

The Economist

OCTOBER 22ND-28TH 2016

The battle for Mosul

Private equity's barbarian establishment

Why is Hillary hated?

Ground control to Elon Musk

Putinism

A SPECIAL REPORT
ON RUSSIA

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understand money.
How many people
understand families?

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On the cover

How to contain Vladimir Putin's deadly, dysfunctional empire: leader, page 7. When the Soviet Union collapsed 25 years ago, Russia looked set to become a free-market democracy. What went wrong and how much is Mr Putin to blame? See our special report after page 40. Russia and the European Union haggle over Ukraine, page 41

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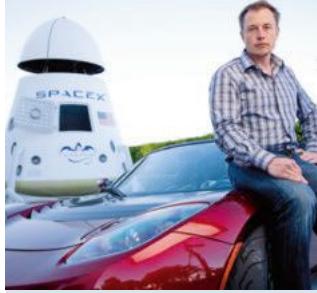


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Principal commercial offices:

25 St James's Street, London SW1A 1HG

Tel: +44 20 7830 7000

Rue de l'Athénée 32

1206 Geneva, Switzerland

Tel: +41 22 566 2470

750 3rd Avenue, 5th Floor, New York, NY 10017

Tel: +1 212 541 0500

1301 Cityplaza Four,

12 Taikoo Wan Road, Taikoo Shing, Hong Kong

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Politics



Vladimir Putin attended a summit with Angela Merkel in Berlin that also included the leaders of France and Ukraine. **Russia's** involvement in the war in Syria has put a further strain on its relations with Europe and Mrs Merkel is threatening sanctions. Mr Putin had not visited Germany since Russia attacked Ukraine in 2014. He recently pulled out of a trip to France after François Hollande suggested that he wanted to discuss Syria.

After seven years of negotiations, a **trade deal** between the European Union and Canada faced a big hurdle when the parliament of the Belgian region of Wallonia rejected it, saying it fell short on social and environmental standards. Negotiators in Brussels scrambled to overturn the decision.

Barack Obama praised Matteo Renzi, the beleaguered prime minister of **Italy**, at a state dinner in Washington. Mr Renzi is staking his political reputation on a referendum in December to reform the political system. Leaders of the opposition, most of whom do not support the reform, were unimpressed by the endorsement from the American president.

The front-runner to be the next leader of the **UK Independence Party**, Steven Woolfe, withdrew from any potential contest and the party itself, claiming it was "rotten". His decision to quit followed a "scuffle" with a fellow member, Mike Hookem, which had left Mr Woolfe in hospital. That

ruke came after the farce of its previous leader resigning after just 18 days in the job.

Fright night

At the final **presidential debate** Donald Trump said that he might not accept the result of the election, which Hillary Clinton described as "horrifying". Mr Trump has asked his supporters to watch over polling places for fraud, leading to fears that voters will feel intimidated on the day. Barack Obama told him to "stop whining".

Underlining the ugly mood of the election, local **Republican** offices in North Carolina were firebombed and graffitied.

The government of Ecuador cut off **Julian Assange's** internet access at its embassy in London, where the WikiLeaks founder has sought refuge since 2012. WikiLeaks has published hacked e-mails from the Clinton campaign in an attempt to embarrass the candidate, prompting Ecuador to act for fear of being seen to interfere in a foreign election.

Harder to recall

Venezuela's supreme court ruled that, in order to launch a referendum to recall President Nicolás Maduro from office, the opposition must gain the support of 20% of the electorate in each of the country's 24 states. The opposition maintains that under the constitution the 20% threshold is a national one.

A **Mexican** judge who had ruled on requests for the extradition of drug lords was murdered by two men while jogging. The judge had suspended the extradition to America of Joaquín Guzmán ("El Chapo"), who has twice escaped from Mexican jails.

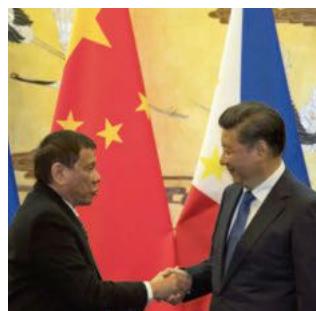
Police in **Brazil** arrested Eduardo Cunha, a former speaker of congress's lower house, on charges of corruption. Mr Cunha, who helped initiate the impeachment of the former president, Dilma Rousseff, is the subject of other investigations into a scandal

centred on Petrobras, the state-controlled oil company. He denies wrongdoing.

A text of wills

Hong Kong's Legislative Council again witnessed stormy scenes over the swearing-in of two lawmakers who support self-determination for the territory. In their first attempt they had changed the wording to disparage China. As they prepared for a second attempt, dozens of legislators sympathetic with the Chinese Communist Party walked out.

A **Chinese** spacecraft docked successfully with a new space-lab. Two astronauts entered the orbiting module for a month-long stay—the longest in space by Chinese citizens.



The president of the **Philippines**, Rodrigo Duterte, arrived in China for a state visit and said he would not raise his country's dispute with China over maritime territory. Mr Duterte has been trying to strengthen ties with China, while distancing himself from America.

Leaders of the five **BRICS** countries—Brazil, Russia, India, China and South Africa—met in the Indian state of Goa. Apart from India, the **BRICS** economies have suffered from the fall in commodity prices. India's prime minister, Narendra Modi, and Russia's president, Vladimir Putin, reached deals in energy and defence worth billions of dollars.

Officials in **Thailand** said the country's crown prince, Maha Vajiralongkorn, would delay assuming the throne for an unspecified period. The prince reportedly wants more time to

mourn the death of his father, King Bhumibol Adulyadej.

The **Maldives** withdrew from the Commonwealth, after the organisation had warned the government of the archipelago that it might be suspended for subverting democracy.

The long haul

The long-expected operation to recapture Mosul from Islamic State began. **Iraqi** government troops and Kurdish Peshmerga converged on Iraq's second city, taken by the jihadists in June 2014. At least a million civilians are thought to be still inside, though thousands have fled. Earlier, is lost the town of Dabiq, in **Syria**, to Turkish-backed rebels. Dabiq is held by Muslim tradition to be the future site of a battle that will mark the end of the world.

Raif Badawi, a **Saudi Arabian** blogger, faced a new round of lashes, part of a sentence of 1,000 lashes and ten years in prison for "insulting Islam". Meanwhile, a Saudi prince was executed for murder. It is rare for a Saudi royal, who number the thousands, to be put to death.

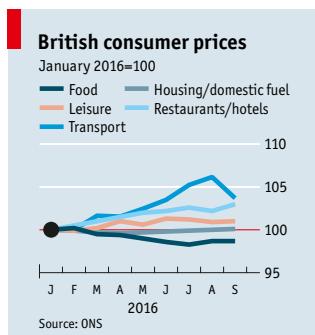
Meeting in Rwanda, nearly 200 countries agreed to phase out the use and production of **hydrofluorocarbons**, which are used in fridges and air-conditioning units and contribute to global warming. Big concessions were granted to China and India.



Nigeria's president, Muhammadu Buhari, attracted worldwide criticism for saying that his wife belonged in the kitchen. She had earlier warned that she might not back him for re-election unless he got a grip on his government. ➤

Business

China's GDP grew by 6.7% in the third quarter, exactly the same pace that was recorded in the first and second quarters and raising more questions about how the country's national accounts are tallied. The government cited the figure as evidence that the economy is stabilising, but it has hit its growth target by expanding credit, which is up by 16% this year. Corporate debt has swollen, to \$18 trillion, which officials are trying to rein in by allowing firms to swap debt they owe to banks for shares.



Inflation in Britain rose to 1% in September, the highest since November 2014. The Office for National Statistics urged caution in making too strong a link between the increase and the plunge in sterling since Britain's vote in June to leave the European Union. Earlier, Mark Carney, the governor of the Bank of England, said that families who were just managing to get by would be hit disproportionately hard by price rises. A household-finance index published by IHS Markit reported a 22-month high in future inflation expectations, and a three-month low in the financial outlook for the year ahead.

The sell-off in British ten-year **government bonds** continued, pushing the yield up to its highest level since the vote for Brexit on June 23rd. The bond yields for other countries also climbed, as investors mulled over forecasts of rising inflation. America's annual consumer-price index jumped 1.5% last month, but the yield on ten-year Treasury bonds fell

because markets welcomed the news that core inflation, which excludes food and energy, was down slightly.

Gulf economics

Saudi Arabia raised \$17.5 billion in its first-ever international bond sale, a record amount for an emerging market. It issued the bonds in five-, ten- and 30-year tranches amid heavy demand. The country has turned to global markets to finance a budget deficit that has been fuelled by the depressed price of oil, the country's main source of income.

The weaker pound was the main factor behind a profit warning from **Ryanair**, its first in three years. Around a quarter of revenue at Europe's biggest budget airline is accounted for in sterling. Like its rivals, Ryanair is having to reduce the price of fares more than it had anticipated in response to a drop in demand following the past year's terrorist attacks in Europe.

America's big banks reported a solid set of earnings for the third quarter. Net profits at **JPMorgan Chase** and **Citigroup** were lower compared with the same period last year, at \$6.3 billion and \$3.8 billion respectively, whereas

Bank of America's rose to \$5 billion (its best quarterly profit since the financial crisis). But all three saw revenues soar from bond trading, as investors repositioned themselves in anticipation of higher interest rates and uncertainty over Brexit. **Morgan Stanley's** profit surged by 57%, to \$1.6 billion and Goldman Sachs's net income climbed to \$2.1 billion buoyed by a similar rise in income from trading.

The former poster boy

Wells Fargo, another American bank, set aside more money to pay for potential legal costs that may arise from a scandal wherein branch employees created fake accounts to meet sales goals. The division at the centre of that scandal saw a 9% fall in profit, though the bank's overall net income fell by just 3%, to \$5.6 billion. Worryingly for Wells Fargo, new customer accounts plunged by 30% in September from August.

A surprise drop in America's store of **oil** pushed the price of West Texas Intermediate, the benchmark for American oil, to \$51.60 a barrel, its highest level in 15 months. Oil markets have rallied in the past few weeks on hopes the OPEC oil cartel will cut production.

Netflix gained 3.2m new international subscribers in the latest quarter, offsetting a slowdown in its domestic American market, where it added 370,000 customers. It has expanded its video-streaming to a further 130 countries. The glaring exception is China, where Netflix has dropped plans to push into the market in the short-term. It also announced an increase in spending on original programming, which could dent profits. Still, investors were happy with its overall performance; its share price leapt by 20%.

Having a flutter

Australia's two biggest non-casino betting companies, **Tabcorp** and **Tatts**, discussed merging in an A\$9 billion (\$6.9 billion) transaction. But shares in an Australian gaming company, **Crown Resorts**, fell after 18 of its employees were detained in China. A proposed deal between **William Hill** in Britain and the owner of the PokerStars website was called off, in part because the British firm's biggest shareholders were nervous about taking a gamble on a business that is expanding in America's heavily regulated market.

