THE GREAT DISRUPTION
ADRIAN WOOLDRIDGE is The Economist's management editor and author of the Schumpeter column. He was previously based in Washington, DC, as the Washington bureau chief, where he also wrote the Lexington column, and served as The Economist's West Coast correspondent, management correspondent and UK correspondent. His books include The Company: A Short History of a Revolutionary Idea, God is Back and The Fourth Revolution: The Global Race to Reinvent the State.

BRETT RYDER illustrates Adrian Wooldridge's Schumpeter column in The Economist each week. Some of these illustrations have been reproduced in this compilation. ryder.brett@googlemail.com
THE GREAT DISRUPTION
How business is coping with turbulent times

Adrian Wooldridge
Contents

Introduction: the age of Schumpeter 1

Part 1 The gurus of disruption
  Taking flight 35
  Remembering Drucker 38
  Why do firms exist? 41
  Exit Albert Hirschman 44
  Ahead of the curve 47
  The guru of the bottom of the pyramid 50
  Think different 53
  Built to last 56
  The Breaking Bad school 59

Part 2 Forces of disruption
  An emerging challenge 65
  Mall of the masses 68
  Asian innovation 71
  Getting on the treadmill 74
  The case against globaloney 77
  Crazy diamonds 80
  The wiki way 83
  Building with big data 86
  I, robot-manager 89
  The eclipse of the public company 92
  Leviathan as capitalist 95
  The silver tsunami 98
  The father of fracking 101
  The transience of power 104
Part 3 Winners and losers
The other demographic dividend 109
The daughter also rises 112
Uncaging the lions 115
Flower power 118
Those bloody Scandinavians 121
Bringing home the bacon 124
In praise of misfits 127
Of companies and closets 130
Enterprising oldies 133
Ideas reinvented 136
The shackled boss 139
Bumpkin bosses 142
Declining by degree 145
Angst for the educated 148

Part 4 Surviving disruption: the case of companies
Measuring management 153
Unpacking Lego 156
Taking the long view 159
The silence of Mammon 162
Mittel-management 165
The corruption eruption 168
Fail often, fail well 171
The business of sharing 174
The bottom of the pyramid 177
The tussle for talent 180
Age shall not wither them 183
Womenomics 186
The art of management 189

Part 5 Surviving disruption: the case of governments
Beyond the start-up nation 195
Fixing the capitalist machine 198
Rules for fools 201
Ties that bind 204
Cronies and capitols 207
<table>
<thead>
<tr>
<th>The entrepreneurial state</th>
<th>210</th>
</tr>
</thead>
<tbody>
<tr>
<td>The great mismatch</td>
<td>213</td>
</tr>
<tr>
<td>A hospital case</td>
<td>216</td>
</tr>
<tr>
<td>Saving Britain’s health service</td>
<td>219</td>
</tr>
</tbody>
</table>

**Part 6 The world of workers**

<table>
<thead>
<tr>
<th>The wolves of the web</th>
<th>225</th>
</tr>
</thead>
<tbody>
<tr>
<td>Hating what you do</td>
<td>228</td>
</tr>
<tr>
<td>Too much information</td>
<td>231</td>
</tr>
<tr>
<td>Going off the rails</td>
<td>234</td>
</tr>
<tr>
<td>The mindfulness business</td>
<td>237</td>
</tr>
<tr>
<td>Too many chiefs</td>
<td>240</td>
</tr>
<tr>
<td>Down with fun</td>
<td>243</td>
</tr>
<tr>
<td>In praise of laziness</td>
<td>246</td>
</tr>
<tr>
<td>A guide to skiving</td>
<td>249</td>
</tr>
</tbody>
</table>

**Part 7 Beyond the great disruption**

<table>
<thead>
<tr>
<th>The will to power</th>
<th>255</th>
</tr>
</thead>
<tbody>
<tr>
<td>Of businessmen and ballerinas</td>
<td>258</td>
</tr>
<tr>
<td>A tissue of lies</td>
<td>261</td>
</tr>
<tr>
<td>The status seekers</td>
<td>264</td>
</tr>
<tr>
<td>When stars go cuckoo</td>
<td>267</td>
</tr>
<tr>
<td>No rush</td>
<td>270</td>
</tr>
<tr>
<td>Sticking together</td>
<td>273</td>
</tr>
<tr>
<td>Philosopher kings</td>
<td>276</td>
</tr>
</tbody>
</table>

