Imagine for a moment that you are on board a sailing ship in the middle of the ocean. You wake in the middle of the night with an uneasy feeling, as if trouble is brewing. You get dressed and go on deck. It’s a clear night with a steady wind, and you can see some distance over the water; as you glance off to starboard, though there is no land in sight, you are horrified to see waves crashing over black jagged rocks not far from the ship, setting the sea afoam.

You hurry aft to the midship bridge to warn the crew members on watch, and find the first mate and several other crew members sitting there, calmly smoking their pipes and paying no attention to the rocks. When you ask them about the rocks, they deny that any such thing exists in that part of the ocean, and insist that what you’ve seen is an optical illusion common in those latitudes. One of the crew members takes you into the chart room and shows you a chart with the ship’s progress marked on it. Sure enough, there are no rocks anywhere near the ship’s course, but as you glance over the chart you realize that there are no rocks marked anywhere else, either, nor any reefs, shoals or other hazards to navigation.
You leave the chart room, shaking your head, and glance at the compass in the binnacle. This only increases your discomfort; its needle indicates that magnetic north ought to be off the port bow, but a glance up at the sky shows the Little Dipper dead astern. When you mention this to the crew members, though, they roll their eyes and tell you that you obviously haven’t studied navigation. You leave the midship bridge and walk forward, looking ahead to see where the ship is going, and sure enough, the pale gleam of rough water around rocks shows up in the distance.

It would be comforting if this scenario was just a nightmare; unfortunately, it mirrors one of the most troubling realities of contemporary life. The metaphoric charts and compass used nowadays to guide most of the important decisions made by the world’s nations come from the science of economics, and the policy recommendations presented by economists to decision makers and ordinary people alike consistently fail to provide useful guidance in the face of some of the most central challenges of our time.

This may seem like an extreme statement, but the facts to back it up are as close as the nearest Internet news site. Consider the way that economists responded — or, rather, failed to respond — to the gargantuan multinational housing boom that imploded so spectacularly in 2008, taking much of the global economy with it.¹ This was as close to a perfect example of a runaway speculative bubble as you’ll find anywhere in recent history. The extensive literature on speculative bubbles, going back all the way to Rev. Charles Mackay’s *Extraordinary Popular Delusions and the Madness of Crowds*, made it no challenge at all to recognize that the housing boom was simply another example of this species. All the classic symptoms were present and accounted for: the dizzying price increases, the huge influx of amateur investors, the giddy rhetoric insisting that prices could and would keep on rising forever, the soaring rate of speculation using borrowed money and more.
By 2005, accordingly, a good many people outside the economics profession were commenting on parallels between the housing bubble and other speculative binges. By 2006 the blogosphere was abuzz with accurate predictions of the approaching crash, and by 2007 the final plunge into mass insolvency and depression was treated in many circles as a foregone conclusion—as indeed it was by that time. Keith Brand, who founded the lively Housing-Panic blog in 2005 to publicize the approaching disaster, and kept up a running stream of acerbic commentary straight through the bubble and bust, summarized those predictions with a tag line that could serve as the epitaph for the entire housing frenzy: “Dear God, this is going to end so badly.”

Yet it’s a matter of public record that among those who issued these warnings, economists were as scarce as hen’s teeth. Rather, most economists at the time dismissed the idea that the housing boom could be what it patently was, a disastrous speculative bubble. Nouriel Roubini, one of the few exceptions, has written wryly about the way he was dismissed as a crank for pointing out what should have been obvious to everybody else in his profession. For whatever reason, it was not obvious at all; the vast majority of economists who expressed a public opinion on the bubble while it was inflating insisted that the delirious rise in real estate prices was justified, and that the exotic financial innovations that drove the bubble would keep banks and mortgage companies safe from harm. These comforting announcements were wrong. Those who made them should have known, while the words were still in their mouths, that they were wrong. No less an economic luminary than John Kenneth Galbraith pointed out many decades ago that in the financial world, the term “innovation” inevitably refers to the rediscovery of the same small collection of emotionally appealing bad ideas that always lead to economic disaster when they are applied to the real world. Galbraith’s books *The Great Crash 1929* and *A Short History of Financial Euphoria*, which chronicle the
repeated carnage caused by these same bad ideas in the past, can be found on the library shelves of every school of economics in North America, and anyone who reads either one can find every rhetorical excess and fiscal idiocy of the housing bubble faithfully duplicated in the great speculative binges of the past.