Other economic data and news can be found on pages 76-77



Putinism

How to contain Vladimir Putin's deadly, dysfunctional empire



FOUR years ago Mitt Romney, then a Republican candidate, said that Russia was America's "number-one geopolitical foe". Barack Obama, among others, mocked this hilarious gaffe: "The 1980s are now calling to ask for their foreign policy back, because the cold war's been over for 20 years," scoffed the president. How times change. With Russia hacking the American election, presiding over mass slaughter in Syria, annexing Crimea and talking casually about using nuclear weapons, Mr Romney's view has become conventional wisdom. Almost the only American to dissent from it is today's Republican nominee, Donald Trump.

Every week Vladimir Putin, Russia's president, finds new ways to scare the world. Recently he moved nuclear-capable missiles close to Poland and Lithuania. This week he sent an aircraft-carrier group down the North Sea and the English Channel. He has threatened to shoot down any American plane that attacks the forces of Syria's despot, Bashar al-Assad. Russia's UN envoy has said that relations with America are at their tensest in 40 years. Russian television news is full of ballistic missiles and bomb shelters. "Impudent behaviour" might have "nuclear consequences", warns Dmitry Kiselyev, Mr Putin's propagandist-in-chief—who goes on to cite Mr Putin's words that "If a fight is inevitable, you have to strike first."

In fact, Russia is not about to go to war with America. Much of its language is no more than bluster. But it does pose a threat to stability and order. And the first step to answering that threat is to understand that Russian belligerence is not a sign of resurgence, but of a chronic, debilitating weakness.

Vlad the invader

As our special report this week sets out, Russia confronts grave problems in its economy, politics and society. Its population is ageing and is expected to shrink by 10% by 2050. An attempt to use the windfall from the commodity boom to modernise the state and its economy fell flat. Instead Mr Putin has presided over a huge increase in government: between 2005 and 2015, the share of Russian GDP that comes from public spending and state-controlled firms rose from 35% to 70%. Having grown by 7% a year at the start of Mr Putin's reign, the economy is now shrinking. Sanctions are partly to blame, but corruption and a fall in the price of oil matter more. The Kremlin decides who gets rich and stays that way. Vladimir Yevtushenkov, a Russian tycoon, was detained for three months in 2014. When he emerged, he had surrendered his oil company.

Mr Putin has sought to offset vulnerability at home with aggression abroad. With their mass protests after election-rigging in 2011-12, Russia's sophisticated urban middle classes showed that they yearn for a modern state. When the oil price was high, Mr Putin could resist them by buying support. Now he shores up his power by waging foreign wars and using his propaganda tools to whip up nationalism. He is wary of giving any ground to Western ideas because Russia's political system,

though adept at repression, is brittle. Institutions that would underpin a prosperous Russia, such as the rule of law, free media, democracy and open competition, pose an existential threat to Mr Putin's rotten state.

For much of his time in office Mr Obama has assumed that, because Russia is a declining power, he need not pay it much heed. Yet a weak, insecure, unpredictable country with nuclear weapons is dangerous—more so, in some ways, even than the Soviet Union was. Unlike Soviet leaders after Stalin, Mr Putin rules alone, unchecked by a Politburo or by having witnessed the second world war's devastation. He could remain in charge for years to come. Age is unlikely to mellow him.

Mr Obama increasingly says the right things about Putinism—he sounded reasonably tough during a press conference this week—but Mr Putin has learned that he can defy America and come out on top. Mild Western sanctions make ordinary Russians worse off, but they also give the people an enemy to unite against, and Mr Putin something to blame for the economic damage caused by his own policies.

Ivan the bearable

What should the West do? Time is on its side. A declining power needs containing until it is eventually overrun by its own contradictions—even as the urge to lash out remains.

Because the danger is of miscalculation and unchecked escalation, America must continue to engage in direct talks with Mr Putin even, as today, when the experience is dispiriting. Success is not measured by breakthroughs and ceasefires—welcome as those would be in a country as benighted as Syria—but by lowering the chances of a Russian blunder.

Nuclear miscalculation would be the worst kind of all. Hence the talks need to include nuclear-arms control as well as improved military-to-military relations, in the hope that nuclear weapons can be kept separate from other issues, as they were in Soviet times. That will be hard because, as Russia declines, it will see its nuclear arsenal as an enduring advantage.

Another area of dispute will be Russia's near abroad. Ukraine shows how Mr Putin seeks to destabilise countries as a way to stop them drifting out of Russia's orbit (see page 41). America's next president must declare that, contrary to what Mr Trump has said, if Russia uses such tactics against a NATO member, such as Latvia or Estonia, the alliance will treat it as an attack on them all. Separately the West needs to make it clear that, if Russia engages in large-scale aggression against non-NATO allies, such as Georgia and Ukraine, it reserves the right to arm them.

Above all the West needs to keep its head. Russian interference in America's presidential election merits measured retaliation. But the West can withstand such "active measures". Russia does not pretend to offer the world an attractive ideology or vision. Instead its propaganda aims to discredit and erode universal liberal values by nurturing the idea that the West is just as corrupt as Russia, and that its political system is just as rigged. It wants to create a divided West that has lost faith in its ability to shape the world. In response, the West should be united and firm. ■

The battle for Mosul

Crushing the caliphate

The right way to capture the jihadists' most important stronghold



TWO years after he vowed to “degrade and ultimately destroy” Islamic State (is), Barack Obama is at last close to honouring his commitment. In the early hours of October 17th a long-planned military operation was launched to retake Mosul, Iraq’s second city. The battle will involve the Iraqi army, Kurdish soldiers, Shia militias, American special forces and the air power of a Western-led coalition. Mosul matters: it is the place from which the is leader, Abu Bakr al-Baghdadi, declared his “caliphate”. The jihadists’ motto is “remain and expand”, but their state is fast retreating and shrinking.

There is little doubt that Mosul will fall (see page 37). But how it is taken will determine whether the battle marks a lasting victory against jihadism or another chapter in the unending agony of the Arab world. If Iraq is ever to attain stability, its leaders must find ways of assuaging the resentment of its once-dominant Sunni Arab minority, and giving it a political voice.

The meaning of Mosul

Done properly, the recapture of Mosul would not just liberate the million or more people living under the brutal rule of is; in a sense, it would relieve the world. Unlike other jihadist movements, is set itself up as a standing challenge to existing structures, an alternative theocratic polity that expunged borders, plumbed new depths of televised barbarity and acted as a magnet for its death-cult. Smashing is will give the lie to its founding myth, that a new God-ordained world order is at hand. With Mosul lost, its fantasy will lie in ruins. No territory of any significance will remain to is in Iraq; in Syria it will hold only the remote city of Raqqa and a few dusty towns.

That is not to say that the next weeks or months will be easy.

No one knows how the battle for Mosul will unfold. Perhaps, as in Ramadi late last year, is will stand and fight. That led to the destruction of much of the city and the flight of most of its population. Or perhaps, as in Fallujah in June, is will simply run away. Most of its best fighters in Mosul, and almost all its leaders including Mr Baghdadi, have probably already gone.

The liberators must act with extreme care. Mosul must not become another Aleppo, which is being reduced to rubble by Syrian and Russian forces. Instead all action must be targeted, avoiding harm to civilians whenever possible and properly policing areas as they are taken from is. More humanitarian assistance is needed if the world is to cater both for those who have started to flee and those who hunker down in the city.

Thereafter, it is important to avoid anything that looks like a Shia takeover of Mosul and the surrounding province of Nineveh. This is a majority Sunni Arab area, which should enjoy a large degree of autonomy. In turn, the rights of the many minority groups, among them Kurds, Christians, Yazidis and Turkomans, must also be protected. Above all, the many outsiders who would like a piece of Mosul for themselves—Kurdish forces, Shia militias, perhaps Turkey—must be kept out of the city. They would bring about only a violent free-for-all.

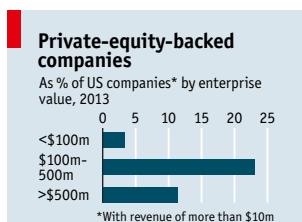
Though it might seem perverse, the wisest thing the would-be liberators could do would be to leave is a safe way out of the city, eastward to Syria, to avoid a long fight to the death. The prize of taking Mosul as quickly and bloodlessly as possible is worth the cost of allowing an isolated Islamic Statelet to survive in eastern Syria a bit longer. Raqqa is a more vulnerable target. And it will be easier to induce is recruits to give up the fight if Iraq shows it can woo back its Sunni population.

Having endured two insurgencies and 13 years of war, Iraq has a chance to rebuild itself. If it is not to be squandered, Mr Obama and his successor must not declare victory for a second time, rush for the exit—and leave Iraq to tear itself apart. ■

Business in America

Float like a butterfly

Public companies are out of fashion. They need to be revived



Most people know Elon Musk for his electric vehicles and desire to colonise Mars. He inspired the portrayal of the playboy and engineering genius who is the hero of the Hollywood blockbuster, “Iron Man”. Mr Musk is also one of the last entrepreneurs in America who seems to think that the publicly listed company can be useful. Two of his companies are listed: Tesla, a carmaker, and SolarCity, an energy firm. They have towering ambitions and valuations, and burn up cash as fast as his third company, SpaceX, burns up rocket fuel.

Governance at Mr Musk’s firms is patchy and they may well fail (see page 53), but they are exactly the kind of exhilarating gamble that stockmarkets are meant to be good at funding.

However, such octane-rich affairs have become rare. Listed giants such as Microsoft and Johnson & Johnson are more profitable than ever. Beneath these plump incumbents, though, public firms are fading. Their number has fallen from over 7,000 in 1996 to 4,000. Startups such as Uber and Airbnb have avoided floating their shares and instead raised money through private markets and venture-capital funds. The cash raised by initial public offerings (IPOS) in America in 2016 is likely to be 50-75% less than it was a decade ago.

For mature companies, meanwhile, the private-equity in- ►

Industry has become the owner of choice, as our briefing explains (see page 15). Businesses owned by Carlyle, a buy-out firm, are together America's second-biggest employer after Walmart, with 725,000 staff. A quarter of midsized firms are under private-equity ownership, as are a tenth of large ones. The share of corporate America that is unlisted is likely gradually to rise further, as buy-out funds invest some of their \$1.3 trillion of spare cash.

Public firms are in decline for several reasons. Technological change may mean that startups are less capital-intensive, and so are less hungry for money. More worrying, managers grumble that being in the public eye has become a gigantic headache. Listed firms face ever more red tape. Then there is the treadmill of quarterly results—with the ever-present risk that Wall Street will punish even short-term slip-ups.

Politicians see public firms as easy targets. Bernie Sanders has laid into General Electric and Donald Trump has slammed Ford for being too ruthless. Staying in the shadows can lower tax bills. Without the need to report steady quarterly results, firms pile on debt to cut their taxable profits. Private-equity and venture-capital managers use a perk called "carried interest" that lets them pay a low rate of tax on some income.