Index                                      279
Introduction: the age of Schumpeter

EVEN BY THE STANDARDS of the elite universities of the mid-20th century Joseph Schumpeter was something of a stick-in-the-mud. He failed to learn to drive, avoided aeroplanes as much as possible and, in his 18 years as a professor of economics at Harvard, only once took the underground that links Cambridge with Boston. He was so resistant to new-fangled devices such as carbon paper and photocopiers that he did not bother to make a copy of his masterwork, *Capitalism, Socialism and Democracy*, before posting it to his publisher. A book that dwells at length on the limits of the competence of government might have been lost forever if the US Post Office had been less reliable.

Yet Schumpeter was also one of the greatest apostles of disruptive innovation that the 20th century produced: a technophile technophobe and a progress-loving reactionary. Schumpeter was not the first social observer to notice that capitalism invariably brings disruption in its wake. Karl Marx and Frederick Engels talked about capitalism melting all that is solid into air. Thomas Carlyle argued that capitalism sacrifices humanity to the god of cash. But he expressed the insight as well as anyone – he said that capitalism is above all “a perennial gale of creative destruction” that blows through the world, overturning the old and clearing a path for the new. And he grasped that you cannot have the creation without the destruction.

Marx thought what he saw as the internal contradictions of capitalism would resolve themselves in a socialist utopia. John Maynard Keynes thought that they could be managed by a benevolent government. Schumpeter thought that all this turbulence had a hidden logic. Entrepreneurs are constantly generating innovations
that give them temporary advantages over their competitors. And these innovations send gusts of disruption though the economy as their competitors try to adjust to the new business landscape and institutions scrabble to adjust to new realities. Entrepreneurs rather than the workers are history’s great revolutionaries – the people who disequilibrated every equilibrium and summon the future into being through sheer force of will and imagination.

In 2009 The Economist decided to introduce a column on business on the model of its columns on Britain (Bagehot), America (Lexington) and Europe (Charlemagne). But what to call it? A lively debate ensued. There was some support for naming it after the newspaper’s founder, James Wilson, who had the merit of being a successful businessman as well as a great benefactor (his marble statue stands in the lobby, silently reminding the staff of the virtues of free trade, liberty and self-reliance). Unfortunately, Wilson is an unromantic name that reminds Britons of Harold Wilson and Americans of Woodrow Wilson and doesn’t get anybody’s blood flowing. No sooner did the name Schumpeter come up than it was instantly adopted. If the post-war era was the age of Keynes, the modern era is the age of Schumpeter. Entrepreneurs have taken central stage. Change has speeded up. Disruption has become endemic. Over the past two decades there have been innumerable disruptions in almost every industry under the sun, disruptions that have not only forced incumbents to fight for their life but have frequently turned assets into liabilities and business models into prisons. So many disruptions, in fact, that they add up to one great disruption: a great disruption not of “traditional society” of the sort that Marx chronicled but of capitalism itself.

Consider a few statistics. Two-thirds of the companies on the Fortune 500 list for 1970 have disappeared from it (and some, like Pan Am, Arthur Andersen and Bear Sterns, have disappeared entirely). The average job tenure for the CEO of a Fortune 500 company has declined from ten years in 2000 to less than five years today; Leo Apotheker lasted less than a year as CEO of Hewlett-Packard. The average job tenure of American retail workers (who now outnumber manufacturing workers) is even shorter, at three years, and does not come with a golden parachute attached. The rate at which US public companies in the top quartile of returns on assets changed leadership
increased by 40% between 1965 and 2012. The chance of experiencing a reputational disaster in any given five-year period increased from 20% in 1994 to 84% today: think of News Corp or BP or Tiger Woods Incorporated. In 1937, at the height of the Great Depression, the average lifespan of a company in the Standard & Poor’s 500 was 75 years. By 2011 it had fallen to just 18.

