

THE STAG HUNT: DEFLATION AS A
COLLECTIVE ACTION PROBLEM

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Deflation. It's the economists' dread word, and in the last week it has leapt from a dusty back corner of their lexicon to the front pages of our newspapers. Deflation refers to a sustained drop in prices caused by falling economic demand – a situation where unemployment of both people and capital soars and where the standard monetary tools that policymakers use in response, like interest rate cuts, stop working.

In the worst case, deflation becomes its own cause. People become afraid their incomes might fall in the future. Or they see their savings being ravaged by the stock market collapse. So they stop spending and instead hoard their money. As demand for goods and services drops, companies' profits plummet, leading to layoffs, reduced working hours, and yet more declines in stock prices. The fear of lost income becomes a self-fulfilling prophecy, and people cut their spending further. Once the downward spiral starts, it's maddeningly hard to stop. People expect prices will keep falling, so they decide to put off their spending, because they think things will be cheaper in the future.

The world economy appears to be on the cusp of exactly this kind of vicious cycle. It has entered a synchronized downturn, with economic demand falling fast in every region.

Most policymakers and commentators understand that deflationary cycles are self-reinforcing. But few grasp another key characteristic: deflationary cycles are, at their core, what social scientists call a collective action problem. And this characteristic has important implications for how we should respond.

The logic of this particular collective action problem plays itself out in our everyday lives. Recently my wife, Sarah, and I were sitting at our kitchen table discussing whether we should renovate our family room this coming spring. Perhaps we should hold off until the economic storm clouds clear, we thought. But then we talked about how such decisions to be prudent, when added up across millions of households and companies, are the main reason why the current

economic crisis is getting worse so fast. Yet we also recognized that our family – by itself – can't rescue the economy.

Our conversation cut to the core of the paradox. When everyone else is pulling back, individual families and companies must protect their own interests too. But in this economic crisis, behavior that's rational for a single family or company is, when everyone behaves the same way, collectively irrational.

Collective action problems come in many forms, and social scientists have developed a whole subfield of research – “game theory” – to try to understand them better. The particular collective action problem we face right now is called a “stag hunt,” after a dilemma described by the eighteenth century Swiss philosopher Jean-Jacques Rousseau.

Rousseau wrote about a hypothetical situation in which two hunters must cooperate to kill a deer. If a rabbit hops by one of the hunters, he would probably pursue the rabbit “without scruple,” said Rousseau. Although the rabbit makes a less satisfying meal, at least it's a guaranteed meal. On the other hand, the deer isn't a guaranteed meal, because neither hunter can be absolutely sure that he can trust the other to help kill it. In the end, though, when one hunter chases a rabbit, collectively both hunters are worse off: while one gets the rabbit, both lose any prospect of getting a deer.

For families and companies in this economic crisis, the choice isn't between a deer and a rabbit, of course, but between spending and saving. Because we can't trust other people to spend, we do the economic version of chasing the rabbit – we keep our money in our pockets. But this individually cautious behavior worsens the collective economic crisis, and as the crisis gets worse, we're even more afraid and even less willing to trust others to spend.

The main reason deflationary cycles are so diabolically hard for policymakers to stop is that governments can't force people to trust each other. Instead, all they can do is inject spending directly into the economy, through increased unemployment benefits (because the jobless spend almost all the money they get) and infrastructure investment, and hope that by putting a floor under economic demand, people and companies will eventually become less fearful and start to spend again.

Governments need to move fast, because this crisis, which has taken several forms already, is about to change form again. In the last few months, we've move from a seizing up of credit markets to the collapse of economic demand in the mainstream economy. Soon we could see a string of sovereign defaults of poor and emerging economies that can't meet their debt obligations.

Even worse, hundreds of millions of previously poor people from Hungary and Turkey to India and China -- recent arrivals in the global middle class who've benefited from an economic boom fueled by endless quantities of cheap credit -- are about to see their standard of living fall of a cliff. Around the world, Western-style capitalism will be discredited, as it's perceived to have wiped out people's jobs and life savings. Our global financial crisis could then morph into a global political crisis, as extremists of all stripes -- neo-Nazis in Eastern Europe, hyper-nationalists in China, and Hindu fundamentalists in India -- accumulate popular support and power.

The following was not published in The Globe and Mail.

GAME THEORETIC REPRESENTATION OF A DEFLATIONARY TRAP

Key: Players move simultaneously without communicating, and each has the choice between Spending/Lending or Saving. The numbers in the cells represent the ordering of the outcomes from best (4) to worst (1). By convention, the first number in each pair in a cell is the number for Player A, and the second is the number for Player B.

The Stag Hunt is a game with two stable equilibria: the 4,4 cell and the 2,2 cell. The world economy is currently shifting from the former to the latter.

		Player B	
		Spend/ Lend	Save
Player A	Spend/ Lend	4,4	1,3
	Save	3,1	2,2