If the housing bubble were an isolated instance of failure on the part of the economics profession, it might be pardonable, but the same pattern of reassurance has repeated itself as regularly as speculative bubbles themselves. The same assurances were offered—in some cases, by the same economists—during the last great speculative binge in American economic life, the tech-stock bubble of 1996–2000. Identical assurances have been offered by the great majority of professional economists during every other speculative binge since Adam Smith’s time. More than two hundred years of glaring mistakes would normally be considered an adequate basis for learning from one’s errors, but in this case it has apparently been insufficient.

Excerpt continued on next page
Undead Money

Like most complex intellectual superstitions—consider astrology in the Middle Ages and Renaissance—economics has a particularly strong following among the political classes. Like every other superstition, in turn, it has a solid core of pragmatic wisdom to it, but that core has been overlaid with a great deal of somewhat questionable logic which does not necessarily relate to the real cause and effect relationships that link the superstition to its benefits. My wife’s Welsh ancestors believed that the bowl of milk on the back stoop pleased the fairies and that’s why the rats stayed away from the kitchen garden; the economists of the twentieth century, along much the same lines, believed that expanding the money supply pleased—well, the prosperity fairies, or something not too dissimilar—and that’s why depressions stayed away from the United States.

In both cases it’s arguable that something very different was going on. The gargantuan economic boom that made America the world’s largest economy had plenty of causes. The strong regulations imposed on the financial industry in the wake of the Great Depression made a significant contribution (a point that will be explored in more detail later on in this book); the accident of political geography that kept America’s industrial hinterlands from becoming war zones, while most other industrial nations got the stuffing pounded out of them, also had more than a little to do with the matter; but another crucial point, one too often neglected in studies of twentieth-century history, was the simple fact that the United States at mid-century produced more petroleum than all the other countries on Earth put together. The oceans of black gold on which the US floated to victory in two world wars defined the economic reality of an epoch. As a result, most of what
passed for economic policy in the last 60 years or so amounted to attempts to figure out how to make use of unparalleled abundance. That’s still what today’s economists are trying to do, using the same superstitious habits they adopted during the zenith of the age of oil. The problem is that this is no longer what economists need to be doing. With the coming of peak oil — the peak of worldwide oil production and the beginning of its decline — the challenge facing today’s industrial societies is not managing abundance, but managing the end of abundance. The age of cheap energy now ending was a dramatic anomaly in historical terms, though not quite unprecedented; every so often, but rarely, it happens that a human society finds itself free from natural limits to prosperity and expansion — for a time. That time always ends, and the society has to relearn the lessons of more normal and less genial times. This is what we need to do now.

This is exactly what today’s economics is unprepared to do, however. Like the lowland Mayan elite at the beginning of their downfall, our political classes are trying to meet unfamiliar problems with overfamiliar solutions, and the results have not been good. Repeated attempts to overcome economic stagnation by expanding access to credit have driven a series of destructive bubbles and busts, and efforts to maintain an inflated standard of living in the face of a slowly contracting real economy have heaped up gargantuan debts. Nor have these measures produced the return to prosperity they were expected to yield, and at this point fingerpointing and frantic pedaling in place seem to have replaced any more constructive response to a situation that is becoming more dangerous by the day.

The sheer scale of the debt load on the world’s economies is an important part of the problem. Right now, the current theoretical value of all the paper wealth in the world — counting everything from dollar bills in wallets to derivatives of derivatives of derivatives of fraudulent mortgage loans in bank vaults — is several or-
ders of magnitude greater than the current value of all the actual goods and services in the world. Almost all of that paper wealth consists of debt in one form or another, and the mismatch between the scale of the debt and the much smaller scale of the global economy’s assets means exactly the same thing that the same mismatch would mean to a household: imminent bankruptcy. That can take place in either of two ways — most of the debt will lose all its value by way of default, or all of the debt will lose most of its value by way of hyperinflation — or, more likely, by a ragged combination of the two, affecting different regions and economic sectors at different times.

What that implies for the not-too-distant future is that any economic activity that depends on money will face drastic uncertainties, instabilities and risks. People use money because it gives them a way to exchange their labor for goods and services, and because it allows them to store value in a relatively stable and secure form. Both these, in turn, depend on the assumption that a dollar has the same value as any other dollar, and will have roughly the same value tomorrow that it does today.