Although the corporate quest for privacy is understandable, it is regrettable. At their best, stockmarkets are liquid, transparent, cheap for investors to use—so you do not have to be wealthy to own shares. At their worst, the forms of private ownership that are replacing them are illiquid, opaque, expensive and exclusively for the very rich.

Investors in private firms cannot easily sell or value their holdings. That is their choice, but it can be a problem when the economy turns sour and they need to realise cash. Companies' books are not subject to outside scrutiny. And the pension

funds (often government-run) that invest through fiddly private structures are more prone to get bamboozled by fees. There are broader costs to society, too. Chunks of the economy become off-limits for retail investors, giving people less of a stake in capitalism. Already investing in technology startups has become as democratic as owning a ski chalet in Aspen.

Public, for the public

How can the public firm be saved? It is not up to governments to dictate how firms are owned. But they should not penalise companies for being public. That means abolishing the carried-interest perk, as Hillary Clinton and Mr Trump propose. One of the benefits of phasing out the tax advantages debt enjoys over equity would be to discourage leveraged buy-outs. The extra revenue could be used to slash the corporate-tax rate.

America's regulators could simplify the rules public firms face, and end the bank cartel that means the fees for an IPO are typically 7%, double the level in other rich countries. Big unlisted firms should publish a basic annual report, as they are already required to in Britain and elsewhere. The cost would be low, and creditors, customers, staff and competitors could get a sense of firms' financial condition. A competitive, open economy cannot work well if large chunks of it are secret.

Public firms also have work to do. By beefing up their boards, companies can make sure that operational managers are insulated from the short-term demands that some stock-market investors make, as even autocrats such as Jamie Dimon at JPMorgan Chase, and Warren Buffett have recognised by backing a new code for how American boards should be run.

The public company is a vital cog of capitalism. Ringing the bell at the New York Stock Exchange must become something that entrepreneurs aspire to, not fear and dread. ■

Thailand's succession

A royal mess

The ruling junta is missing an opportunity to change Thailand for the better



IT IS hard not to be moved by the sight of Thailand in mourning for Bhumibol Adulyadej, its late king. A week after his death, huge crowds continue to gather outside the royal palace in Bangkok and across the country. Some hold pictures of him; others light candles; others simply stand and weep. The demand for black clothes is so great that impromptu dyeing shops have sprung up, offering to turn brighter garments into something suitably sombre.

Respect for the Thai monarchy may be reinforced through the education system and bolstered by strict laws against insulting the king, but it is genuine nonetheless. King Bhumibol reigned for over 70 years with diligence and dignity. Many Thais are distraught at his death.

Yet it is hard not to feel that an opportunity is being missed, both to reassure ordinary Thais at an unsettling juncture and to set a new tone for the next reign. The emotion around the king's death is heightened by anxiety over the upheaval it may bring. Thai politics has been unstable for the past decade, be-

devilled by popular protests and upended by two coups. Even before the instability there were worries about whether the succession would be smooth, given the often indecorous behaviour of the crown prince. The last thing Thailand needs is any hint that things are not going according to plan.

Long live, er...

And yet that is exactly what it is getting. On the day the king died, parliament convened. But it did not acclaim his successor, as had been expected. Instead, Crown Prince Maha Vajiralongkorn, in an apparent gesture of respect and humility, asked that the question of the succession be set aside for an indeterminate period, to give him and the rest of the country time to mourn (see page 19). The military junta that runs Thailand keeps insisting that the crown prince will eventually become king, although it also keeps changing its mind about when that will happen: perhaps this week, perhaps next year. The generals' confusion may be just a sign of ill-preparedness. But the more they have to repeat themselves, the harder it is to suppress the impression that the succession is not quite a done deal. The generals also say airily that King Bhumibol's death will not delay the restoration of democracy, but they remain ►

► studiously vague about when elections will be held.

In the meantime the role of regent falls to Prem Tinsulana, the head of the privy council. That is unfortunate in several respects. For one thing, Mr Prem is 96, and does not exactly seem on top of things. For another, he is a former general and prime minister who is strongly associated with the idea that the monarchy and the army should play a big part in Thailand's political life.

In addition, the troubling vacuum at the top of Thai society means that no one is setting the tone for the period of mourning now under way. That has allowed a sort of hysteria to develop, in which people seen as insufficiently respectful are accosted by angry mobs. The police, instead of protecting the victims of such attacks, tend to arrest them, and in at least one case forced a suspect to prostrate herself before a picture of the late king. The minister of justice has condoned royalist vigilantism, and the authorities have opened a series of new investi-

gations into supposed incidents of *lèse-majesté*.

As it was, the army had been using *lèse-majesté* and other laws to suppress all manner of inconvenient debate, over the incompetence of the ruling junta, say, or shortcomings of the illiberal constitution it foisted on the country earlier this year. The accession of a new king gives the junta an opportunity to ease up, especially as there is little sign that advocates of democracy are seeking to exploit the moment. Instead it seems inclined to restrict freedom of speech even further. It has been encouraging Thailand's main cable provider to censor foreign television channels, for example, and says it will seek to prosecute people outside the country who criticise the king.

The foreign ministry, meanwhile, has issued a huffy statement complaining that foreign media are wilfully underestimating the crowds mourning the king. Such petty defensiveness is neither a fitting tribute to King Bhumibol nor a good way forward for Thailand. ■

Trade agreements

Asterix in Belgium

In the face of feisty opposition, politicians must do more to champion free-trade deals



French-speaking corner of ancient Gaul, with a population of just 3.6m out of the EU's 508m, has taken an Asterix-like stand against the implacable forces of globalisation. Free-traders may seethe that such a tiny minority can threaten a proposed treaty seven years in the making. But they cannot disregard it. Failure to secure a deal with Canada would undermine much of the EU's trade-negotiating policy, and raise troubling questions for Britain about trade with the union after Brexit.

Politix v economix

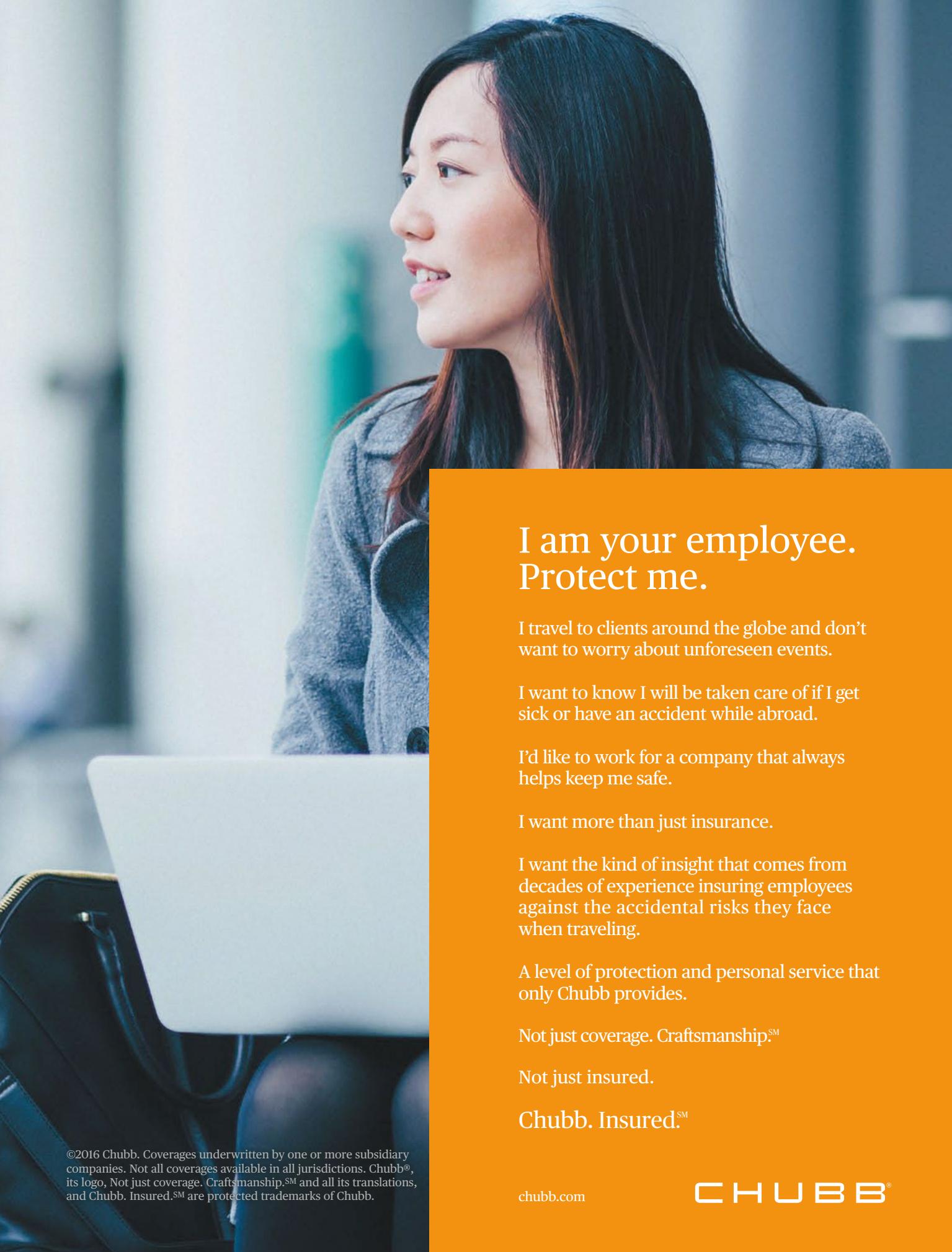
Wallonia, once Belgium's steel-and-coal heartland, is the sort of place where a bleak view of globalisation flourishes. Industrial plants are shutting down. Unemployment is high. In such poverty traps it is easy to misconstrue free-trade deals as giving supranational capital the right to trample over local legal systems, as well as environmental and labour standards. Yet political leaders, instead of facing up to this plight and presenting free trade as a way out of a dying past, make a case for it that is ever more convoluted. At best, they focus on technical fixes to finagle agreements such as CETA through. At worst they pander to rising protectionism with xenophobic rhetoric.

CETA has raised hackles across Europe. It had already been dealt a blow by Germany's constitutional court, which, in a suit with 190,000 plaintiffs, this month ruled that it must not cut across areas under national (as opposed to EU-level) "competences". Protesters against CETA have taken to the streets of many European countries. Anti-globalisers fear that it would pave the way for a proposed EU-America agreement, the Transatlantic Trade and Investment Partnership (TTIP).

If only. Trade pacts are the walking dead of diplomacy, repeatedly rising from the grave and lurching ghoulishly through yet more rounds of "last ditch" talks. So CETA is not buried yet—though, as we went to press, the prospect that it might be signed as planned on October 27th looked remote. TTIP, whose condition seems terminal, also limps on. The Trans-Pacific Partnership (TPP), covering America, Japan and ten other Pacific-rim countries, has yet to be ratified by Congress. Hillary Clinton and Donald Trump both say they oppose it.