The 21st century has already produced two spectacular crises. In 2001–02 a cluster of leading companies, including Enron, World Com and Arthur Andersen, imploded. In 2007–08 Lehman Brothers exploded, producing the worst financial crisis in half a century, destroying trillions of dollars of wealth and forcing George W. Bush, a self-identified hard-headed free-marketer, to bail out two of America’s big three carmakers. Schumpeter once said that the average firm stands on ground that is crumbling beneath its feet. The ground is more treacherous than ever.

**Forces of creative disruption**

What forces have unleashed this storm of creative disruption? Three stand out: information technology, particularly the internet, financial markets and globalisation. Each one of these is an earth-shaking force in its own right. Taken together they are producing unprecedented turmoil. Information technology is changing the world as dramatically as machine technology did in the Victorian age. Computing power is increasing at an exponential rate. McKinsey estimates that the amount of computing capacity being added to the global stock increased from 5 exaflops (exaflops are measures of computing power and might be translated roughly as “a hell of a lot”) in 2008 to more than 20 exaflops in 2012 and to about 40 in 2014. Schumpeter once celebrated capitalism’s ability to turn silk stockings from a rarity reserved for queens into an everyday luxury available to factory girls in a mere three centuries. Mobile phones went from being toys of the rich to tools of three-quarters of the earth’s population in two decades.

The internet has accelerated what was already a high-speed revolution. The telephone took 70 years to reach half of American households. Electricity took 50 years. The internet took a decade: by 2010, there were more computers connected to the internet than
people on the planet. The internet is also mutating at an astonishing speed; so astonishing that it sometimes feels like an alien invader that has implanted itself in our guts and is now taking over our lives. It has already evolved from an asocial into a social medium and from a desk-bound into a mobile one. Now it is embracing things as well as people. Tiny computers, embedded in objects, are closing the gap between the physical world and the cyber-world, extending the information economy ad infinitum.

The internet has rewritten the rules of the business world in a couple of decades, shifting the balance of power from incumbents to challengers and from the old economy to the new. Companies have already come from nowhere to reorganise entire industries – classified ads (Craigslist), long-distance calls (Skype), record stores (iTunes), research libraries (Google), local stores (eBay), taxi services (Uber) – and there is good reason to think that this trend will gather pace. Small companies can acquire a big company’s computer power by plugging into the cloud; local companies can go global with the click of a mouse; obscure companies can go viral with the help of YouTube or Twitter. At the same time it has spawned mighty leviathans to organise its affairs and exploit its potential. Google, Amazon, Facebook and eBay all surpassed $1 billion in annual sales within roughly five years of being launched. Procter & Gamble, by contrast, took more than 20 years to reach $1 million in annual sales and more than 100 years to pass the $1 billion mark. In matters of size the new economy cuts both ways.

Capital is also at the heart of all this disruption, just as it was in Marx’s day. The markets control vastly more money than ever before: the US Investment Company Institute calculates that the volume of money controlled by US mutual funds increased from $135 billion in 1980 to $15 trillion in 2013. Financial institutions not only put relentless pressure on companies to perform from quarter to quarter. They also subject them to regular earthquakes. In 2007–08 problems with arcane securities traded by often obscure financial institutions shook “real” companies to their foundations and threw millions of people out of work.

The digital revolution and the capital markets have both reinforced the third revolutionary force: globalisation. Between 1980 and 2007
global integration sped ahead at a faster pace than at any time since the late 19th century. The 2007–08 financial crisis slowed the pace of integration for a while, particularly in the financial sector, as banks tried to raise more reserves, but it is beginning to speed up again. The new economy is a born-global economy: companies such as Skype (founded in Estonia by a Swede and a Dane) can suddenly become internet giants. But globalisation is the ruling principle of the “old” economy, too. Every day tens of thousands of ships, flagged in Panama, registered in Malta, insured in London and staffed by sailors from every corner of the world, carry goods from one corner of the world to another.