The mismatch between money and the rest of economic life throws all these assumptions into question. Right now there are a great many dollars in the global economy that are no longer worth the same as any other dollar. Consider the trillions of dollars’ worth of essentially worthless real estate loans on the balance sheets of banks around the world. Governments allow banks to treat these as assets, but unless governments agree to take them, they can’t be exchanged for anything else, because nobody in his right mind would buy them for more than a tiny fraction of their theoretical value. Those dollars have the same sort of weird half-existence that horror fiction assigns to zombies and vampires: they’re undead money, lurking in the shadowy crypts of the world’s large banks like so many brides of Dracula, because the broad daylight of the market would kill them at once.
It’s been popular for some years, since the sheer amount of undead money stalking the midnight streets of the world’s financial centers became impossible to ignore, to suggest that the entire system will come to a messy end soon in some fiscal equivalent of a zombie apocalypse movie. Still, the world’s governments are doing everything in their not inconsiderable power to keep that from happening. Letting banks meet capital requirements with technically worthless securities is only one of the maneuvers that government regulators around the world allow without blinking. Driving this spectacular lapse of fiscal probity, of course, is the awkward fact that governments — to say nothing of large majorities of the voters who elect them — have been propping up budgets for years with their own zombie hordes of undead money.

The only response to the current economic crisis most governments can imagine involves churning out yet more undead money, in the form of an almost unimaginable torrent of debt; the only response most voters can imagine, in turn, involves finding yet more ways to spend more money than they happen to earn. So we’re all in this together, guiding our actions by superstitions that no longer have any relation to the world in which we live. Everybody insists that the walking corpses in the basement are fine upstanding citizens, and we all pretend not to notice that more and more people are having their necks bitten or their brains devoured.

As long as most people continue to play along, it’s entirely possible that things could stumble along this way for quite a while, with stock market crashes, sovereign debt crises and corporate bankruptcies quickly covered up by further outpourings of unpayable debt. The problem for individuals and families, though, is that all this makes money increasingly difficult to use as a medium of exchange or a store of wealth. If hyperinflation turns out to be the mode of fiscal implosion du jour, it becomes annoying to have to sprint to the grocery store with your paycheck before the price of milk rises above one million dollars a gallon; if we get deflationary
contraction instead, business failures and plummeting wages make getting any paycheck at all increasingly challenging. In either case pensions, savings and insurance policies are as good as lost.

The act of faith that leads policy makers today to think that policies that failed last year will succeed next year is only part of the problem. The superstitions that lead so many intelligent people to think that our problems can be solved by pursuing new and expensive technological projects are another part. There are technologies that can help us right now, as I hope to show later on in this book, but they fall on the other end of the spectrum from the fusion reactors, solar satellites and plans to turn all of Nevada into one big algae farm that get so much attention today. Local, resilient, sustainable and cheap: these need to be our keywords for technological innovation just now. There are plenty of technological solutions that answer to that description, but again, our superstitions stand in the way.

In an age after abundance, the most deeply rooted of our superstitions — the belief that Nature can be ignored with impunity — is also the most dangerous. It’s only fair to point out that for most people in the industrial world, for most of a century now, it has been possible to get away with this kind of thinking more often than not; the same exuberant abundance that produced ski slopes in Dubai and fresh strawberries in British supermarkets in January made it reasonable, for a while, to act as though whatever Nature tossed our way could be brushed aside. In an age after abundance, though, this may be the most dangerous superstition of all. The tide of cheap abundant energy that has defined our attitudes as much as our technologies is ebbing now, and we are rapidly losing the margin of error that made our former arrogance possible.

As that change unfolds, it might be worth suggesting that it’s time to discard our current superstitions concerning economics, energy and Nature, and replace them with a more functional approach to these things. A superstition, once again, is an observance
that has become detached from its meaning, and one of the more drastic ways this detachment can take place is through a change in the circumstances that make that meaning relevant. This has arguably happened to our economic convictions, and to a great many more of the commonplaces of modern thought; it’s simply our bad luck, so to speak, that the consequences of pursuing those superstitions in the emerging world of scarcity and contraction are likely to be considerably more destructive than those of planting by the signs or leaving a dish of milk on the back step.

The remaining chapters of this book will attempt to sketch out some of the ways our current economic superstitions might best be replaced with more productive ways of understanding the production and exchange of goods and services among human beings. To make any progress toward that goal, however, it’s necessary to realize that the production and exchange of goods and services among human beings is a subset, and a fairly small one, of a much larger economy that embraces the entire natural world. To grasp that, it’s necessary to take the challenge to conventional economic thought a good deal deeper than we have taken it so far.