Part of the problem is that even supporters of these agreements fail to defend them. In CETA negotiators have made striking improvements in contentious provisions, such as those for settling disputes between investors and governments—a bugbear of its opponents (see page 44). They have protected national laws on health and the environment and provided for transparent arbitration proceedings. They have guarded against a foreign-trade invasion to a fault: hundreds of its 1,598 pages cover national "reservations", protecting everything from the livelihoods of veterinary surgeons in Alberta to executive-search services in Slovenia.

All the carve-outs, side-letters and "interpretative declarations" point to how trade policy skirts around the benefits of more openness, more trade and more globalisation. Most leaders understand that, as Barack Obama wrote in these pages two weeks ago: "Trade has helped our economy much more than it has hurt." Yet in America many still dream that the best way to pacify Congress is through procedural gestures, and that the lame-duck session after the presidential election will at last ratify the TPP. (Perhaps they hope the electorate will not notice.) As for Europe, its stuttering recovery can ill afford to forgo the fillip from CETA and TTIP. Britain would be foolish to rejoice in the idea that, if those deals fall through, the Conservative government might easily strike some post-Brexit bilateral replacements. Britain's future arrangements with the EU will be far more important. And if the union cannot reach a trade agreement with cuddly Canada, what hope is there for renegade Britain? ■



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Trading positions

As someone who is familiar with trade policy of the past 40 years, I endorse what you say about how a good Brexit deal should be shaped ("The road to Brexit", October 8th). You focus on the crucial importance of free trade and access to the European single market for trade in services, and the potential difficulty in achieving that.

But I do have some reservations. The problem of "rejoining" the World Trade Organisation does not have to be as difficult as you make out, and an interim trade deal would not be necessary if trade arrangements with the European Union are discussed in parallel with the Article 50 process. A temporary deal styled on the European Economic Area is, I believe, unlikely to be offered, and might well be vetoed both in Brussels and by the Brexiteers. "In" is in and "Out" is out.

RODERICK ABBOTT
Brussels

Trying to achieve trade deals outside the EU is critical for Britain as it enters the Brexit negotiations. Your bargaining power depends on what alternatives you bring to a settlement. Negotiating with the EU without any credible alternatives is foolish for Britain, hence the ministerial air miles trying to create them. Exploring trade deals with Asia and others is one way for Britain to get the best deal it can.

JOHN CLARK
Oxford

If Britain is heading for a hard Brexit, the prime minister should push her "global Britain" agenda equally hard. In fields like science Britain is a world leader dependent on global connections. In a Europe where movement is less free there is an urgent need to develop policies that will protect this precious status.

One solution would be explicitly to link scientific mobility with research funding. Any participant in EU-funded research projects would automatically receive a

visa for free movement between Britain and the EU. This would disentangle science from the wider immigration debate and allow researchers to focus on what they do best.

ALICE GAST
President
Imperial College London

Just over a third of the total registered UK electorate voted to Leave. If a 40% threshold had been applied (as in the first Scottish referendum in 1979), we would not now be about to waste years of parliamentary time debating, and years of government time negotiating, our exit from the EU.

KEITH RAFFAN
Liberal Democrat Member of the Scottish Parliament, 1999-2005
London

Stressing the economic benefits of migration misses the point. There is clearly an increasing number of people who see controlling immigration as a way of regaining control over their communities in a rapidly changing world. The success of the campaign to leave the EU suggests that national cultures and identities matter more to large sections of the electorate than the health of the economy, and that voters may be prepared to take a risk with the latter if they believe it is necessary to defend the former. Liberal commentators such as yourselves can keep telling these people that they are wrong, but it clearly isn't working.

DANIELE ALBERTAZZI
Senior lecturer in European politics
University of Birmingham

I am the director of a small firm employing 50 people, a father of four and grandfather of nine. I am writing on behalf of the many people like myself who voted for Brexit and are fed up with being branded, xenophobic, racist, nationalist, populist and against free trade, immigration and globalisation. I am none of those things. I resent the implication that I am somehow morally inferior to those who want to remain in the EU, a bankrupt organisation run by unelected officials

in partnership with arrogant self-serving politicians.

MIKE WESTMORE
Stroud, Gloucestershire

Long time gone

Three cheers for the Swedish Academy's courageous decision to award this year's Nobel prize in literature to Bob Dylan (The world this week, October 15th). It is a timely reminder that the lyrics of popular music can be poetry, too. But are writings on philosophy and history no longer considered to be also literature? The Nobel laureates Octavio Paz (1990), Elias Canetti (1981), Jean-Paul Sartre (1964), Albert Camus (1957), Winston Churchill (1953), Bertrand Russell (1950), Henri Bergson (1927) and Theodor Mommsen (1902) have had no peers in over a quarter of a century. Why should only fiction count?

PROFESSOR MIGUEL ORELLANA
BENADO
Universidad de Chile
Santiago

Bond issues

A lot of the concerns that Buttonwood raised about emerging-market corporate bonds are misguided (October 8th). Although inflows surged over the summer, this followed several years of investors bailing out of emerging markets. The \$1.5 billion in inflows is chump change for a sector closing in on \$1.5 trillion worth of bonds outstanding. Inflows were significantly higher into sovereign debt.

Furthermore, the downgrades of Russia and Brazil last year prompted a wave of knock-on rating actions in the corporate sector, as companies can rarely "pierce the sovereign-rating ceiling", in

industry-speak. This skews the numbers you quoted on downgrades. In addition, the emerging-market corporate universe consists of around 40% in bank issuers, another third in commodity-related companies and nearly a tenth in utilities. These are hardly sectors sensitive to a drop in world trade, which you listed as the greatest threat.

Consider that companies in emerging markets just went through a crushing period of declining oil prices and limited appetite from international investors to pump finance into their countries. Challenges remain—bond liquidity is the most pressing—but the sector just survived a hurricane and can handle a lesser storm.

YACOV ARNOPOLIN
Newport Beach, California

Trumpety Trump

Notwithstanding Donald Trump's lewd behaviour ("With these hands", October 15th), *The Economist* consistently ignores the basis of his support. This election is not about race or women, though I'm sure you wished it was. It is about the decades-long slide into economic oblivion experienced by many Americans, which undermines your arguments on the benefits of globalisation and free trade.

TERRY MCGRAW
Phoenix

I must protest against your cover of October 15th equating the sayings of Mr Trump with elephant dung. Elephants are intelligent, sensitive, beautiful and endangered beings and their droppings are excellent natural fertiliser. The emanations from the mouth of Mr Trump are worthless, toxic bilge, harmful to any and all. Your equation of the two was egregiously unfair.

MAC BRACHMAN
Evanston, Illinois ■

Executive Focus



Housing and Urban Development Division Chief

The Inter-American Development Bank is the main source of funding for projects involving development and reduction of poverty in Latin America and the Caribbean. The Bank's key challenge for the urban development and housing sector is to extend the full benefits of urbanization to all urban residents, both today and tomorrow.

You will be responsible for developing and overseeing analytical support and strategic thinking with expert technical oversight to diverse colleagues and disseminate knowledge to governments, international organizations, regional agencies, academia and civil society. A key component of the responsibilities will be to ensure a successful management of the technical and professional talent in these areas and lead a collaboration process with other Divisions and Departments across the organization to translate innovation in Bank products, processes, and instruments into relevant programs and projects outcomes.

Holding a master's degree or PhD in Urban Development or Planning, Engineering, Social Sciences, Business Administration, Economics, Finance or a related discipline, you will bring extensive professional experience managing multi-disciplinary teams, a track record developing partnerships for urban interventions including successfully developed projects and resource mobilization for climate finance. A background in Latin America or the Caribbean would be extremely useful. Your international stature, strategic outlook and communications skills in English and Spanish (knowledge of French or Portuguese a plus) are key to success.

Please learn more and apply online at www.iadb.org/jobs (requisition 1600003556).

Closing date: 28 October, 2016.



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Executive Director, Kampala, Uganda

BACKGROUND:

The African Field Epidemiology Network (AFENET) is a not for profit, networking alliance and service organization that brings together field epidemiology training programs (FETPs) across Africa working side by side with Ministries of Health, regional and international partners. AFENET works to strengthen epidemiologic and disease surveillance capabilities of Africa countries that are critical to meeting the requirements of the Integrated Disease Surveillance and Response (IDSR) strategy, and the International Health Regulations (IHR).

AREAS OF SUPPORT INCLUDE:

- Training of the public health workforce in field epidemiology. More than 600 have graduated from 2-year FETP programs, and over 300 are in training across 16 programs.
- Public health laboratory practice and vaccinology.
- Development of laboratory quality management systems.
- Review, strengthening and maintenance of disease surveillance systems.
- Epidemic investigation and response among others.

With support from multiple donors, AFENET's annual revenues are in excess of USD 15 million. AFENET is seeking to hire a new Executive Director to consolidate and build on this momentum.

QUALIFICATIONS REQUIRED:

A Medical Officer (MD), a Veterinary Doctor (DVM) or a Laboratory Scientist (PhD) with at least an MPH in Field Epidemiology or an equivalent degree; must be fluent in English. A good knowledge of French, and/or Portuguese will be a strong positive.

EXPERIENCE:

The candidate should have excellent leadership skills, with strong interpersonal and communication abilities, leading teams from different cultural backgrounds and a track record of strengthening health systems in developing countries. He/she should have at least 8 years of experience in a public health setting, 5 of which at middle or executive level; work experience in Africa; a strong track record in winning grants from multiple donors; experience in coordinating and managing multi-country projects; a good track record in delivering on objectives, strategic leadership, effective operational and financial management skills.

BENEFITS:

Salary and benefits are very competitive and commensurate with experience.

Submit your resume, application letter, and relevant documentation to: Chair, Human Resource Committee on e-mail: zgura@fetp.or.ke; copied to Chair, Board of Directors on e-mail: tshimangamufuta@gmail.com

Please note:

- * Applicants should clearly state any restrictions they have from previous employments to take up the advertised position.
- * ONLY successful candidates shall be contacted for an interview.

The detailed position description can be found at <http://www.afenet.net>

Application deadline: 10 Nov 2016



Head of Secretariat – Clean Energy Ministerial

The **OECD** is a global economic forum working with 35 member countries and more than 100 emerging and developing economies to make better policies for better lives. Our mission is to promote policies that will improve the economic and social well-being of people around the world.

The **International Energy Agency (IEA)** is an intergovernmental organisation committed to advancing security of energy supply, economic growth and environmental sustainability through energy co-operation.

The **Clean Energy Ministerial (CEM)** was created in 2010 to drive faster deployments of clean energy policies and technologies. The CEM member countries account for about 75% of global greenhouse gas emissions and 90% of global clean energy investment.

