

## Carbon Debt - How we can learn from the Credit Crisis

As the grip of the global credit crunch tightens, we should step back and learn from our mistakes in the financial markets to develop a better understanding of how to approach the gathering ecological “crunch”.

Our current global financial crisis is the result of our access to cheap debt over the past decade. This debt-fuelled binge has led to bubbles in housing, financial markets and commodities. Bubbles will inevitably be burst, forcing us to remember the key lesson that we rarely acknowledge until it is too late - all debt must be repaid, and with interest.

The size of this current economic problem is expected to be enormous. Figures in the order of \$500bn are mentioned with significant implications for the efficient functioning of our global economy.

How far will it go? When will it end? That we cannot determine, yet one thing is certain – it will be painful, and will continue for some time.

However, this economic episode should be embraced as a way for us to learn from experience the issues associated with the accumulation of significant levels of cheap debt. It should be a warning to us that in future we must be extra vigilant about the creation and repayment of debt that is beyond our current and future means.

Hence, with the experience of the credit crisis still fresh in our minds and the development of a wider understanding of the ramifications of cheap, excessive debt it is almost inconceivable that we would not respond to the issue of climate change - *the* issue for us to deal with in the coming years, which is based upon cheap, excessive carbon debt.

We have been borrowing the Earth's resources for almost two centuries, and the consequences of this burgeoning carbon debt are starting to show as our Earth's dynamic system responds.

The Earth has been (and is) our ecological banker. We have been extracting the earth's capital in the form of oil, coal, gas and deforestation since c. 1750 to fuel our economic growth. However, the strains are showing on the natural balance sheet. This cannot continue without the Earth raising the interest to be repaid and starting to ask for some of the capital to be returned. Given the amount of time that has passed since this process of extraction began, we have some serious interest to repay. We are heavily in debt to the Earth.

The debt is quite simple to understand. Given the number of people on our planet, the Earth only has the natural capability to absorb and extract less than 1 tonne of carbon dioxide per person per year from the atmosphere and our oceans. Yet the global average is 4 tonnes, implying that our current carbon debt is over 3 tonnes per person per year – having accumulated to enormous proportions over the past two and a half centuries. It is also worth noting that this carbon debt profile is not evenly distributed. America and Britain are responsible for between 10 and 20 tonnes of carbon dioxide per person per year, whilst in some parts of the world such as Bangladesh and sub-Saharan Africa, the per capita emissions are closer to zero.

Our carbon debt has interest, and unlike monetary debt, we cannot just write it off. We must live with the consequences. Our carbon debt is a far more permanent and wide-ranging form of debt than its monetary counterpart. The current interest on this carbon debt is our commitment to a 2 deg Celsius increase in our global average surface temperature causing glacial melt and the resultant issues of fresh water shortages, river flooding; rising sea levels and coastal flooding; species extinction and much more.

To repay our debt, we need to reduce our use of the Earth's carbon resources to below 1 tonne per person, to both abate the worst natural effects of our carbon debt binge, and to minimise the economic consequences.

Sir Nicholas Stern warned in 2006 that early action to repay this debt by reducing our dependency upon carbon intensive fossil fuels and their resultant emissions would only cost approximately 1% of GDP per year. This equates to almost \$600bn a year – a cost equivalent to the size of our current global credit crunch every year!

This may sound large, but the cost of inaction could be far greater – between \$3trn and \$12trn a year. These figures make our current credit crisis a walk in the park, and Sir Nicholas Stern recently said that he felt he had underestimated the risks.

So, what are we to do? Will we learn from our current debt-fuelled credit crisis and understand that we need to create a system *now* to define the repayment of our carbon debt over the coming years, so as to minimise the future effects? Or, will we replay the same script as our current credit crisis, and ignore the warnings that we are living beyond our means and keep going until our natural bank, the Earth, says "Sorry, no more! I have nothing more to give and I'm going to have to change the rules of the game significantly to account for our past dealings – get hotter and make it difficult for humans to continue living as you live."

For me the answer is clear. We need to be diligent. We need to understand our carbon debt and start mapping out now how to repay the natural capital and interest that will avert the dangers we are being warned about.

Do we really want to burden our children with the excesses of our carbon debt-fuelled lives?

It's our responsibility to enable our future generations to live free of carbon debt.

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July 2008