These three great dynamos of change are spinning ever faster. Google is experimenting with super-high-speed networks that will operate more than 100 times faster than regular broadband.2 Cisco claims that its latest router can deliver the equivalent of the entire printed collection of three US Libraries of Congress in just over a second. Growing wealth in Asia, the most dynamic corner of the global economy, is pouring trillions into the global financial system and introducing another source of both growth and instability. And global integration is resuming after pausing for breath in 2007–08: Pankaj Ghemawat, a professor at both IESE and Stern business schools and a leading student of globalisation, argues that global integration may be nearer the beginning than the end. Foreign direct investment (FDI) so far accounts for only 9% of all fixed investment, and cross-border internet traffic accounts for only about 20% of all internet traffic. Reid Hoffman, the co-founder and chairman of LinkedIn, warns that concepts such as globalisation and technology “may seem overhyped to you, but their long-term effects are actually underhyped”.3

The world has lived with spells of dramatic disruption before: hence Marx’s worry about all that is solid melting into air and Schumpeter’s insistence that capitalism’s gale of creative destruction is “perennial”. The Industrial Revolution took an economy that moved at a snail’s pace and forced it to move at the pace of a locomotive. Or perhaps even of a rocket: Walt Rostow, one of the leading economists of economic growth, employed the rocket-like metaphor of a “take-off” to describe what happens when society industrialises. The
The Great Disruption shook capitalism to its foundations, producing a depression in the US and propelling fascists to power in Germany, Italy and Spain. But as John Hagel, of Deloitte’s Centre for the Edge, points out, these previous technological revolutions followed a set pattern: dramatic bursts of innovation in core technologies (such as steam or electricity) followed by a period of consolidation as entrepreneurs built infrastructure (often laboriously) and reorganised industries to harness the new technology.

This time it may be different: digital technology may produce sustained disruption rather than slowing down and stabilising. The most important law of the digital age is Moore’s law, which states that the number of transistors that can fit onto a computer chip doubles every 18 months or two years. Moore’s law has transformed the IT world; today, each smartphone (of which there are about 2 billion) provides 1,000 times more computational capacity at a millionth of the cost than the whole of the Massachusetts Institute of Technology commanded in 1965.

Bill Gates once noted that, if technology advanced as fast in the car industry as it does in the computer industry, we would all be driving around in cars that cost $25 and did 1,000 miles to the gallon. Today that is beginning to happen. Uber, which was founded in 2009, has become a global giant, with revenues of $18 billion in 2014 and operations in 48 countries, by applying new technology to the hide-bound taxi industry: apps allow you to summon taxis and satellite navigation systems allow anyone to become a taxi driver. Google is producing cars that can drive themselves. 3D printing is allowing us to print human organs. Intelligent robots are taking over office and even domestic functions.

The internet of things is turning physical objects into virtual slaves, fulfilling the wildest imaginings of ancient magicians and science-fiction writers. Before long traffic lights will route cars around traffic jams; buildings will adjust heating and air conditioning to the number of people in them; pill bottles will glow to alert forgetful patients to take a pill and pharmacists to make a refill; floors will alert hospitals when old people fall and fail to get up; watches will act as our personal coaches, recording the number of steps we take, urging us to take the stairs and watching our calories; virtual assistants will
manage our diaries and arrange our business trips. It will not be long before we are able to send instructions to 3D printers that will then turn our plans into physical objects on the other side of the world. Nor will it be long before those 3D objects can be programmed to change shape.

**Carpe diem**

Management literature is full of metaphors that celebrate speed and agility. Business books glory in titles such as *Faster, Blur, Out of Control, Blown to Bits, Fast Forward, Speed of Thought* and *Wake Up*. The Boston Consulting Group (BCG) talks of companies adopting an “accelerator mindset”. McKinsey urges companies to increase their “metabolic rate”. Rita Gunther McGrath, of Columbia Business School, says that companies need to forget about trying to build sustained competitive advantage and focus instead on seizing momentary opportunities. The point is not to build a castle with a moat but to build a canoe that can navigate fast-changing waters.

The most successful companies are the inverse of the behemoths of old: people-short and asset-light. In 1901 US Steel employed a quarter of a million men, more than the army and navy combined. At the end of 2014, Google employed 51,564, Facebook 8,348 and Twitter 3,600. The top ten hedge funds regularly make more profits than the top six banks but only employ a few hundred people compared with more than a million. In 2012 Facebook paid $1 billion for Instagram, which employed 13 people and had yet to make a penny. Two years later it paid $20 billion for WhatsApp, which had 55 employees and revenues of $20 million.