In June 2016, a decision was taken to establish a multilateral CEM Secretariat to be hosted at the IEA, under the framework of the OECD.

The key functions of the CEM Secretariat include connecting high-level strategic guidance from ministers with the activities of the CEM, overseeing ministerial meetings and supporting the development and direction of CEM activities on a diverse set of clean energy issues.

We are recruiting a dynamic and visionary **Head of Secretariat** to lead the work of the CEM. The selected candidate will be in charge of the implementation of the CEM Secretariat's work programme under the direction of the CEM Steering Committee. S/he will be based in Paris and will manage a small team of enthusiastic professionals.

The selected candidate will have exceptional leadership, management, communications, public diplomacy skills, as well as an excellent understanding of clean energy issues.

The job requirements are available on the OECD recruitment website at www.oecd.org/careers and www.iea.org/about/jobs ref.10944.

Applications from OECD and CEM member countries nationals should be submitted online by **2 November**, before midnight Paris time.

Executive Focus



UNHCR
United Nations High Commissioner for Refugees
Haut Commissariat des Nations Unies pour les réfugiés

Head, Evaluation Service
UNHCR Geneva, Switzerland

Closing date for applications: 15th November 2016

The United Nations High Commissioner for Refugees (UNHCR) is one of the world's leading humanitarian organisations addressing the global challenges of refugees, internally displaced persons, and stateless persons. It is seeking suitable candidates to fill the position of Head of the Evaluation Service based in UNHCR headquarters in Geneva, Switzerland.

The Head of the Evaluation Service will provide overall leadership, set strategic direction and exercise effective management and quality control over the evaluation function across UNHCR. UNHCR's new Evaluation Policy establishes the overarching framework for a strengthened and professionalized evaluation function, introduces a system of both centralised and decentralised evaluations and strengthened quality assurance. The Head of the Evaluation Service will oversee the implementation of this policy across headquarters and field operations and represent UNHCR in professional evaluation networks. The post requires strong evaluation expertise, leadership and management skills.

The Head of the Evaluation Service reports to the High Commissioner, supervises the staff in the Evaluation Service (currently 5 professional positions and 1 general staff position) and interacts regularly with the Senior Executive Team and senior management in the organization (both at Headquarters and in the field) as well as inter-agency related evaluation fora and networks such as the United Nations Evaluation Group (UNEG).

The Head of the Evaluation Service requires a minimum of an advanced university degree (Master's degree or equivalent) in Social Sciences, Economics, or Law with formal qualification or certification in evaluation work or equivalent experience and 20 years professional experience, of which at least 10 years directly related to evaluations in humanitarian and/or development operations, programmes and projects. Fluency in written and oral English with working knowledge of French desirable.

Further details on the Job Description and application process, please go to <http://www.unhcr.org/careers.html> by **Tuesday, 15th November 2016**.

The UNHCR workforce consists of many diverse nationalities, cultures, languages and opinions. UNHCR seeks to sustain and strengthen this diversity and to ensure equal opportunities as well as an inclusive working environment for its entire workforce. Applications are encouraged from all qualified candidates without distinction on grounds of race, colour, sex, national origin, age, religion, disability, sexual orientation and gender identity.

Chief Executive Officer

London, UK

CDC
Investment works

CDC is the UK's development finance institution whose mission is to invest in businesses throughout Africa and South Asia to create jobs and make a lasting difference to people living in some of the world's poorest places. It is seeking an exceptional leader with commercial experience and judgment, who is personally inspired by poverty alleviation and public service to serve as Chief Executive Officer.

Established in 1948, CDC is wholly owned by the UK Government through the Department for International Development (DFID), but operates independently under the governance of an independent Board. CDC has a rich heritage and an enviable reputation for pioneering, patient and financially successful investments in emerging and frontier markets. Currently invested in 72 countries and supporting nearly 1,300 businesses, last year businesses backed by CDC helped create over a million direct and indirect new jobs.

Backed by a £4.5 billion balance sheet, a strong Board of Directors, and a highly talented team, this is an opportunity to lead one of the world's preeminent development finance institutions at a time when the importance of private sector development has been recognised as being central to achieving the new Sustainable Development Goals. CDC itself has exciting opportunities ahead of it, particularly in light of the new capital it received last year from its shareholder. CDC has a flexible mandate and invests in three ways: directly, by investing equity or providing debt and indirectly, by investing through funds. It also has a strong track record in environmental, social and governance matters and a strong focus on development impact methodology.

The successful candidate will be an established, entrepreneurial, and forward-thinking leader, with a proven ability to conceptualise, develop and deliver key priorities, as well as the credibility to interact with a range of stakeholders across the financial and global development sectors in order to enhance CDC's reputation as one of the leaders of the development finance community.

Candidates will have an understanding of, and preferably a demonstrable track record in, investing, and an understanding of, or exposure to, dual purpose investing. Experience of emerging markets, particularly Africa and/or South Asia, would be valuable. Candidates will also have a passion for international development, a collaborative management style and a record of achievement and personal effectiveness as a leader, ideally at an organisation with a degree of scale and complexity.

CDC is committed to diversity and providing equal opportunities for all.

CDC has retained Russell Reynolds Associates to advise them on this appointment. For further information on the position and additional details on qualifications, requirements, and how to apply, please visit: www.rreresponses.com

Responses are required no later than **Friday 2 December 2016**.

R **Russell**
Reynolds
ASSOCIATES



Food and Agriculture Organization
of the United Nations

The Food and Agriculture Organization of the United Nations

Invites applications for the position of

Assistant Director-General, Economic Development Department (ES)

Deadline for Applications: 14 November 2016

Responsibilities: Assists and advises the Director-General on all matters of policy or other subjects related to the Department's mandate (food and agriculture trade and markets, food systems, agricultural and rural development policies, food security, nutrition, social protection, gender issues and women's empowerment, equity, rural employment, rural organizations, statistics, governance and policy support); provides advice to the Organization and its governing bodies, ensuring that the Organization's major undertakings are sound from an economic and social perspective; ensures timely and adequate collection, analysis and dissemination of information, and the development of policies, strategies and guidelines in the Department's areas of competence and responsibility; exercises overall management responsibility for all Department activities, programmes and sources of funds; provides quality assurance, ensures delivery of results and is responsible for the formulation of the Department's programme of work and budget proposals for the Director-General's consideration; coordinates planning and implementation of the Department's budget and human resources in line with the Organization's Strategic Framework, results framework and programme of work; participates in and supports implementation of the corporate resource mobilization strategy; coordinates Departmental inputs to FAO's Governing Bodies' sessions, and monitors the responses by the Department to decisions and recommendations in its areas of competence and responsibility; serves as spokesperson for the Organization, as appropriate, at policy, technical and inter-agency meetings in the Department's and Organization's fields of activity.

General Requirements: Advanced university degree in economics or related social sciences (PhD or equivalent preferred); extensive professional experience in the economic and social analysis of development issues, including experience in supporting field programmes and policies on issues relevant to the post; demonstrated intellectual and strategic leadership of relevant subject areas, and a proven publication record, including in peer-reviewed outlets; demonstrated mastery of results-based management approaches and of managing programmes and budgets to achieve and track progress towards high impact results that respond to clients; strong track record in managing, motivating, mentoring and communicating with staff through large, complex, cross-disciplinary, multicultural teams and stakeholders in an international setting; excellent communication and representational skills; working knowledge of English, French or Spanish, and at least limited knowledge (level B) of one of the other official languages of the Organization.

More complete information on the responsibilities and requirements of this position, remuneration and details on how to apply remuneration are available at: <http://www.fao.org/employment/vacancies/senior-level/en/>

Please note that all candidates should adhere to FAO values of Commitment to the Organization, Respect for all and Integrity and Transparency.



Investing in rural people

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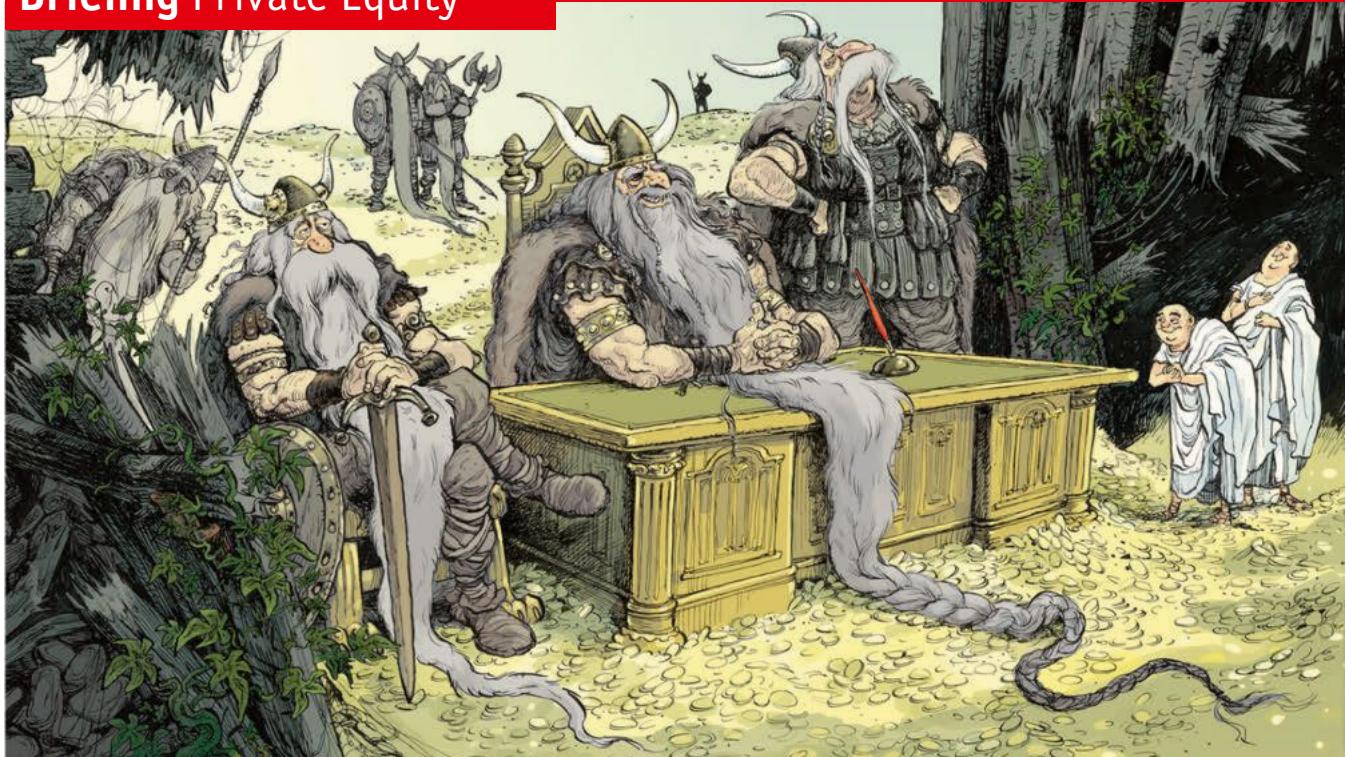
The International Fund for Agricultural Development (IFAD) is an international financial institution and a specialized United Nations agency dedicated to eradicating poverty and hunger in rural areas in developing countries. It does so by financing projects and programmes that increase agricultural productivity and raise rural incomes, and by advocating at the local, national and international levels for policies that enable poor rural people to overcome poverty.

