

INTRODUCTION



TOO IMPORTANT TO BE LEFT TO THE BANKERS

FOR MANY DECADES BEFORE THE 2007–2008 CRISIS, finance got bigger relative to the real economy. Its share of the U.S. and UK economies tripled between 1950 and the 2000s. Stock-market turnover increased dramatically as a percentage of GDP. On average across advanced economies private-sector debt increased from 50% of national income in 1950 to 170% in 2006.¹ Trading in foreign exchange grew far faster than exports and imports; trading in commodities far faster than commodity production. Capital flows back and forth among countries grew far more rapidly than long-term real investment. From 1980 on, the growth was turbocharged by the financial innovations of securitization and derivatives; by 2008 there were \$400 trillion of derivative contracts outstanding.

This growth rang few alarm bells. Most economists, financial regulators, and central banks believed that increasing financial activity and innovation were strongly beneficial. More complete and liquid markets, it was confidently asserted, ensured more efficient allocation of capital, fostering higher productivity. Financial innovations made it easier to provide credit to households and companies, enabling more rapid economic growth. Empirical studies suggested that “financial deepening”—an increase in private-sector debt as a percentage of GDP—made economies more efficient. More sophisticated risk-control systems, meanwhile, ensured that complexity was not at the expense of stability, and new systems for originating and distributing credit, rather than holding it on bank balance sheets, were believed to be dispersing risks into the hands of those best placed to manage it.

Not only, moreover, had the financial system become safer and more efficient: economies had also become more stable because of better central

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bank policies based on sound economic theory. Provided independent central banks ignored short-term political pressures and achieved low and stable inflation, a “Great Moderation” of steady growth seemed assured. Robert Lucas, then president of the American Economic Association, concluded in 2003 that “the central problem of depression prevention has been solved, for all practical purposes, and has in fact been solved for many decades.”²

The Great Moderation ended in the crisis of 2007–2008, and in a severe post-crisis “Great Recession.” The economic harm caused by this crisis has been enormous. Millions of people lost homes because of unaffordable debts; millions also suffered unemployment. The percentage of the U.S. population that is employed fell to a 35-year low, and despite limited recovery after 2013 is still far below the pre-crisis level.³ The Spanish unemployment rate grew from 8% in 2007 to 26% in 2013 and has so far fallen only to 24%.⁴ In the United Kingdom surprisingly strong jobs growth was accompanied until 2014 by falling real wages, and per capita income remains below its 2007 peak. Public debts have increased dramatically, and fiscal austerity programs have been introduced in response. Economic recovery is now under way, but in the United States it has been weak, in the United Kingdom dangerously unbalanced, and in the eurozone anemic. The fact that we are now slowly recovering from a deep and long-lasting recession must not blind us to the reality that the 2007–2008 crash was an economic catastrophe.

This catastrophe was entirely self-inflicted and avoidable. It was not the result of war or political turmoil, nor the consequence of competition from emerging economies. Unlike the problems of stagflation—simultaneous high inflation and high unemployment—which afflicted several developed countries in the 1970s, it did not derive from underlying tensions over income distribution, from profligate governments allowing public deficits to run out of control, or from powerful trade unions able to demand inflationary pay claims.

Instead this was a crisis whose origins lay in the dealing rooms of London and New York, in a global financial system whose enormous personal rewards had been justified by the supposedly great economic benefits that financial innovation and increased financial activity were delivering.

Many people are therefore legitimately angry about individual banks and bankers, and are concerned that few have been punished. Many bankers lent money recklessly to U.S. subprime mortgage borrowers or to Irish, Spanish, or British real estate developers. And some acted dishonestly, manipulating the LIBOR⁵ rate or knowingly selling securities whose value they doubted to investors whose acumen they disparaged.

But important though the incompetence and dishonesty of some bankers was, it was not a fundamental driver of the crisis, any more than the misbehavior of individual financiers in 1920s America was of more than peripheral importance to the origins of the 1930s Great Depression.

