditions. And in his latest book The End of Alchemy:

Money, Banking, and the Future of the Global Economy, Mervyn King recommends this solution as the ultimate answer to the structural flaws in today's system of money and banking.

So, what was this radical proposal? And would it be the ultimate solution that ends institutional temptations and addresses many economic woes?

The Chicago Plan

In the slew of bank failures that followed the crash of 1929, a radical resolution was put forward by a group of eminent economists from the University of Chicago. The 'Chicago Plan', as it was commonly called, appeared as a six-page limited circulation document titled 'Banking and Currency Reform' in March 1933, with a second revised version published in November in the same year. So radical was the recommendation that despite having the backing of prominent economists like Irving Fisher and Henry Simons, the first version was circulated as a confidential draft.



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The central idea of the Chicago Plan was "to make money independent of loans; that is, to divorce the process of creating and destroying money from the business of banking" 1 and place money creation under full sovereign control. This is radically different to the fractional reserve banking system in place today. which requires banks to maintain a certain percentage of their customers' deposits as reserves with the central bank and lend out the rest. Bank loans are typically disbursed by crediting deposit accounts and therefore add to the total stock of money. In fact, over 90 percent of the money in modern economies is created by commercial banks through the lending process.

The Chicago Plan targeted this precise feature of the current banking system. It recommended the abolition of fractional reserve banking and required banks to hold 100 percent reserves against demand deposits, effectively ending all lending by banks. It suggested that the economy's lending requirements could be met through a different set of institutions that would be funded out of equity investments, similar to modern day mutual funds. Investments in such lending institutions would obviously not be guaranteed. Proponents of the Chicago Plan argued that this solution would improve the safety of banks, reduce the occurrence of recessions and improve the effectiveness of monetary policy by putting money creation where it belongs, i.e., in the hands of the state.

Restricting the ability of banks to alter money supply through the lending process may seem intuitively appealing, especially given their role in the most recent financial crisis. Risky investments, high leverage and indiscriminate lending all contributed to a debt bubble which, when burst, sent shock waves

through the global economy, from which we have not yet recovered. In fact, separating money from debt seems like the perfect engineering solution to controlling the unbridled growth of leverage today.

However, a deeper examination of this model also leads to a provocative contradiction. While the Chicago Plan seeks to separate the creation of money from the creation of debt, history unambiguously suggests the inseparability of the two. In fact, money has been, and is even today, nothing but transferable debt. Its creation, destruction and quality are inexorably linked to the underlying debt and the quality of the debtor. The form of money and the nature of the lender are then just cosmetic embellishments. How odd then, that the Chicago Plan should try to separate the two.

Money as debt

The popular understanding of economic history places the evolution of barter, money and debt in chronological order. This view suggests that money came about as an improvement over the prevailing barter system and that the lending of money led to the birth of debt. In reality, barter probably had a very limited existence and money came about as a mechanism to record debt. If this is true, tackling the question of money should involve tackling the question of debt and not the other way round (refer to box story).

The early forms of state-issued money were either made of or backed by precious metal. With the introduction of paper money came a crucial difference—it was no longer backed by bullion. Today's monetary system of fiat money thus rests solely on trust in the modern state. In fact, fiat money attracts very high seignorage (i.e., profit made by a

government by issuing currency, especially the difference between the face value of coins and their production costs) since it is not based on any precious metal. While the process of creating money may be far more sophisticated today than in medieval times, the effect is the same—excessive seignorage erodes public confidence in money and generates inflationary pressures.

Although money creation is today in the hands of central banks that are independent of the government, things don't always work that way. In fact, IMF research suggests that weak governments that cannot finance their expenditures through taxes or debt often end up relying on seignorage. According to an IMF report, "Greater political instability leads to higher seignorage, especially in developing, less democratic, and socially polarised countries with high inflation, low access to domestic and external debt financing, and with higher turnover of central bank presidents."²

Systemic risk: Too big to fail

The Chicago Plan assumes that lending by non-banks would put risk-taking squarely in the hands of the investors in those institutions. In other words, since they are not holders of guaranteed deposits, they can be made to absorb losses. This again may be theoretically correct but is not borne out by actual experience.