IFAD is currently seeking to strengthen its global financial management consultant roster, ideally under retainer contracts with individual assignments ranging from 7 to 14 days in support of IFAD-financed projects. Tasks usually include financial management capacity and risk assessments, design of financial management processes, fiduciary supervision and implementation support. Language skills in Arabic, English, French and/or Spanish are required for most assignments.

Appropriate experience in development and qualifications in Public Financial Management (PFM), accounting or auditing are required. Candidates should be professionals with strategic vision, team orientation, proven capacity to generate results, and an understanding of and commitment to development. If shortlisted for the roster, candidates will be tested on PFM and relevant IFAD-specific procedures (materials will be provided) before being accredited for possible contracting.

IFAD is committed to achieving diversity and is seeking a balanced workforce from IFAD's member states. Women are particularly encouraged to apply. This invitation is open to freelance individuals and not consulting firms.

For detailed information and to submit your online application, visit our website <https://www.ifad.org/who/job/overview>.



The barbarian establishment

NEW YORK

Private equity has prospered while almost every other approach to business has stumbled. That is both good and disturbing

THIS year Henry Kravis and George Roberts, the second “k” and the “r” of KKR, celebrated their 72nd and 73rd birthdays, respectively. Steve Schwarzman, their equivalent at Blackstone, turned 69; his number two, Hamilton James, 65. In the past few months David Rubenstein, William Conway and Daniel D’Aniello, the trio behind and atop Carlyle, turned 67, 67 and 70. Leon Black, founder and head of Apollo, is just 65.

These men run the world’s four largest private-equity firms. Billionaires all, they are at or well past the age when chief executives of public companies move on, either by choice or force. Apple, founded the same year as KKR (1976), has had seven bosses; Microsoft, founded the year before, has had three. On average, public companies replace their leaders once or twice a decade. In finance executives begin bowing out in their 40s, flush with wealth and drained by stress.

The professional longevity of the private equityers—whose trade is the use of pooled money to buy operating companies in whole or in part for later resale—is thus rather remarkable. But do not expect to see a lot of fuss made about it. Since the uproar over a lavish 60th birthday party for Mr Schwarzman on the eve of the finan-

cial crisis (guests were entertained by his contemporary, Rod Stewart), such celebrations have become strictly private affairs. At KKR there has been little fuss over the company’s 40th anniversary—a striking milestone, given the fate of the institutions that previously employed the big four’s founders: Bear Stearns (gone), Lehman Brothers (gone), First National Bank of Chicago (gone) and Drexel Burnham Lambert (gone). The company has announced a programme encouraging civic-minded employees to volunteer for 40 hours.

Out of the private eye

There are good reasons for this low profile. The standard operating procedures of private equity—purchasing businesses, adding debt, minimising taxes, cutting costs (and facilities and employment), extracting large fees—are just the sort of things to aggravate popular anger about finance. Investors in private-equity firms (as opposed to investors in the funds run by those firms) have their own reasons to withhold applause. All of the big four have seen their share prices fall over the past year; Blackstone, Carlyle and KKR are all down more than 20%. Apollo, Blackstone and Carlyle trade for less than the prices at which their shares initially went public years ago (see

chart 1 on next page). First-quarter earnings were bleak, though things have picked up a little since.

A chief executive in any other industry with challenging public relations, poor profits and a depressed share price would have a list of worries. There would be a resistive board, a corporate raider, and possibly—ironically enough—a polite inquiry from a private-equity firm. Perhaps in the deep corporate waters such concerns are percolating; there may even have been a redundancy or two. But on the surface, things seem placid. There has been nothing like the rending of garments that would be seen if an investment bank were going through a similarly rough patch. The unusual design of private equity makes it resistant to all but the most protracted turbulence; its record redefines resilience.

It is not just that old private-equity firms persist; new ones continue to spring up at a remarkable rate. According to Prequin, a London-based research house, there were 24 private-equity firms in 1980. In 2015 there were 6,628, of which 620 were founded that year (see chart 2 on next page). Such expansion looks all the more striking when you consider what has been happening elsewhere in business and finance. In America, for which there are good data, the number of banks peaked in 1984; of mutual funds in 2001; companies in 2008; and hedge funds, probably, in 2015. Venture-capital companies are still multiplying; but they are effectively just private equity for fledglings.

Private equity’s vitality has seen it replace investment banking as the most sought-after job in finance. This is as true ➤

for former secretaries of the treasury (Robert Rubin departed the Clinton Administration for Citigroup; Timothy Geithner the Obama Administration for Warburg Pincus) as it is for business-school students. Some investment banks now pitch themselves to prospective hires as gateways to an eventual private-equity job. If banks represent their lessened status, they respond only with the kind of grovelling deference reserved for the most important clients. The funds made deals worth \$400 billion in 2015 (see chart 3 on next page). The fees they pay each time they buy or sell a company provide a fifth of the global banking system's revenues from mergers and acquisitions.

The growth of private equity has been so strong it has a bubbly feel. "The existing number of private-equity funds won't be topped for 20 years, if at all," predicts Paul Schulte, head of a research firm in Hong Kong that carries his name. His sentiments are shared, if quietly, by many in the industry as well as outside it, and there is good reason for them. But there is also good reason to believe that the expansion will continue, at least for a while, if only because it is very hard for the money already in the funds to get out.

Private-equity investments are sometimes liquidated and investors repaid. Firms can even be wound down. But investors in private-equity funds are called "limited partners" for good reason, and a key limitation is on access to their money. The standard commitment is for a decade. Getting out in the interim means finding another investor who wants to get in, so that no capital is extracted from the fund. That usually comes with off-puttingly large transaction costs.

Billion-dollar roach motels

The contrast with the alternatives is stark. Clients who want to withdraw money from a bank can do it on demand, from a mutual fund overnight, from a hedge fund monthly, quarterly, annually, or in very rare cases, bi-annually. It is because of the speed with which money can flee them that banks receive government deposit insurance; it shields them from market madness. It is because investors can get out that hedge funds suffering a spell of poor performance can find themselves collapsing even though they have investments that might, given time, pay off handsomely.

The stability that their never-check-out structure provides has enabled private-equity firms to assemble enterprises of enormous scale. Look at the companies themselves and this is not immediately apparent. The market capitalisation of the big four is about \$50 billion, which would barely break the top 100 of the *Fortune* 500; between them they employ only about 6,000 people. But the value and economic importance of the businesses held by their

Not so hot



funds (which are owned by the limited partners, rather than being company assets) are far greater. The 275 companies in Carlyle's portfolios employ 725,000 people; KKR's 115 companies employ 720,000. That makes both of them bigger employers than any listed American company other than Walmart.

The big four have by far the largest portfolios, but others such as TPG, General Atlantic and Mr Geithner's Warburg Pincus have a long list of familiar businesses that they either used to own or still do. According to Bain, a management consultancy, in 2013 private-equity-backed companies accounted for 23% of America's midsized companies and 11% of its large companies.

Not long ago most of those companies were owned by armies of individual stock-market investors—a system seen as both beneficial to business and befitting a capitalist democracy, and as such one that other countries sought to replicate. Private equity's deployment of chunks of capital from holders of large pools of money has severely dented that model. And this, too, is being replicated abroad. Only half of the world's private-equity firms, and 56% of their funds' assets, are American. A quarter of private-equity assets are in Europe.

All around the world

2

Private-equity firms by region*, '000

Year	North America	Europe	Asia	Rest of world	Total
1980	0	0	0	0	0
1990	0	0	0	0	0
2000	100	100	100	100	400
2010	1500	1500	1500	1500	5500
2015	3500	3500	3500	3500	7000

Source: Preqin *Managers' location

There are funds in Barbados, Botswana, Namibia, Peru, Sierra Leone and Tunisia.

The rise of private equity has always been subject to scepticism. When KKR launched the first big private-equity takeover, of RJR Nabisco in 1988, it and its cohorts were described in a bestselling book as the "Barbarians at the Gate". Success, adroit public relations and strategic philanthropy have tempered these concerns, and political donations probably haven't hurt, either. But the industry's limitations are still apparent, and current conditions are exacerbating them.

Private equity is structured around a small group of selective investors and managers whose efforts are magnified by the heavy use of leverage in the businesses that the funds control. This is an inherently pricey set-up. Investors need higher returns to offset illiquidity; interest costs are high to offset the risk that comes with leverage; managers who have demonstrated the skills needed to design these arrangements and to maintain strong relationships with providers of capital demand high fees.

During the industry's growth some of these costs were ameliorated by a long-term decline in interest rates, which enabled deals to be periodically refinanced at lower rates. Today rates can hardly go any lower, and should eventually rise. This is one of the reasons Mr Schulte and others see little growth to come.

Political positions

Another change is that banks which are under orders to curtail the risks that they face are reducing the amounts available for highly leveraged deals. That means borrowing will cost more. To see how that could throw a wrench into the system, look at the brief stretch between September 2015 and this February. The average yield on sub-investment grade, or "junk", bonds jumped from 7% to 10%. Transactions all but ceased. The value of assets held by private-equity firms with any public stub had to be written down, resulting in those poor first-quarter results. Money was suddenly unavailable for new deals. Carlyle's purchase of Veritas Technologies, announced just before the crunch, almost failed to close and was saved only after a renegotiation that led to a lower price and lower leverage.

The political environment, too, may be changing. The industry benefits from two perverse aspects of the tax code—the incentive it provides for loading up companies with debt, and the reduced rate of tax the general partners benefit from owing to most of their personal income being taxed at the rate applied to capital gains. There are strong arguments for reform under both heads. In the second of the two cases a change looks quite likely.

There is also a broader political risk, identified in a paper published in January

by professors at New York University and the Research Institute of Industrial Economics, a Swedish think-tank, called "Private Equity's Unintended Dark Side: on the Economic Consequences of Excessive Delistings". As companies shift from being owned by public shareholders to private-equity funds, direct individual exposure to corporate profits is lost. The public will become disengaged from the capital component of capitalism, and as a consequence will be ever less likely to support business-friendly government policies.