As for regulatory reform, much focus has been placed on making sure that no bank is “too big to fail” and that taxpayers never again have to bail out the banks as they did in autumn 2008. That is certainly very important. But focus on the too-big-to-fail problem also misses the vital issue. Government bailout costs were the small change of the harm produced by the financial crisis. In the United States the total direct cost of government support for the banking system is likely to be negative: the Federal Reserve has sold all its capital injections into banks at a profit, and made a positive return on its provision of liquidity to the financial system. Across the advanced economies overall bailout and support costs will be at most 3% of GDP.⁶

The full economic cost of the crash and post-crisis recession is far bigger. On average in advanced economies public debt increased by 34% of GDP between 2007 and 2014.⁷ But even more importantly, national incomes and living standards in many countries are 10% or more below where they could have been and are likely to remain there, not for a year, but for year after year in perpetuity. It is on this loss we should focus, and such a loss could be suffered again even if we managed to create a regulatory regime that ensured we never again had to put public money into failing banks.

Neither bankers threatened by prison nor a no-bailout regime will guarantee a more stable financial system, and a fixation on these issues threatens to divert us from the underlying causes of financial instability.

The fundamental problem is that modern financial systems left to themselves inevitably create debt in excessive quantities, and in particular

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debt that does not fund new capital investment but rather the purchase of already existing assets, above all real estate. It is that debt creation which drives booms and financial busts: and it is the debt overhang left over by the boom that explains why recovery from the 2007–2008 financial crisis has been so anemic.

But from the point of view of private profit-maximizing banks, even when run by good competent honest bankers, debt creation that is excessive in aggregate can seem rational, profitable, and socially useful. It is like a form of economic pollution. Heating a house or fueling a car is socially valuable, but the carbon emissions produced have a harmful effect on the climate. Lending a family money to buy a house can be socially useful, but too much mortgage debt in total can make the economy unstable. So debt pollution, like environmental pollution, must be constrained by public policy.

One objective of this book is therefore to define the policies needed to prevent excessive debt creation leading to future financial crises: these policies need to go far beyond current regulatory reforms. The second is to propose how to escape from the debt overhang which past policy errors have bequeathed and which continues to depress economic growth across the developed world: doing that will require policies previously considered taboo. Finally I aim to identify why mainstream modern economics failed to see the crisis coming, and why it so confidently asserted that increasing financial activity had made the world a safer place. To do that, we need to return to the insights about credit, money, and banks on which an earlier generation of economists focused, but which modern economics has largely ignored.

Inefficient Markets and Dangerous Debt

All financial markets are to different degrees imperfect and subject to surges of exuberance and then despair, which take prices far from rational equilibrium levels and can result in inefficient misallocation of capital resources. That reality, explored in Chapter 2, means that more financial activity is not always beneficial, and should make us very wary of strongly free market approaches to financial regulation. Free financial markets can generate more trading activity than is socially beneficial: so

financial transaction taxes are in principle justified. And financial firms enjoy more opportunities than in other sectors of the economy to make money without truly adding value—to extract economic “rent.” Policy interventions to protect investors against exploitation are justified and often essential. Free financial markets alone, moreover, are not sufficient to ensure adequate support for the investment and innovation that drive forward economic progress: governments have often played important roles.

But the inevitable inefficiency and irrational volatility of financial markets does not in itself justify a fundamental shift in policy approach. Even imperfect and inefficient markets can still play a valuable economic role. The irrational exuberance of the Internet boom and bust of the late 1990s and early 2000 certainly produced large economic waste, but it also helped foster the development of the Internet. A perfect planner could have done better but no such perfect planner exists. And in her absence, financial markets will usually allocate capital better than governments will.

We must therefore focus not on some unattainable perfection, but on the most important causes of the 2007–2008 crisis and post-crisis recession. Those lay in the specific nature of debt contracts, and in the ability of banks and shadow banks to create credit and money.

Many religions and moral philosophies have been wary of debt contracts. Aristotle described money lending as the “most hated sort” of wealth getting, since “it makes the gain out of money itself and not from the natural object of it.” Islam condemns debt contracts as inherently unfair: they make the borrower pay a fixed return even if the economic project which the borrowing financed has failed. But many economists and economic historians argue that debt contracts play a crucial role in capitalist growth, and their arguments are convincing. The very fact that debt contracts deliver a predefined return almost certainly made it possible to mobilize savings and capital investment—whether for nineteenth-century railways or twentieth-century manufacturing plants—which would not have been forthcoming if all investment contracts had to take a more risky equity form.