If lending goes dangerously awry and starts posing systemic risk, practical considerations often require governments

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to step in to contain the political and economic fallout. 'Too big to fail' does not only apply to banks. Two of the biggest bailouts during the Global Financial Crisis in 2008 were for the mortgage refinancing agencies, Freddie Mac and Fannie Mae, and for the insurance company, AIG. It is not difficult to find similar examples closer to home as well. One of the largest ever bailouts in India was not for a bank, but for Unit Trust of India, the oldest and largest mutual fund company in the country.

Even within the banking system, it is very unlikely that separation of losses between deposit holders and bond holders may be the perfect solution. A more recent event in

Europe illustrates this point. The taxpayer-funded bailouts of large U.S. and European banks during the Global Financial Crisis sharply brought into focus the moral hazard of privatised gains and socialised losses in an industry that had indulged in excessive risk taking. The European Union's Bank Recovery and Resolution Directive (BRRD) was passed by the European Parliament to address this issue and all member states were required to implement the provisions no later than January 2016.

One of the key provisions of the BRRD is the 'bail-in' legislation that requires shareholders and unsecured creditors to be bailed-in before other forms of money can be accessed to

THE HISTORY OF MONEY

The economic history of humankind can be legitimately traced back to an event that probably occurred some 10,000 years ago when Man, the hunter gatherer, began to settle down in agrarian societies. The arrival of agricultural settlements spawned the beginning of division of labour and specialisation and, therefore, the first forms of commerce. The popular view holds that barter was the original solution to support the exchange of goods. Hence, for instance, a butcher and a farmer may have exchanged meat for corn. While this may seem plausible, historical and anthropological evidence, as well as deeper reasoning suggest otherwise.

Among its many limitations, barter is based on a coincidence of needs and hence, while barter may have operated on the fringes, it is very unlikely to have supported any wider form of commerce. The butcher may have needed corn, but the farmer may not have needed meat. Therefore, the solution that these early Neolithic societies were trying to develop was a way to record the debt of the butcher to the farmer. Cowrie shells, cattle, dried cod and other early forms of money were most likely serving

the functional utility of recording debt. So, the butcher handed over a couple of cowrie shells to the farmer to record his debt. The farmer, who may have needed vessels for food storage, in turn handed them over to a potter to record his debt.

Gradually the cowrie shells became separated from the original creator of debt by many orders and assumed their own life as 'money'. But the origin of that money was unquestionably linked to the creation of debt. And as long as the debtor was trustworthy, the money was good.

As societies evolved and settlements developed into kingdoms, the rudimentary forms of money were replaced by shining pieces of metal that we call coins. It was the same thing in a different form and with a crucial difference—the king, as the sovereign authority, assumed the power to issue and provide a guarantee for these coins and hence the coins functioned on the basis of trust in the king. A surrogate for sovereign risk was that the coins were created from or backed by precious metal.

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save a troubled bank. This appears to be an elegant solution that significantly reduces the risk of taxpayer-funded bailouts while adding a potential obligation to the risk component, even if that component is dilutive. In fact, the Austrian bank Heta was quietly wound up via bail-ins in April 2016. This was possible because the relatively small size of the bank meant the political and economic impact was limited. That it would not work on a larger scale was borne out when the Italian banking crisis began to unfold a few months later. The steady rise in non-performing loans since 2008 led to the severe pummelling of Italian banks' share prices in the aftermath of Brexit and began to threaten bank solvency. Ideally, the bail-in provisions would be the solution to resolve the capital positions of these banks. However, according to an analysis by The Financial Times, retail investors happened to hold from half to a third of subordinated bonds issued by banks.³ Penalising a vast base of small savers and pensioners would not just be politically unpopular, it could unleash a huge crisis in the country. Hence the reluctance of the Italian government to invoke these bail-in provisions.

This could be seen as a close parallel to a situation where small investors in a lending bank under the Chicago Plan face a significant default. While theoretically the investments in a lending bank are not guaranteed, any solution that involves widespread impact to a vast base of small investors is unlikely to work. The real problem is not how the debt is funded but whether the debt is sustainable.

The birth of private money

If issued under the correct principles, money can gain spontaneous acceptance irrespective of the issuer. In fact, private money other than commercial bank money continues to make its appearance when state-issued money becomes dysfunctional.

On 8 November 2016, when the Indian Prime Minister announced the demonetisation of 86 percent of the currency in circulation, there was, very expectedly, a significant level of disruption in economic activity. However, along with the reports of economic disruption were also others of the regeneration of private money-of small traders and vegetable vendors conducting trade using barter or other locally acceptable items for exchange. Within a week, alternate forms of exchange cropped up all over the country!