Companies are getting cleverer at using information technology to reduce the number of full-time employees to a minimum: rather than employing a stock of workers and looking for something for them to do they rely on creating spot markets in talent. They strike deals between consumers who order a service via an app and only then summon up workers who are waiting for something to do. The rise of these on-demand companies has been most visible in the service sector: Uber provides drivers on demand; Handy provides house cleaners and handymen. SpoonRocket, a San Francisco-based food
company, will deliver a meal to your door within ten minutes. Shyp will pick up a present, wrap it and post it.

On-demand companies are also proliferating in the knowledge economy. ODesk furnishes 3 million companies with 10 million freelancers every day. Quirky uses freelancers to develop new products. Tongal uses them to create advertisements, one of which has been shown at the Super Bowl, for a fraction of the cost of big advertising agencies. Companies have applied the contract-worker model to consulting (Eden McCallum), legal services (Axiom), medical services (Medicast) and the C-suite (Business Talent Group). These companies are quickly changing the nature of employment by applying contract labour to ever more sophisticated tasks. They are also changing the nature of firms – turning companies into deal-makers that specialise in matching buyers and sellers and providing guarantees of quality.

Even companies in the low-wage sector are slimming their workforces in order to remain agile. Foxconn, the world’s largest contract manufacturer and the maker of most Apple computers, is introducing 1 million robots. Nike reduced the number of contract workers it employs by 106,000 – or 9% – between 2012 and 2013 at a time when it increased its profits by 16% and its revenues by 5%, despite the fact that it operates in some of the lowest-wage countries in the world.4

The best companies are constantly reinventing themselves, sucking in information about their environment and adjusting their profiles and strategies in the light of that information. Jeff Bezos, the founder of Amazon, begins every annual letter to shareholders with a phrase that he used in his first such letter in 1997, “It’s still Day 1 of the internet”, and says of Amazon.com:5 “Though we are optimistic, we must remain vigilant and maintain a sense of urgency.” When Facebook realised that it was falling behind in the race for the mobile internet in 2012 it turned on a dime: within a year it was gaining half of its advertising revenue from mobile. Netflix cannibalised its DVD business by embracing streaming. Infosys reorganises itself every two or three years from top to bottom in order to keep the organisation from atrophying. Today’s winners have to be willing to disrupt themselves in order to avoid becoming tomorrow’s losers.
Breakneck disruption is turning business models upside down and inside out, blurring the borders between industries and discombobulating long-established business strategies. We used to assume that publishers and internet companies belonged to different worlds. Ditto banks and mobile-phone companies, broadcasters and cable companies. Now they are all getting muddled up together: one enterprising Mexican phone company, Medical, is providing medical advice over the phone. We used to assume that business was basically about selling things or services. Now companies are pioneering collaborative business models that involve everything from renting things on a short-term basis (Zipcar for cars or Airbnb for rooms) to organising sharing. Couch surfing connects people who have a spare couch with people who are willing to pay for the privilege of using it. Flickr, Twitter and Linux specialise in taking the shared efforts of thousands or even millions of people and then using them to create communities. We used to assume that industrial production meant making things at scale and then putting them in the shops. Now “pull production” allows companies such as Hong Kong’s Li & Fung to tell its suppliers to get to work only when they have a specific order.

**Gutted guilds**

The great disruption is reaching some of the most cosseted areas of society, areas where the educated and affluent once gathered for protection against Schumpeter’s “perennial gale”, the great professional guilds that were formed in the Middle Ages and revitalised themselves in the industrial era. These guilds all adopted similar business models. They recruited their members when they were young, subjected them to prolonged periods of apprenticeship, which often involved doing routine tasks which the guild masters did not want to do themselves, weeded out the weakest and least committed, and then rewarded the survivors with job security in the form of a partnership or tenured professorship, which allowed them to reap dividends from all their hard work when they were young. This model is being ripped apart. New technology is automating much of the routine work that once provided guilds with a steady source of income and new entrants with a form of training. Global companies are employing economies of scale and scope to drive out
smaller players. And growing consumer demand is forcing them to reduce their prices.