But the fixed nature of debt contracts also has inevitable adverse consequences. As Chapters 3 and 4 explain, it means that debt is likely to be created in excessive quantities. And it means that the more debt there is

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in an economy, beyond some level, the less stable that economy will inevitably be.

The dangers of excessive and harmful debt creation are inherent to the nature of debt contracts. But they are hugely magnified by the existence of banks, and by the predominance of particular categories of lending. Read almost any economics or finance textbook, and it will describe how banks take money from savers and lend it to business borrowers, allocating money among alternative capital investment projects. But as a description of what banks do in modern economies, this is dangerously fictitious for two reasons. First, because banks do not intermediate already existing money, but *create* credit, money, and purchasing power which did not previously exist.⁸ And second, because the vast majority of bank lending in advanced economies does not support new business investment but instead funds either increased consumption or the purchase of already existing assets, in particular real estate and the urban land on which it sits.

As a result, unless tightly constrained by public policy, banks make economies unstable. Newly created credit and money increases purchasing power. But if locationally desirable urban real estate is in scarce supply, the result is not new investment but asset price increases, which induce yet more credit demand and yet more credit supply. At the core of financial instability in modern economies, this book argues, lies the interaction between the infinite capacity of banks to create new credit, money, and purchasing power, and the scarce supply of irreproducible urban land. Self-reinforcing credit and asset price cycles of boom and bust are the inevitable result.

Such cycles are inherent to any highly leveraged banking system. But they can also be generated by the complex chains of nonbank debt origination, trading, and distribution—“the shadow banking system”—which developed ahead of the 2007–2008 crisis. Indeed, as Chapter 6 argues, the development of more complex and liquid markets in credit securities increased the dangers of volatility; and the very techniques that were supposed to control risk actually increased it. If debt can be a form of economic pollution, a more complicated and sophisticated debt creation engine can make the pollution worse. The net effect of pre-crisis financial innovation was to give us the credit cycle on steroids, and the crash of 2008.

The depth of the recession that followed, however, is explained less by the internal features of the financial system than by the simple fact that after years of rapid credit growth, many companies and households were overleveraged. Once confidence in rising asset prices cracked, they cut investment and consumption in an attempt to reduce their debts. That attempted deleveraging in turn has stymied economic recovery.

The crash itself was thus caused both by excessive real economy leverage and by multiple deficiencies in the financial system itself; but the main reason recovery has been slow and weak is not that the financial system is still impaired, but the scale of the debt burden accumulated over the preceding decades.

*The Conundrum: Do We Need Ever More Credit
to Grow Our Economies?*

For 50 years, private-sector leverage—credit divided by GDP—grew rapidly in all advanced economies; between 1950 and 2006 it more than tripled. But that poses a crucial question: was this credit growth necessary?

Leverage increased because credit grew faster than nominal GDP. In the two decades before 2008 the typical picture in most advanced economies was that credit grew at about 10–15% per year versus 5% annual growth in nominal national income. And it seemed at the time that such credit growth was required to ensure adequate economic growth. If central banks had increased interest rates to slow the credit growth, our standard theory suggests that that would have led to lower real growth. The same pattern and the same policy assumptions can now be seen in many emerging economies, including in particular China: each year credit grows faster than GDP so that leverage rises, and that credit growth appears necessary to drive the economies forward.

But if that is really true, we face a severe dilemma. We seem to need credit to grow faster than GDP to keep economies growing at a reasonable rate, but that leads inevitably to crisis, debt overhang, and post-crisis recession. We seem condemned to instability in an economy incapable of balanced growth with stable leverage.

Is that true, and are future crises, as bad as 2007–2008, therefore inevitable? My answer is no, and I argue in this book that it should be

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possible and is essential to develop a less credit-intensive growth model. But I also argue that it will only be possible if we recognize and respond to three underlying drivers of increasing credit intensity.

The first is the increasing importance of real estate in modern economies. Real estate accounts for more than half of all wealth, for the vast majority of increases in wealth, and for the vast majority of lending in all advanced economies. For reasons which Chapter 5 explains, this is the inevitable consequence of trends in productivity, in the cost of capital goods, and in consumer preferences—that is, what people want to spend their income on. Real estate is bound to become more important in advanced economies: but that has consequences for financial and economic stability that need to be carefully managed.