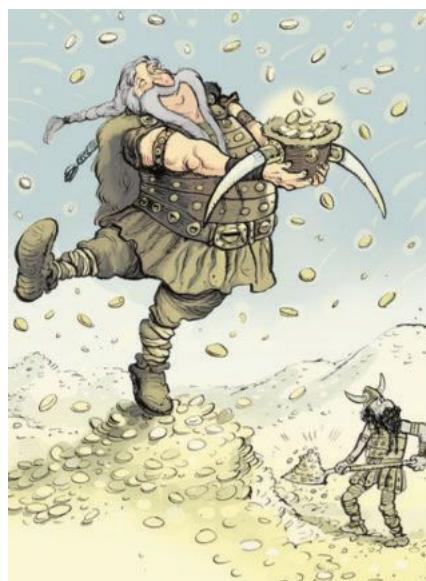
Another far-reaching question to consider is that sometimes the only truly "private" thing about private equity seems to be the compensation structure. The money within the funds is to a large extent either directly tied to public institutions (sovereign-wealth funds and municipal pensions), or, as a matter of public policy, tax-exempt (private foundations and school endowments). This irks both those who yearn for truly private markets and those dismayed at seeing public policy arranged so as to enrich particular groups of private citizens. The implicit tie between the allocation of funds, investments and the state creates a breeding ground for corruption and crony capitalism.

The madding crowd

The largest threat to the industry, though, comes not from its critics but its success, and those who seek to emulate it. According to Bain, the share of America's mid-sized companies controlled by private equity tripled between 2000 and 2013; for large companies it increased more than fivefold (see chart 4 on next page). That doesn't mean private equity is running out of road quite yet; but it does suggest that opportunities will get more scarce.

At the same time other kinds of entities with access to cheap and often state-related capital have entered the buy-out market, including Chinese multinationals (financed by state banks), sovereign-wealth funds and pension funds that want to invest directly, such as the Ontario Teachers' Pension Plan. That means more competition for new deals. In 2007 private-equity firms were responsible for 28% of the purchases of mid-sized health-care companies, according to Bain. In 2015 their share was only 8%. The trend has been similar, if not so pronounced, in the acquisition of retailers and companies involved in technology and consumer products. It is "the roughest environment for private equity I've ever lived in," Joshua Harris, a co-founder of Apollo, told attendees at a Milken conference in early May.

This may go some way to explaining the amount of money private-equity firms have on hand—their so-called "dry powder". Preqin puts the current pile at over \$1.3 trillion. Adjust for the leverage applied in private-equity deals (say two-to-one)



and that sum by itself would account for roughly 70% of the value of acquisitions carried out in 2015. If fertile fields beckoned, the amount of available cash would be shrinking, not rising. A confirmation of tight conditions comes from the willingness of the largest private-equity firms to look further afield for new opportunities. Blackstone now has larger investments in property, \$103 billion, than private equity, \$100 billion (plus an additional \$112 billion in hedge funds and credit). Less than half of Carlyle and KKR's invested assets are now in corporate equity, and just one-quarter of Apollo's.

Competition has had an impact on fees,



too. A decade ago the standard formula was a 2% annual management fee and 20% of profits. These are still the terms quoted. In reality, though, management fees have fallen to about 1.2%, according to one large firm—similar to what a plebeian mutual fund charges. The 20% slice of profits remains; but some clients are now allowed to "co-invest", matching the stake in a company they buy through a fund with a stake bought directly. That reduces the fees on the deal.

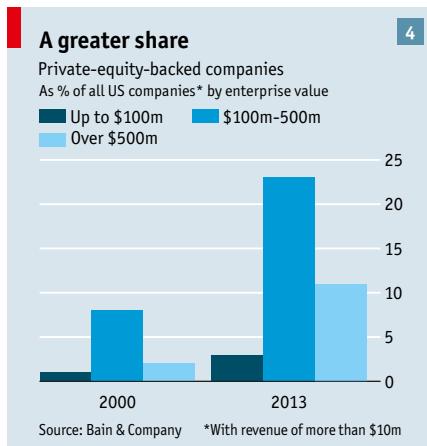
All good reasons for doubt. But although that mountain of dry powder may be a lack of opportunities, it also shows that there is a lot of money still eager to get in. Whether that is wise is not clear. The lack of daily pricing, used to assess mutual funds and, often, hedge funds, introduces doubt into the discussion of private-equity results. The "internal rate of return" measure that private-equity companies tout can be fudged. This makes academic assessments of performance hard.

This July, in an update of a previous study*, business-school professors at the Universities of Chicago, Oxford and Virginia found that, although in recent years buy-out funds had not done much better than stockmarket averages, those raised between 1984 and 2005 had outperformed the S&P 500, or its equivalent benchmarks in Europe, by three to four percentage points annually after fees. That is a lot. Ludovic Phalippou, also of Oxford, is more sceptical; he argues that when you control for the size and type of asset the funds invest in, their long-term results have never looked better than market-tracking indices. That said, getting the same size and type of assets by other means is not easy.

The average return, disputed as it may be, does not tell the whole story. Studies find some evidence that private-equity managers who do well with one fund have been able to replicate their success (though again the effect seems to have decreased in the past decade). The biggest inducement to invest may simply be a lack of alternatives. Private equity's current appeal rests not on whether it can repeat the absolute returns achieved in the past (which for the big firms were often said to be in excess of 20% annually) but on whether it has a plausible chance of doing better than today's lacklustre alternatives. This is a particular issue for pension funds, which often need to earn 7% or 8% to meet their obligations.

The standard explanation for why private equity might be expected to outperform the market is that it can ignore the dictates of "quarterly capitalism"—meaning impatient investors. This is not particularly convincing. The people who work for priv-

* "How do Private Equity Investments Perform Compared to Public Equity?", Robert Harris, Tim Jenkinson and Steven Kaplan, *Journal of Investment Management*, 2016.



Private-equity firms are a caffeinated bunch. During volatile times they often require constant updates on their portfolio companies' results, and can intervene to quash even the most trivial use of cash.

What does differ, though, is focus. Private-equity funds, the boards they put in place and the top managers who work for them all tend to concentrate on underlying performance to the exclusion of almost everything else. Public companies face a mountain of often incomprehensible or conflicting regulatory demands that are not relevant to performance; that delisting has risen in step with such demands seems unlikely to be a coincidence.

Disclosure requirements, in many ways the most appealing characteristic of the public company for investors, have come to constitute a legal vulnerability. A sharp drop in a company's share price can prompt litigation based on the idea that investors caught in the downdraft were unaware of a possible risk. So too could any internal discussion of a potentially controversial issue, as reflected by the New York attorney general's investigation into ExxonMobil's lack of disclosure on the risks associated with climate change.

Law is not quite the same sport outside America. But the ways that capital markets operate (or fail to) elsewhere provide other opportunities for private equity to outperform. In China, for example, the term structure for bank loans is only one year, and seeking the longer-term funding offered by a public offering means joining a government-controlled queue. Private-equity financing can be arranged in short order, with money coming in, and out, depending on the needs of the business.

A recent working paper published by Harvard Business School** summarises the possible benefits of private-equity ownership: the substitution of debt for equity, thereby reducing taxes and magnifying profits; compensation structures that

provide huge incentives to management for increasing benefits; the addition of new expertise; and transactional dexterity. Perhaps the most compelling point is speed. The upper managements and boards of firms the funds acquire are typically replaced within months. Purchases are done at what are perceived to be opportune moments. So too are sales and refinancings. When the public markets are cool, as has recently been the case, private-equity funds resist relisting holdings or taking on new credit, and may choose to repay some loans. When markets become accommodating, the flows reverse.

Public companies could do much of this, too. They tend not to, perhaps because their inner workings are more open to inspection and criticism. Sometimes they bring in private equity to do what they would not. After acquiring Kraft and Heinz in deals that a Brazilian private-equity firm, 3G Capital, also took part in, Warren Buffett of publicly traded Berkshire Hathaway explained things like this in his annual report: "We share with [3G] a passion to buy, build and hold large businesses that satisfy basic needs and desires. We follow different paths, however, in pursuing this goal. Their method, at which they have been extraordinarily successful, is to buy companies that offer an opportunity for eliminating many unnecessary costs and then—very promptly—to make the moves that will get the job done." Berkshire, it appears, with its annual meetings featuring happy shareholders applauding a jovial peanut-brittle-munching chief executive, outsourced the hard decisions to a less exposed firm happier to take them.

There are other reasons for public companies and private equity to co-operate. In 2015, when GE undertook a massive reduction in its finance arm, a quarter of the more than 100 transactions that quickly unfolded involved private-equity firms.

There were only three public offerings. As well as being speedy, private equity is innovative. When Walgreens Boots, a health-care company, sold a business providing intravenous fluid treatments to Madison Dearborn, a private-equity firm, it was able to retain a significant (if undisclosed) stake. This sort of transaction, which lessens the embarrassment of selling too cheap something which goes on to be a success, is referred to on Wall Street with a pejorative term that can be roughly translated as "sucker insurance".

They were a kind of solution

Given the flexibility private equity displays, the time may come when there are fewer questions about why a company is held in a private-equity structure rather than a public one. Less taxation, fewer operating constraints and less legal vulnerability are all attractive. There are political risks: structures which skew their benefits to the privileged are always subject to popular backlashes. But that potential vulnerability is also a source of strength. Raise your money from the very wealthy and asset-rich, and from institutions such as the pension funds of state governments and municipal workers, sovereign-wealth funds and universities with large endowments, and you get a certain clout.

In theory, there should be a cost to such privilege. Public markets are inclusive and deep; they should provide capital efficiently (meaning inexpensively and intelligently) and should, as a result, be the best solution for both companies and investors. They should thus outperform the competition. Alas, at the moment it seems that internal and external constraints on public companies are holding that performance in check. The result is that the old lions of private equity, and their many cubs, could be making themselves ever more comfortable for decades to come. ■



** "What Do Private Equity Firms Say They Do?", Paul Gompers, Steven Kaplan and Vladimir Mukharlyamov, Working paper, Harvard Business School, 2015.



Thailand's monarchy

An empty throne

As Thais mourn their king, confusion swirls over the succession

WHITE tents encircle Sanam Luang, a vast grassy parade ground in the heart of Bangkok. From their shade volunteers distribute simple meals, cold water and ice creams to crowds dressed in black or white. Off-duty rescue workers stir deep basins of diced chicken, turning the sizzling mixture with scoops the size of spades. A soldier in camouflage hands out sweets.

The refreshments have been laid on for mourners waiting to pay their respects to Bhumibol Adulyadej, Thailand's king, who died in hospital on October 13th. His body rests in the Grand Palace, an enormous white-walled complex just across the road, where it will stay for the next year. Visitors to the palace kneel before a picture of the king; soon they will be allowed into a throne room containing his coffin. Next year Sanam Luang will be the site of the royal cremation pyre—an ornate wooden pavilion which will probably take weeks to build.

Immediately after the king's death was announced all television stations suspended their normal programming in favour of documentaries about him, streamed in monochrome from a government pool. Newspapers and magazines started publishing in black and white; many websites did too. Funereal bunting now hangs from government buildings, as well as some banks and big department stores. Ads have stopped gushing from video billboards; noisy concerts and some festivals are post-

poned. Authorities have declared an end to the professional football season, abandoning several rounds of matches.