Universities, perhaps the world’s oldest guilds, are being transformed from communities of learning into highly stratified knowledge- and credential-producing machines: only 500,000 of the 1.4 million instructors in US universities have tenure, a group of ageing alphas who lord over an ever-expanding army of part-time and contingent gammas. This is only a taste of things to come. Digital technology will allow star lecturers to reach millions via pin-sharp video and, in no time at all, 3D holograms. Ancient chores like marking exams and classifying students will be done by computers. Such disruption will have costs: thousands of weaker universities are likely to close as students discover that they can get better value for money from MOOCs (or massive open online courses) that take content from elite universities such as Harvard and Stanford and deliver them at a fraction of the cost of second-tier universities.

Accountancy is being gobbled up by the big four global companies at the top end and disintermediated by new technologies such as TurboTax at the bottom. Law firms are being squeezed by demanding customers, particularly multinational corporations, undercut by on-demand companies such as Axiom and InCloudCounsel and shaken up by algorithms that can search millions of documents in a matter of minutes. The young can tell which way the wind is blowing: applications for US law schools have fallen by 40% since 2004.

The same pattern is being repeated in the new guilds that have emerged in the 20th century such as management consulting. Mid-sized consultancies are dying. Booz & Company has been gobbled up by PwC (PricewaterhouseCoopers) and lumbered with the name Strategy&. Monitor has gone out of business after selling its soul to Libya’s former dictator, Muammar Gadhafi, among others. New entrants are challenging the old partnership model. Companies such as Eden McCallum and Business Talent Group can undercut traditional consultancies on price because they employ consultants on a freelance basis, put together ad-hoc teams for particular products and eschew expensive real estate in city centres. These new model consultancies are particularly appealing to women, who found the partnership model of traditional consultancies – work like a dog in
your 20s and 30s in order to become a partner and obtain financial security – incompatible with looking after young children.6

The great disruption is also coming to the biggest guild of all, the public sector. Governments are being prodded by a combination of inherited debt, popular disaffection and resistance to further tax rises to get more productivity out of their public workers. At the same time, technological innovation arguably has even more dramatic implications for the service-intensive public sector than for the private sector. The essence of bureaucracy, for example, is the control and dissemination of information, the very stuff that is being revolutionised by Moore’s law. State institutions will transform themselves from bureaucratic empires to platforms, working hand-in-hand with voluntary organisations, private businesses and active citizens. Schools will routinely use computers to “flip the classroom”: pupils will get their basic instruction from their iPads and teachers will concentrate on delivering personal instruction. Doctors will monitor patients via remote sensors and call them into their surgeries when they spot something wrong.

If you think that this sounds far-fetched, you need only to look around the world at what is already happening. The UK’s coalition government reduced the size of the permanent civil service by 17% between 2010 and 2014; it has also published more than 14,000 data sets (at data.gov.uk) to create the largest open data portal in the world. Estonia has rid itself of unsightly junk by using GPS devices to locate over 10,000 illegal dumps and unleashing an army of 50,000 people to clean them up. The Montefiore Medical Centre in New York has reduced hospital admissions for older patients by more than 30% by using remote monitors to keep a watch on patients.

This will inevitably prove socially as well as organisationally disruptive. The public sector is dominated by powerful interest groups who have traditionally been highly successful at protecting their turf and winning the general public over to their point of view. Attempts to reform public-sector guilds have already provoked big fights. They will provoke even bigger ones as the power of technology multiplies. Still, as populations age and private companies become more agile, the pressure to boost productivity in the public sector will prove irresistible.
From Keynes to Schumpeter
How can we make sense of this frenzy of change? Perhaps the easiest way is to look at the world that the baby-boomers inherited and see how it is being reshaped. The post-war order rested on three pillars: managerial capitalism, social-democratic politics and a Western-centric balance of power. Now managerial capitalism is giving way to entrepreneurial capitalism; social-democratic politics is coming apart; and the centre of economic activity is shifting inexorably to the emerging world, particularly Asia. These changes are unleashing some troublesome demons that were imprisoned during the years of managerial, social-democratic Western hegemony, in particular the demons of inequality, identity politics and existential despair.