The second driver is increasing inequality. Richer people tend to spend a lower proportion of their income than do middle income and poorer people. Increasing inequality will therefore depress demand and economic growth, unless the increased savings of the rich are offset by increased borrowing among middle or low income earners. In an increasingly unequal society, rising credit and leverage become necessary to maintain economic growth but lead inevitably to eventual crisis.

The third driver is global current-account imbalances unrelated to long-term investment flows and useful capital investment. These imbalances must inevitably be matched by the accumulation of unsustainable debt.

These three factors each result in a growth of debt that, contrary to the textbook assumption, does not support productive capital investment and does not therefore generate new income streams with which debt can be repaid. As a result, they drive increases in leverage that are not required to spur economic growth but will produce severe economic harm.

Financial and economic stability will only be attainable if we address these underlying factors.

What to Do—Building a Less Credit-Intensive Economy

This analysis of the causes of the crisis and post-crisis recession—set out in Parts I–III—poses two questions, which Parts IV and V address. First: how to build a less credit-intensive and more stable economy, reducing

the risks of future crises? Second: how to deal with the debt overhang inherited from a half-century of credit-intensive growth?

On the first, policies to ensure better run banks and more competent and honest bankers will never be a sufficient policy response. For if excessive debt is like pollution, its growth imposes on the economy a negative externality which it will *never* be sensible for profit-maximizing banks to take fully into account. Indeed as Chapter 10 argues, even lending which from a private perspective looks like and is “good lending”—loans that can be and are paid back in full—can still produce harmful instability for the whole economy. Even good competent bankers can, through the collective impact of their actions, make economies unstable. And as Chapter 6 describes, even the banks that most expertly applied the new techniques of Value at Risk modeling and mark-to-market accounting, and that survived 2007–2008 relatively unscathed, contributed just as much to the crisis as did the incompetents who went bust. Certainly we should use public policy sanctions—such as changes to directors’ responsibilities or to compensation rules—to penalize incompetent or reckless behavior. Certainly we should address the too-big-to-fail problem. But such policies will never be sufficient to achieve a more stable economy.

Nor, either, will central bank policy still operating within the assumption that we can have one objective—low inflation, and one instrument—the interest rate. In the decades before 2008 central bank practice and modern macroeconomic theory gravitated to the belief that achieving low and stable inflation was sufficient to ensure financial and macroeconomic stability, and that any dangers arising from credit creation would show up in present or prospective inflation. But a central argument of this book is that we can have excessive credit growth that *never* results in excessive inflation but still produces crisis, debt overhang, and post-crisis deflation. We enjoyed low and stable inflation in the pre-crisis “Great Moderation”: and in its aftermath inflation has remained below central bank targets. And yet excessive credit growth still produced a financial and economic disaster.

An alternative approach, favored by several economists associated with the Bank for International Settlements, would be to lean against excessive credit growth by increasing interest rates even when inflation is low and stable. This may sometimes be appropriate. But it can never be sufficient. For if we rely on interest rates alone to slow down credit booms,

we are likely, as Chapter 11 discusses, to do so at the expense of curtailing desirable investment and growth.

Policy must therefore address both the underlying causes of excessive credit creation and the inherent instability created by the nature of debt contracts and banks. Policies related to urban development and to the taxation of real estate can be as crucial to financial stability as the technical details of financial regulation or interest rate decisions. So too is action to address growing inequality and large global imbalances. But we must also recognize that financial instability is inherent in any financial system that is allowed to create credit, money, and purchasing power, and we must decide how radically to address that fact.

Several economists who lived through the boom of 1920s America and the subsequent Great Depression, such as Irving Fisher and Henry Simons, concluded that the answer had to be very radical. They believed that “fractional reserve banks,” which keep only a small fraction of their liabilities in central bank reserves or in notes and coins, and which as a result can create credit and money, were so inherently dangerous that they should be abolished. Milton Friedman made the same case in an article written in 1948. Instead they proposed that banks should hold reserves equal to 100% of their deposits and should play no role in the extension of credit, being instead simply custodians of money savings and providers of payment services. Loan contracts would still exist in the economy, but they would be outside the banking system and would involve no new creation of money and purchasing power.

