

## FINANCE IS THE ORIGINAL SIN

We all understand that, intrinsically, the flow of income is circular. My spending is your income; your spending is my income. Whatever income we don't spend on goods and services produced by others, flows into the financial sector by being deposited in various intermediary institutions, or is used to purchase existing real estate or financial assets, including debt, whether repaying one's own or buying that of others. (I am ignoring cash stuffed in vaults or mattresses.) Innumerable transactions in outstanding assets may take place within the financial sector, but unless and until the "saved" income is used to buy freshly produced goods and services, the circular flow of income will diminish. For that flow to grow, the financial sector must lend more to nonbanks than it receives from them. In other words, in a growing economy, debt must increase.

This process is measured, albeit with many errors and omissions, in the Quarterly Financial Accounts of the US, compiled by the Federal Reserve. It is no surprise that the quarter-to-quarter growth rates in total "nonfinancial debt" are about the same as those in nominal GDP. On the other hand, the growth or shrinkage rates in financial debt (which is what financial institutions owe one another) vary all over the lot, essentially reflecting the fluctuations in speculative activity.

To be sure, the process of converting saving into income could take place through equity as well as debt. But in actuality, the amounts involved are trivial relative to debt growth. Indeed, net equity issuance by nonfinancial corporations has been negative for many years, reflecting stock repurchases by companies and bankruptcies.

Of course, debt and credit are the alternate sides of the same coin. Financial intermediaries assemble the inflows they receive into the larger chunks that are needed by borrowers. Using their experience and expertise, they decide which borrowers are creditworthy. The rating agencies perform this function in the bond market. Since, in general, savers do not know (or trust) the borrowers who ultimately receive their funds, a large industry has developed to facilitate, monitor, and adjudicate the process, as well as a large body of governmental regulation. This is to ensure that debts are repaid on time and as specified in the underlying contracts. No economy that relies on the division of labor can function in the absence of such a process, although the scope of the rules, the intensity with which they are enforced, and the penalties and shame imposed for violating them, differ widely.

For the circular flow of income to increase, however, it is necessary for aggregate credit to grow rather than shrink. In aggregate, for every debt that is repaid, new and larger debts need to be incurred. In order to have a just economy with an

efficient allocation of capital, obviously debts must be repaid. But from a macro-economic point of view, in contrast, especially during recessions, timely repayment of all debts is not essential, and sometimes undesirable.

The financial system is thus perpetually at odds with itself, trying simultaneously to shrink and grow. The problem is perpetual because it is not the fault of human designers, but of the way humanity itself is structured.

This internal contradiction has especially pernicious effects when it comes to government finance. The public tends to think that government is like a household or company, which should repay any debt relatively promptly. This attitude is reflected in the legal balanced-budget requirements of many states and localities, which some believe should apply to the federal government as well. Yet government spending on goods and services (excluding transfer payments) comprises 18% of GDP. If government borrowing fails to expand fast enough to maintain this share, private borrowing has to rise faster (indeed, unduly rapidly) if aggregate economic growth is to be maintained. Failure of government borrowing to grow implies recurrent national business recessions.

This reasoning also applies to reductions in the Federal Reserve balance sheet. If the federal budget remains in deficit, for the Fed to reduce its securities holdings they must be transferred to the private sector, potentially crowding out other borrowers.

The upshot is that balanced-budget pressures have been circumvented. Major evasions include the government's huge, off-budget, role as a guarantor of debt (as for residential mortgages) and as a lender (for example, of student loans). Although inevitably subject to widespread abuse, these measures are socially and economically necessary from a national point of view.

For policy makers, understanding, predicting, and modulating private borrowing is difficult enough, but this task is dwarfed by the complexity of the political determinants of government borrowing. Moreover, governments have access to means of debt repayment not available to the private sector. These include raising taxes, higher inflation, currency devaluation, confiscation, even repudiation.

As we have known ever since the Garden of Eden, promises by human beings (including promises to repay loans) are not always kept. Curiosity, risk-taking, and gambling are part of human nature, more for some of us and less for others. This means that there will always be many debtors, large and small, skating on thin ice and some falling through. Publicity regarding such situations, which is as much a function of media hype as of size or accuracy, prompts turmoil in financial markets. Once in a while – when, nobody knows in advance – market stampedes

may be triggered that materially impinge on the circular flow of income. When public hysteria reaches this flash point, the authorities have little choice but to arrange some sort of bail-out. Market participants understand this and plan accordingly.

In recent generations and at least for the next decade or two, life styles around the world have changed and will continue to change substantially. That includes finance. The huge, systemically important, institutions will continue to shrink, not just because of tougher regulatory restrictions and surveillance, but because their very size makes it difficult for them to remain technologically competitive. New, internet-based, intermediaries are emerging that will be able to judge loans, and transfer funds, more efficiently. More payments will be made electronically in ways that reduce or eliminate the role of traditional banks. Many or most bank branches will become redundant. The new intermediaries will find novel ways to game laws, rules, and supervisors, so that regulation will, almost by definition, lag behind innovation.

As evaluated by an extra-terrestrial observer, the world will likely be better off economically ten or twenty years from now. But among individuals alive today, or soon to be born, many will find their lives and livelihoods disrupted. They will regard themselves as losers. How they will give vent to their feelings is imponderable. But it is almost certain that the purchasing power of the assets that people and their pension funds are acquiring today to fund their future retirement will be determined in a political and financial environment far different from today's.

The crucial question will be, I believe, to what extent oldsters and youngsters will continue to make sacrifices in behalf of each other's futures. Will the oldsters continue to generously fund their offspring's education and family formation, both directly and through the political process? Will the youngsters continue to bear, personally and politically, the demographically expanding cost of social security and other pensions, and of medical expenses, to enable their parents to age in comfort? Will populists, drawing on the support of the young, manage to devalue the wealth owned by the mostly elderly rich, weakening or destroying the source of their political power?

Returning to the narrower theme of this session, we should expect financial markets to be volatile and unreliable during good times as well as bad. While, as with murder and robbery, the frequency and intensity of financial crises can and should be reduced by closer governance, success in such efforts will be intermittent and incomplete.