The widespread imposition of water rationing is strong evidence that a growing population means a shrinking share of natural wealth per person – and this implies a lower quality of life. Many seek a deliberate end to population growth to avoid further impact upon natural resources, especially water and desirable land.

For this common sense intuition to be proved wrong, a radical restructuring of our physical economy would be required – a transition to an economic system which aims for 100% recycling and zero waste, provides equitable access to scarce natural resources and maintains a plentiful supply of renewable energy.

To enable such a giant shift in resource efficiency, the “software” of our economic system will have to be re-engineered first. By software, I mean the laws, rules, structures and dynamics which shape the thinking and decisions made by everybody from national treasurers, finance ministers and industrial magnates, to ordinary consumers and shoppers on fixed incomes.

One of the elements which has to be redesigned lies at the heart of the growth imperative. Like the old story of the shark that has to keep moving forward to get the oxygen it needs to live, our money system has to keep growing in order to create sufficient currency for economic activity to continue. We are participants in a financial pyramid scheme which demands "growth" in order to stave off collapse and this generates pressure for more population. The “growth” which matters most is the dollar value of new loans. I will attempt a brief explanation.

Every time a loan is made, new money is created and goes into circulation. We know this is the case because nobody's bank balance decreases - however, the newly created money soon finds its way into bank accounts. Think about this for a while - nobody's bank account decreases when new loans are issued, but total deposits increase. It is apparent that every bank loan creates new money just as effectively as if government had “printed” the cash. Around 97% of all the money in circulation is created privately out of nothing in this manner and is currently accruing interest on its very existence.

Each dollar of privately minted money, printed on disc-drives, cheque books and plastic cards, creates much more debt than the original dollar. After twenty odd years, depending on the interest rate, a typical housing loan might require repayment of around twice the original principal. Those additional dollars can only come from the pool of money in circulation. With every dollar created eventually removing two dollars from circulation, the pool must constantly be replenished with new debt money created by new loans to subsequent generations of borrowers.

To maintain liquidity in today's economy, the growth of debt is essential. Paying off old debt and interest is such a drain on the economy, that new debts have to grow faster than the total repayments of past debts with interest. If new loans are not issued at a sufficiently rapid rate, the money supply soon "dries up" and there is a "liquidity crisis", a GFC or a Great Depression. The ever growing snowball of debt is simply passed on and on until, one day, it is too big.

It is unfortunate that the ability to charge an economic rent on the community's currency was privatised. This accident of history amounts to a design error which forces debt to grow faster than interest rates and to continue growing, under the threat of economic collapse. The debt pyramid must keep expanding or it will collapse, as any pyramid scheme eventually must. The first to handle the fresh, newly printed money for home loans are the property developers, but state governments also depend directly and indirectly on this new money for revenue.

The expansion of debt can only be successful in a growing economy where each successive generation is willing to take on loans far in excess of the previous generation. If there is a growing population, this is much easier to achieve, because the growing debt burden is shared amongst a larger number of punters. Otherwise, the individual burden may become too great to bear, newcomers may balk or default, the music stops and the economy falls over.

Rising household incomes are needed to service ever increasing housing loans. One wage used to be enough, but now two incomes are required for most new home loans. Limits are being stretched all over the global economy as 200 years of fossil powered growth winds down.

In the meantime, provided there are no glitches in the supply of critical resources, the economy will be more stable if growing numbers of young borrowers are willing and able to take on the increasing levels of debt needed to prop up the system and enrich those higher up the pyramid. These unsustainable design flaws built into our banking and finance systems will have to be fixed before our society can be free of this artificial dependence on debt and population growth.

Currency issuing sovereign governments grant private banks their licence to “print” money, so why don’t governments create money themselves? Who is the boss? If governments generate more of the money supply, with or without creating debt, they would be wise to restrain bank lending. Banks don’t like this and have convinced the culture that government should not “print money” but borrow from banks. Ironically, bank “bail outs” are government issued money.

Ultimately, it matters that money systems maintain some correspondence with reality. Until the structure of the monetary system is repaired, we can expect “hiccups” like the GFC to become regular events following on the heels of oil price spikes or shortages of other critical resources. Price spikes for oil remind us that the world is not producing enough electric vehicles, providing good quality public transport and building big renewable energy systems fast enough. These are the preferred ways to ease global demand for oil and keep consumption below the falling maximum rate of extraction. Action on climate change which prevented oil shocks, would save the economy and provide time to radically restructure finance systems for sustainability.

In the face of these increasingly obvious challenges, traditional power structures block action and oblivious governments place their trust in the wisdom of an oracle dedicated to the love of money. Whether it is faith or an excuse to abrogate responsibility, they forget that The Market cannot influence the laws of nature and, in this universe, exponential growth never lasts.

Richard Corin

PS - from *AGENDA FOR A NEW ECONOMY: FROM PHANTOM WEALTH TO REAL WEALTH*

Why Debt and the Economy Have to Grow - by David Korten (economist)

Because of how our financial system is designed, the economy has to grow or collapse. The growth may or may not provide employment, meet real needs, or reduce poverty. The primary reason that the economy must grow or collapse is the demand of the banking system for its pound of flesh.

Because the bookkeeping entry a bank makes when it issues a loan creates only the

principal, the economy must grow fast enough to generate sufficient demand for loans in order to create the money required to make the interest payments. Otherwise debts go into default and the financial system and the economy collapse. The demand for the eventual repayment with interest of nearly every dollar in circulation virtually assures that the economy will fail unless the GDP and income inequality are constantly growing.