For reasons I set out in Chapter 12, I believe that proposal is too extreme. But the powerful arguments that Fisher, Simons, and others put forward for 100% reserve banking certainly justify a program of reform far more radical than has been implemented so far. We need to impose far higher bank capital requirements than those set out in the Basel III standard, but we must also use reserve requirements directly to limit banks’ money creation capacity. We should change tax regimes to reduce the current bias in favor of debt finance and against equity. We should equip central banks as macroprudential regulators with powers to impose far larger countercyclical capital requirements than have so far been established. And we should place tough constraints on the ability of the shadow banking system to create credit and money equivalents, and must not be diverted from that path by spurious arguments about the dangers of inadequate liquidity in credit markets.

We should also use public policy to produce a different allocation of credit than would result from purely private decisions, deliberately leaning against the private bias toward real estate and instead should favor other potentially more socially valuable forms of credit allocation. Minimum risk weights that determine the capital needed to support different categories of lending should be set by regulators and not, as under current Basel agreements, on the basis of individual banks' assessments of risks. Constraints on mortgage borrowers through maximum loan-to-value (LTV) and loan-to-income ratios (LTI) have an important role to play. And we should be willing to place some limits on the free flow of international capital; some fragmentation of the global financial system can be a good thing.

Governments of emerging economies, meanwhile, observing the mess into which overconfidence in the merits of free market finance took the advanced economies, should be wary of the supposed benefits of rapid and comprehensive financial liberalization.

These proposals will be attacked as anti-growth and anti-market. But the argument that they are anti-growth is based on the delusion that we need rapid credit growth to achieve economic growth, and on a failure to recognize that rising leverage will lead inevitably to crisis and post-crisis recession. And the argument that they are anti-market ignores the reality that all financial markets are imperfect and banking markets are even more so.

Irving Fisher and Henry Simons were in general very strong proponents of free markets and were deeply suspicious of government intervention. But they believed that the processes of credit and money creation were so distinct and so inherently social in nature, that free market principles should not apply to them. They believed, rightly, that credit creation is too important to be left to the bankers: future policies need to reflect that fact.

Escaping the Debt Overhang Mess

But those policies were not in place before the crisis. Instead, credit was treated as a product like any other, its supply, demand, and allocation left almost entirely to free market forces.⁹ As a result we suffered a huge crisis and now face an enormous debt overhang, severely constraining

economic growth. While designing a better system for the future, we must therefore also navigate as best possible out of the debt overhang left by past policy mistakes. Doing so, I argue in this book, requires unconventional policies previously considered taboo.

Once economies have too much debt, it seems impossible to get rid of it. All we have done since the 2007–2008 crisis is to shift it around, from the private to the public sector, and from advanced economies to emerging economies, such as China. Total global debt to GDP, public and private combined, has continued to grow.

Faced with large inherited debt burdens, all policy levers appear to be blocked. Fiscal deficits can stimulate the economy, offsetting the deflationary effect of private deleveraging, but the result is increasing public debt to GDP, raising concerns about debt sustainability. As for ultra-easy monetary policies—interest rates close to zero and quantitative easing—they are certainly better than nothing: without them the advanced economies would have suffered still deeper recessions. But they can only work by reigniting the very growth in private credit that got us into our current problems: they create incentives for risky financial engineering, and their impact on asset prices exacerbates inequality. Reducing the value of debt through restructuring and writedowns, meanwhile, should certainly play a role, but can in some circumstances exacerbate deflationary pressures.

As a result we seem condemned to continued weak growth and fiscal austerity in the eurozone, to a mediocre recovery in the United States, and to an unbalanced recovery in the United Kingdom. Japan meanwhile, faces an ever-growing level of public debt that will never be repaid in the normal sense of the word. And as 2015 progresses, it looks increasingly likely that China's credit boom is ending in a potentially dangerous downturn.

It seems that we are out of ammunition—the policy magazine is empty. But if the problem we face is inadequate nominal demand, the magazine is never empty, and there is always one more option left. That option is “fiat” money creation, using central bank-printed money either to finance increased public deficits or to write off existing public debt. In Chapter 14 I argue that we should be willing to use that option. Failure to use it until now has produced an unnecessarily deep and long-lasting recession, and has increased the dangers of future financial instability, which inevitably result from continued very low interest rates.