The age of the entrepreneur
In the wake of the Great Depression traumatised governments replaced laissez-faire capitalism with managerial capitalism. The spirit of capitalism was disciplined by three “Bigs”. Big businesses exploited economies of scale and scope to dominate industrial sectors: the seven sisters in oil; the big three in carmaking and television; the big two in computers. Big trade unions claimed to speak for the workers, with 30% of American workers and 80% of Swedish workers belonging to unions. Big government played the role of pump-primer-cum-referee, stimulating demand to keep the economy whirring and brokering deals between labour and capital. People differed in their reaction to the rule of giants. J.K. Galbraith, an economist, thanked the lord that big companies had replaced “the entrepreneur as the directing force of the enterprise with management”. “No individual genius arranged the flight to the moon,” he wrote triumphantly. “It was the work of organisation – bureaucracy.” Schumpeter lamented that capitalism was being bureaucratised just like the state. But most people agreed that it was simply a fact about the world. Averill Harriman, a descendant of one of America’s great robber barons, reflected:

People in this country are no longer scared of such words as “planning” ... people have accepted the fact the government has to plan as well as individuals in this country.
The same was even truer outside the US.

Yet managerial capitalism hit the buffers in the late 1970s. Predictable growth turned into stagflation. Governments proved to be dismal entrepreneurs: state-owned companies such as British Leyland employed more and more people to produce lousier and lousier products. An army of innovators, particularly in the computer and finance industries, picked apart the old industrial corporation. Public opinion turned against trade unions. And economists increasingly realised, in Paul Romer’s phrase, that economic growth “springs from better recipes, not more cooking”. The age of the manager gave way to the age of the entrepreneur.

Entrepreneurs are in the driving seat of the new capitalism, just as managers-cum-bureaucrats were in the driving seat of the old. Cap Gemini, a consultancy, calculated that, in 2010, the most recent year for which it has produced figures, nearly half (47%) of the world’s wealthy people were entrepreneurs. Entrepreneurs are not only in tune with the dominant technology of the day – the internet provides upstarts with the wherewithal to seize momentary opportunities and take on long-established businesses – they are also in tune with the anti-establishment mood. People who dislike corporate bureaucrats tend to idealise the likes of Steve Jobs or Richard Branson.

It is true that big companies remain important. The all-disrupting internet is increasingly dominated by leviathans. But the heads of big companies are having to act like entrepreneurs rather than bureaucrats in order to survive. Nokia, for example, imploded because it continued to act as if it lived in the world of managerial capitalism. Big companies are increasingly drawn from sectors such as IT, where innovation is at a premium. And boards in every area of business have little compunction about firing underperforming managers. In the 1950s governments instinctively looked to big companies such as General Motors for their template of capitalism. Today they rightly look at entrepreneurial start-ups.

This transition from managerial to entrepreneurial capitalism is forcing companies to rethink their contracts with their workers. In 1962 Earl Willis, General Electric’s manager of employee benefits, spoke for his generation when he said that “maximising employee security is a prime company goal”. Today Reed Hastings, the founder
and CEO of Netflix, spoke for a much more hard-headed generation when he told his employees, in a much-celebrated presentation on his company’s culture, that “we’re a team, not a family”, advising them to ask themselves:10

*Which of my people, if they told me they are leaving for a similar job at a peer company, would I fight to keep at Netflix? The other people should get a generous severance now so that we can open up a slot to try and find a star for that role.*

Though many companies continue to employ an inner circle of company loyalists who embody the corporate DNA, the size of that inner circle has been contracting, and it is surrounded by an expanding outer circle of workers who have a more tenuous link to the company either as temporary contractors or as short-term workers. Even the core workers can be outplaced with remarkable brutality if they become a burden on performance. In the 1960s the average person had four different employers by the time they were 65. Today the average person has eight by the time they are 30.

