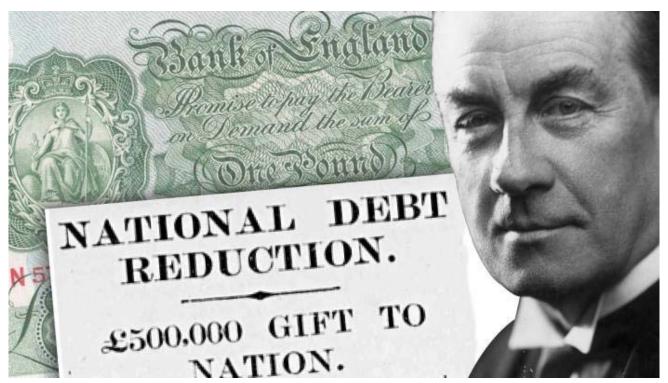
#### **Opinion Undercover Economist**

## The best way to solve a problem is to wait a while

A trust fund aimed at clearing UK debt highlights the merits of playing the long game

### **TIM HARFORD**



Stanley Baldwin had urged Britons to donate to reduce the national debt. The half a million pound gift came when he was prime minister in 1928 © FT montage; Hulton archive; Getty Images

Tim Harford YESTERDAY

In 1928, an anonymous donor resolved to clear the UK's national debt and gave £500,000 with that end in mind. It was a tidy sum — almost £30m at today's prices — but not nearly enough to pay off the debt. So it sat in trust, accumulating interest, for nearly a century.

The trust now contains  $\underline{\text{£400m}}$ , and we have decided we are no longer willing to wait. The British government has gone to court to get the money now, a move that eloquently captures the payday-loan mood it is displaying in its  $\underline{\text{Brexit}}$  negotiations. No gain is too small, no price too great, as long as the bill comes later.

What might we achieve if only we were willing to play the truly long game?

That anonymous trust fund suggests an instructive thought experiment. Let us assume that it grows 3 per cent a year faster than the <u>UK economy</u> — not inconsistent with what Thomas Piketty has measured in the long run.

At that rate, the trust fund will double as a proportion of gross domestic product every 25 years. In

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just three centuries, it will have grown 4,000-fold relative to the economy as a whole. As long as the debt stays roughly in proportion to national income — not an outrageous assumption — then the trust fund would be sufficient to pay off the debt a mere four centuries after the original bequest.

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Perhaps that is too optimistic. No matter. If four centuries are not enough, why not five? It is surprising how many problems will simply solve

themselves if we wait long enough.

This analysis is glib, I admit. Over such a long time horizon there is always a risk that bad luck strikes and the trust fund is wiped out entirely. If the fund falls to zero at any point, all the compound interest in the world is useless after that.

A wise investor may be able to avoid such an outcome: in 1956, John L Kelly, a mathematician at Bell Labs, derived a formula we now know as the <u>Kelly criterion</u>. It was designed to allow an investor or gambler with a known edge to maximise her compound rate of return, while avoiding the risk of bankruptcy.

Yet even Kelly's criterion only works if the risks are correctly understood. Kelly himself survived a plane crash as a Navy pilot, only to die of a brain haemorrhage at the age of 41. The world is full of risks. Can anyone guarantee that over the next 300 years both the UK trust fund and country will survive asteroid strikes, thermonuclear war or a deliberately engineered pandemic?

Perhaps we are getting ahead of ourselves. The imminent threat to the trust fund is the British government itself, which has decided that a tiny advantage is worth seizing now, since the costs will fall to someone else. (You may supply your own analogy at this point.)

All democratically elected governments struggle to see past the next election, but this one struggles to see past next Tuesday. In fairness, it often feels as if the next election may come sooner than that. And it is hard to take a truly long-term perspective, whether contemplating the future of human life or the prospect of cheesecake.

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The Astronomer Royal Sir Martin Rees wrote a book titled *Our Final Century*, warning of the existential threats arising from complex, interconnected modern systems. The book was renamed *Our Final Hour* in the US, perhaps because a century seemed like too much time to kill.

Economists and moral philosophers argue among themselves over how to account for the interests of future generations. The answer is far from obvious. It

# the original bequest

turns out to be crucial in pondering a rational response to slow-burning disasters such as <u>climate</u> <u>change</u> — assuming that anyone cares about a

rational response, which seems a forlorn hope.

The Chinese are sometimes admired as fabulously long-term thinkers, although sometimes I wonder whether that is merely the mythologising of westerners. (Zhou Enlai impressed many in 1972 when as Chinese premier he said that it was "too early to tell" about the consequences of the French Revolution. He was under the impression that the question was about the student uprising in Paris in 1968.)

No, those who genuinely show patience are rare. There is Warren Buffett, of course — his favourite holding period, "forever", has served him well. And the Long Now Foundation, based in San Francisco and founded in the year "01996", which supports ideas such as a modern Rosetta stone designed to preserve languages through time and catastrophe.

I am pleased that a few souls are willing to take the long view. Perhaps the champion is Anders Sandberg, a researcher at Oxford university's Future of Humanity Institute. Dr Sandberg points out that since computation requires far less energy at ultra-cold temperatures, an advanced civilisation could get much more done with the resources available if it first waited a few trillion years for the entire universe to approach absolute zero.

This resolves the famous <u>Fermi paradox</u>: since the universe is so big, why haven't aliens appeared from somewhere?

The answer: they're quietly having a trillion-year siesta, waiting for the cool of the twilight of the cosmos.

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