My proposals will horrify many economists and policymakers, and in particular central bankers. “Printing money” to finance public deficits is a taboo policy. It has indeed almost the status of a mortal sin—the work of the devil. In September 2012, Jens Weidman, president of the Bundesbank, cited the story of Part II of Goethe’s *Faust*, in which Mephistopheles, agent of the devil, tempts the emperor to print and distribute paper money, increasing spending power and writing off state debts. Initially the money fuels an economic upswing, but, inevitably in Weidman’s eyes, the policy “degenerates into inflation, destroying the monetary system.”¹⁰

But it is striking that the mid-twentieth century economists who proposed the 100% reserve banking model, though as strongly committed to low inflation as they were to free markets, believed that fiat money creation was a *safer* way to stimulate nominal demand than relying on private credit creation.¹¹ Their belief sprang from deep reflection on the nature of credit and money, and on possible sources of nominal demand growth.

Between Debt and the Devil—A Choice of Dangers

There are essentially two ways to achieve nominal demand growth—through government money creation or through private credit growth. Each has advantages and disadvantages. Each can be beneficial up to a point but becomes dangerous in excess.

History provides many examples of governments that successfully stimulated sustainable economic growth with printed money. During the American Civil War, the U.S. Union government printed greenbacks to pay for the war without generating dangerously high inflation; Japanese finance minister Takehashi used central bank funded fiscal deficits to pull Japan’s economy out of depression in the early 1930s.¹² But the counterexamples of the Confederate states in the U.S. Civil War, Weimar Germany, and modern Zimbabwe illustrate the danger that once the option of printing money is first allowed, governments may print so much that they trigger hyperinflation.

Private credit can also be beneficial up to some point: for instance, strong arguments can be made that countries like India would benefit if they had higher levels of private credit to GDP. But free markets left to themselves will keep on creating private credit and money beyond the

optimal level and will allocate it in ways that generate unstable asset price cycles, crises, debt overhang, and post-crisis recession.

We face a balance of benefits and dangers, not a choice between perfection on one side and inevitable perdition on the other.

In the pre-crisis years economic orthodoxy was characterized by an anathema against government money creation and a totally relaxed attitude to whatever level of private credit free markets generated. But the latter led to a disaster from which many ordinary citizens throughout the world are still suffering. To prevent future crises we need far tighter controls on private credit creation than we had before the crisis. And to get out of the debt overhang, we need to break the taboo against the money finance of fiscal deficits, while ensuring that the option is not used to excess.

The Book's Structure

I set out my argument in five parts.

Part I describes the dramatic growth of the financial system and the confident pre-crisis assessment of its great benefits. It argues that all financial markets are in fact imperfect and potentially unstable. As a result, more finance is not necessarily good. But it also recognizes that even imperfect financial markets play a useful role and cautions against any delusion that we can or should pursue absolute perfection.

Part II focuses on the core driver of financial instability—excessive credit creation. It explains how banks and shadow banks create credit and money, and the positive as well as adverse consequences stemming from that ability. It identifies the underlying reasons that growth has been so credit intensive, and the severity of the debt overhang we now face as a result of excessive debt creation over the past half-century. It argues that we cannot leave either the quantity of credit created or its allocation among different uses entirely to free market forces. It concludes by describing the alternative potential sources of nominal demand growth, and the danger that without radical policies we could face a “secular stagnation” of chronically deficient demand.

Part III considers the role of credit creation in economic development and the impact of international capital flows. It describes how the

most successful developing countries used credit direction to foster rapid economic growth but also identifies the potential dangers in that approach. It rejects the pre-crisis orthodoxy that global financial integration is limitlessly beneficial and argues that some fragmentation of the international financial system is a good thing. It also considers the special case of the eurozone, whose flawed political design left it ill-equipped to deal with the consequences of unsustainable private credit creation and capital flows, and which cannot deliver economic success without radical reform.

Parts IV and V set out policy implications. Part IV describes the policies required to build a less credit-intensive economy in the future, reducing the risks of future crises. Part V addresses how to escape the debt overhang left behind by past policy mistakes and how to address the dangers of secular stagnation.

The Epilogue asks why modern economic theory left us so ill equipped to see the crisis coming, and how, in a sort of strange amnesia, it came to ignore the crucial insights of earlier generations of economists. It argues for a major change not just in policies, but also in ideas and in the approach to the social science of economics. We must, it suggests, avoid the “fatal conceit” that economics can deliver precise answers or that either the market or the state can deliver perfect results.