**Breakout nations**

The rise of emerging markets represents an equally radical change. For the past 400 years the West has been the crucible of economic activity, from brute growth to innovation and optimism. Today the world is turning upside down. For all the recent turbulence emerging markets still accounted for 68% of global growth in 2013. Oxford Economics projects that the GDPs of emerging-market countries will increase 2.2 percentage points faster than those of developed economies over the next four years. BCG notes that by 2020 Indonesia alone will add the equivalent of the population of the UK, 68 million people, to the middle class. McKinsey calculates that almost half of the world’s GDP growth between 2010 and 2025 will come from 440 cities in emerging markets, many of them middle-sized or small. As hundreds of millions of consumers join the ranks of the middle class in coming years, buying their first televisions, fridges and cars and potentially establishing loyalties that will last a lifetime, managers will have to familiarise themselves with Tianjin (China), Porto Alegre (Brazil) and Jumasi (Ghana).
Emerging-market countries are producing ever-larger numbers of ambitious companies. In 2013, 124 of the global *Fortune* 500 companies had their headquarters in emerging markets – more than double the number in *Fortune’s* 2008 list. China’s Haier has emerged as the world’s largest appliance-maker, and Huawei is the largest telecoms equipment-maker. Mexico’s Bimbo is aggressively expanding into the US baked-goods market. McKinsey calculates that the proportion will rise to 45% by 2025, and that China will be home to more big companies than either Europe or the US.

The emerging world is also challenging the West’s monopoly on innovation. The world’s biggest multinationals are relocating more of their research and development to emerging markets: cities such as Shanghai and Bangalore boast “electronic cities”, oases of order in seas of disorder, where huge multinationals house R&D facilities. Some of these – such as General Electric’s health-care arm and Cisco’s Eastern headquarters, both in Bangalore, and Microsoft’s Beijing R&D centre – are huge. Emerging-world companies are leaping over Western companies in many areas, most notably mobile money: in Kenya, for example, where 58% of adults do not have a bank account, 60% of people use the M-Pesa system of mobile payments. They are changing the balance of power in the cultural industries: Bollywood produces 1,100 films a year for an audience of 3.6 billion people, while Hollywood produces 600 for 2.6 billion. Most importantly, they are coming up with new products and services that are dramatically cheaper than their Western equivalents, such as $300 computers and $30 mobile phones that provide nationwide service for just 2 cents a minute.

The frugal revolution is being applied to some remarkable areas. Devi Shetty charges $3,000 for a heart operation compared with $20,000–100,000 in the US, but his success rates are as good as in the best US hospitals. It is also generating a stream of remarkable ideas from the bottom of the pyramid. In India, Mansukh Prajapati, a potter, has invented a fridge called MittiCool that is made entirely of clay and consumes no electricity. In Kenya, entrepreneurs have invented a device that enables bicycle riders to charge their mobile phones while pedalling along. In the Philippines, Illac Diaz has deployed a Liter of Light, a recycled plastic bottle containing bleach-processed water that
refracts sunlight, producing the equivalent of a 55-watt light bulb and helping to light huts in off-the-grid shanty towns. In Peru, where the humidity is punishing and rainfall can be low, an engineering college has designed advertising billboards that can convert humid air into drinking water.

The emerging world is also caught up in the entrepreneurial revolution. Once upon a time most people in emerging markets dreamt of getting safe jobs in the civil service or big multinational organisations. Now they dream of joining start-ups or creating start-ups of their own. Young entrepreneurs can be found in entrepreneurial hot spots across the emerging world. They have created a network of entrepreneurial hubs, clubs and accelerators. They have also established a *cursus honorum*: a spell working in Silicon Valley, another spell working in Bangalore or Shanghai, a lucky meeting with a business partner and a venture capitalist, and, hey presto, an entrepreneur takes off.

**The strange death of social democracy**

The simultaneous rise of entrepreneurial capitalism and the shift in the balance of economic power from the old world to the new is posing an existential threat to the brand of politics that has ruled the West for much of the post-war period. This rested on consensus and compromise: the big organisations that dominated society divvied up the spoils of the capitalist economy and planned ahead for the sake of social stability. Bill Clinton and Tony Blair did a good job of putting this consensus back together after Margaret Thatcher and Ronald Reagan tried to tear it apart. But the great disruption is reshaping politics as profoundly as it reshapes the economy – and today’s inheritors of the New Democratic and New Labour legacies are more inclined to indulge in nostalgia for a world that has been lost than to produce workable plans for taming the disruption.

The established order is losing its support. Voter turnout is falling: across the OECD the average turnout in national elections fell by 11 percentage points between 1980 and 2011. In the UK, one of the first countries to have a mass working-class electorate, only 57% of social classes D and E bothered to vote in 2012 compared with