Another example is the Argentinean Peso crisis of 2002. The pegging of the Argentine Peso to the U.S. dollar in 1991 helped usher in a period of price stability and economic confidence. However, as the U.S. dollar began to appreciate, it became obvious that this arrangement was untenable. The rise of the Peso began to hurt exports and wreak economic chaos. In 2001, Argentina defaulted on US\$93 billion of sovereign debt. Growth rate declined, and in 2002, the economy contracted by 11 percent, pushing over half the population below the poverty line.4 The loss of faith in the Peso led to the spontaneous emergence of private money. An article in The Financial Times provided a rather entertaining commentary of the situation: "As they finish their tea and croissants, two elegantly dressed ladies at a Buenos Aires café ask their waiter how they might pay. As if reciting the day's menu from memory, the waiter gives them several options: pesos, lecops, patacones (but only Series I) and all classes of tickets-luncheon vouchers that circulate widely at restaurants and supermarkets in the city."5 Voila!

The debt trap

The Chicago Plan required that banks maintain 100 percent reserves against demand deposits. This obviously meant that the volume of government liabilities would need to be sufficient to match the level of money. And as the economy expanded and trade grew, the level of government debt would need to grow in tandem. Informational constraints and lack of perfect knowledge on the level of trade could cause a mismatch in the level of available government debt and monetary requirements while mismanagement may allow the government to issue money to support its own needs.

The World Debt Clock, which measures gross government debt, stood at US\$40 trillion in 2010 and is now past US\$60 trillion. It would not therefore be out of place to ask how long this can continue and at what point will excessive leverage cause an economy to hit the skids. Satyajit Das, author of A Banquet of Consequences, points out that total public and private sector debt in major economies is now at 300 percent of GDP. Hence, with average interest rates at 2 percent per annum, economies need to grow at a nominal rate of 6 percent to cover just the interest.6 How many developed economies today can we say are able to achieve close to that level of growth?

If money is so inextricably linked to debt, it is unlikely that we can have any meaningful and sustainable solution for money without factoring in a solution for debt. So, what then is that gold solution to debt, one that can end the unceasing cycle of economic boom and bust?

Therein lies the rub! Excessive leverage in itself is not the only kind of problem-property bubbles, fiscal imbalances, overcapacity in specific sectors and capital misallocation are just a few manifestations of the distortions Retail investors happen to hold from half to a third of subordinated bonds issued by banks. Penalising a vast base of small savers and pensioners would not just be politically unpopular, but could unleash a huge crisis in a country.

caused by debt and each of these requires specific bespoke actions. There is no silver bullet and no one ideal policy prescription that can address all problems at once. In fact, the Chicago Plan, or for that matter, any other innovative model for money, may help reorganise the system and bring in greater discipline. However, none of these solutions alone can address the root of the problem.

Markets often find diverse ways to wend around policy and regulation, irrespective of how well-thought through or comprehensive they are. In fact, even some of the newest innovations in money, such as cryptocurrencies, do not satisfactorily address the fundamental question of how much money an economy needs. The Bitcoin ecosystem for instance, creates new money (read, new Bitcoins) based on an algorithm to reward Bitcoin miners for writing transactions onto the digital Blockchain ledger and has an arbitrary cap of 21 million Bitcoins. The issuance of new Bitcoins is in no way connected to the volume of underlying trade and debt, and at some point in the future, when the 21 million Bitcoin cap is reached, their value is bound to appreciate, thereby causing a deflationary economic impact.

What is required then is a continuous assessment of market conditions and the implementation of timely and targeted measures to address specific issues. The economy is in fact a dynamic living organism and managing it requires a good understanding of not just the physiological processes internal to the various economic sectors, but also their

interactions to achieve stable equilibrium. There is no one cure for all ailments. Policy measures need to be tailored and continually adjusted. For example, countries like Singapore and Hong Kong have been very effective in controlling property bubbles through macroprudential policy actions like modifying loan to debt ratios, minimum down payments, and stamp duties on second purchases. Other relatively long gestation initiatives like financial literacy and credit bureau reporting are extremely valuable in building a healthy lending ecosystem. While each of these measures may not individually look like a solution to the problem of money, they all go towards creating a healthy and well-functioning economy, and it is only in a healthy economy that a healthy system of money

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The views expressed here are the author's personal views and not that of

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