Yet while grief is deep and genuine, in most practical ways Bangkok chugs on. Authorities declared a public holiday on the day after King Bhumibol's death, but only after some commuters had already left for work. Bangkok's stock exchange opened as usual, earning back some of the losses it had incurred earlier in the week. Public services and almost all businesses are operating normally, though some bars remain subdued. Everyday life has returned quickest outside the cities and in less royalist provinces, far from the capital, where black-clad mourners are rarer.

There are limits

Sensing the mood—and probably eager not to harm the economy—the military junta which has ruled Thailand since 2014 has toned down some of its early edicts. After negotiations with TV bosses the junta decided that stations would be entitled to run their own programming from the evening of October 14th, rather than waiting 30 days as planned (they have promised not to air anything too frivolous). The government wants public servants to wear mourning garb for a year; it says it will hand out black shirts to the poor, as well as teach them how to dye clothes they already own. But it is possible that simpler gestures, such as sporting a black ribbon,

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will eventually suffice.

Little flexibility is evident, however, in the enforcement of Thailand's strict *lèse-majesté* law, which in practice criminalises all but the most banal analysis of the palace's influence, and which can make it risky to intimate that esteem for royalty is uneven and nuanced. The government was quick to "deplore" foreign coverage of the occasion. It accused journalists of playing down the size of mourning crowds, but probably only because it did not dare mention even more vexing content, including analysis of the king's questionable democratic credentials and the crown prince's louche personal life. Cable providers have temporarily interrupted local transmission of the BBC's international news channel when it has covered the mourning.

The government has asked local internet providers to monitor their networks around the clock, warning that it would pursue those found to be carrying content which might offend the grieving. It advertised e-mail addresses and phone numbers allowing Thai web-users to report worrisome content directly to the ministry of communications. Prompted by royalist groups, it says it will renew vain efforts to persuade foreign governments to extradite Thais whom royalists accuse of insulting the royal family from abroad.

Of most concern are a handful of cases in which mobs of mourners have gathered outside the homes of Thais accused of making comments they consider insensitive. One man was beaten, his assault streamed on social media by a bystander; police forced a woman to prostrate herself in apology before a picture of the king, watched by a jeering crowd. The junta has condemned such incidents, but on October 18th the justice minister appeared to agree that "social sanctions" were a good way of dealing with Thais who refuse to re-

►spect the monarchy.

Thailand will find it easier to get back to business once the next king's reign begins. For the moment the succession is strangely stalled. Prayuth Chan-ocha, the coup leader turned prime minister, says Crown Prince Maha Vajiralongkorn has asked not to be proclaimed king until after the country has had more time to grieve. By law Prem Tinsulanonda, the 96-year-old chief

of the former king's privy council, will serve as regent in the interim.

This turn of events has surprised everyone, apparently including the junta. It is not unusual for a new king to postpone his coronation until mourning for his predecessor is over, nor even unheard of to leave affairs in the hands of a regent (in the early years of his reign the young King Bhumibol did both). But delaying the formal accla-

mation of the new monarch by parliament is a strange decision indeed.

The wildest speculation is that the crown prince is still deciding whether or not he wants the job—or that aristocrats inside the court are trying to persuade him to decline it. Prince Vajiralongkorn is not much loved by the masses and widely loathed among Bangkok's elite, who fear his reign will dent the monarchy's prestige. For years there have been rumours of efforts to elevate a better-loved royal.

The longer Thailand's odd interregnum persists, the more credible these theories will become. For the time being the prevailing view in Bangkok is that the succession will eventually proceed. The prime minister has assured Thais that the crown prince will accept the throne. Mr Prayuth says he may be acclaimed within days; other officials suggest the wait will be longer. Some commend the prince's decision to forgo the crown briefly, seeing it as a sign of humility and respect. But for many Thais the gesture appears not to be dispelling misgivings but sowing confusion. ■

Bhutan

Happy-grow-lucky

THIMPHU

The stars align for a reclusive kingdom

THE national sales pitch of Bhutan sounds oddly boastful for a shy mountain kingdom. "Happiness is a place," it declares. But for the numerologically obsessed citizens of this Switzerland-sized country squashed between India and China, happiness may also be a time. This year happens to be not only the 400th anniversary of Bhutan's creation as an independent state, but also the most auspicious point in the 60-year cycle of Bhutanese astrology: the Year of the Fire Male Monkey marks the birth anniversary of the country's patron saint, Guru Rinpoche, a powerful 8th-century mystic who conquered demons and spread Buddhism across the Himalayas.

This year also began with the best of news for the 750,000 Bhutanese: the birth of a male heir to Jigme Khesar Wangchuck, the fifth in the line of Druk Gyalpos or Dragon Kings. Loyal subjects, which is to say just about everyone, now beam that they have not one but three kings: the reigning monarch, who is 36, his baby son Jigme Namgyel, and also the fourth king, Jigme Singye. The king-father, as he is known, ruled the country for 34 years, gently steering Bhutan out of isolation and towards democracy before his abdication in 2006. Still hugely popular, the 60-year-old ex-king lives in a modest house outside the capital, Thimphu, visits his children and grandchildren by four wives (who happen to be sisters) and is occasionally spotted cycling along country roads.

Outside Bhutan the fourth king is best known for his institution, in the 1970s, of Gross National Happiness as a measure for national achievement. Despite the government's best intentions, improving GNH remains a vague goal. Yet by more pedestrian measures Bhutan is doing very well. The Asian Development Bank expects GDP to grow by 6.4% this year. For a country that had no secular schools before the 1950s, no paved roads before 1961, no commercial airport before 1983 and no television, internet or mobile-

phone network before 1999, the progress is striking. Infant mortality has halved since 2000 and poverty fallen by 90%. Incomes have tripled and the spotless capital, where one in five Bhutanese now lives, buzzes with new cars and new buildings that are, without exception, painstakingly adorned with mythical symbols to ward off evil. To know whether a day is auspicious, Bhutanese now consult not monks but smartphone apps or the state broadcaster's website.

Whatever the stars say, Bhutan's fortune also hinges on the whims of its twin neighbours and their 2.5 billion people. Fearful of China, India has long subsidised Bhutan's budget. The country's biggest export, hydroelectric power, relies on Indian capital and demand. The Indian army builds Bhutan's roads; its "training camps" block possible Chinese invasion routes. But a more likely invasion is of tourists. Chinese already make up 20% of Bhutan's visitors; from their smoky cities its green hills look tempting indeed.



A Bhutanese GDP chart

South Asian media

All hail

DELHI

India's press is more craven than Pakistan's

THERE is no question that India's democracy is stronger than Pakistan's. It is less prone to coups and violence. Its minorities are more secure. And, most Indians assume, their media are freer. When Cyril Almeida, a Pakistani journalist, revealed earlier this month that he had been banned from travelling abroad after writing a story that embarrassed Pakistan's security forces, India's tabloid press gloated.

The *Schadenfreude* proved short-lived. To general surprise, Mr Almeida's colleagues rallied in noisy support. Pakistani newspapers, rights groups, journalists' clubs and social media chorused outrage at his persecution. The pressure worked; the ban got lifted.

Mr Almeida had been reporting on tensions between the Pakistani army and civilian leaders over the border crisis with India, which began last month when infiltrators from Pakistan killed 19 Indian soldiers. On the Indian side of the border, however, there has not been much critical examination of the government's actions. Instead, Indian media have vied to beat war drums the loudest.

When an army spokesman, providing very few details, announced on September 29th that India had carried out a retaliatory "surgical strike" against alleged terro-

►rist bases along the border, popular news channels declared it a spectacular triumph and an act of subtle statecraft. Some anchors took to describing India's neighbour as "terror state Pakistan". One station reconfigured its newsroom around a sand-box-style military diorama, complete with flashing lights and toy fighter planes. A parade of mustachioed experts explained how "our boys" would teach Pakistan a lesson it would never forget.

Such jingoism was predictable, given the fierce competition for ratings among India's news groups. Disturbingly, however, the diehard nationalists have gone on the offensive against fellow Indians, too.

This month NDTV, a news channel with a reputation for sobriety, advertised an interview with Palaniappan Chidambaram, a former finance minister from the opposition Congress party. Mr Chidambaram was expected to say that previous governments had also hit back at Pakistan, but with less fanfare than the present one. Abruptly, however, NDTV cancelled the show. An executive sniffed that it was "not obliged to carry every shred of drivel" and would not "provide a platform for outrageous and wild accusations".

Arnab Goswami, the anchor of a particularly raucous talk show, has declared that critics of the government should be jailed. Extreme nationalists in Mumbai, India's commercial capital, have urged filmmakers to ban Pakistani actors. One party has threatened to vandalise cinemas that dare show a Bollywood romance, "Ae Dil Hai Mushkil", due for release later this month, which features Fawad Khan, a Pakistani heartthrob. The film's director, Karan Johar, has aired a statement declaring his patriotism, explaining that the film was shot before the current trouble and promising never again to work with talent from "the neighbouring country". One commentator described his performance as akin to a hostage pleading for mercy.

Why, asks Mr Chidambaram, are the media toeing the government line so slavishly? Some answer that they have become ever more concentrated in the hands of big corporations, many of which carry heavy debts and so are wary of offending the party in power. Others ascribe the shrinking space for dissent to the unchecked rise of chauvinist Hindu-nationalist groups. Repressive colonial-era laws on sedition and libel also play a part.

Happily, India's press still brims with multiple voices. Critics of Mr Modi may worry about internet trolls, but they do not fear assassination by terrorists or shadowy government agencies, as those in some neighbouring states do. The Indian public is, in fact, tired of endless brinkmanship with Pakistan and yearns for stronger, more effective government. Of course, to be truly strong and effective, governments need to tolerate and even heed critics. ■

Assisted suicide in Australia

On the brink

SYDNEY

South Australia contemplates legalising assisted dying

THE state of South Australia is often in the vanguard of social change. In 1894 it became the first place in the world to let women stand for parliament; in 1976, the first English-speaking jurisdiction to ban rape within marriage. It was the first place in Australia to decriminalise gay sex and outlaw racial discrimination. Now its parliament may make it the first Australian state to legalise assisted dying.

This week two members of the state parliament introduced a bill that would allow terminally ill patients to end their lives with medical assistance, provided that doctors thought they had six months or less to live, that their suffering was "intolerable" and that it could not be relieved by any "reasonably available medical treatment". Assisted dying is legal only in Colombia, Canada, a few European countries and a handful of American states. But the practice has a long history in Australia. In 1996 the Northern Territory became the first place in the world to legalise it. Four people made use of the law in the nine months before Australia's federal government overturned it and passed a law to prevent Australia's three self-governing territories from legislating on the matter.

But the federal government cannot overturn laws in Australia's six states. Assisted-dying bills have been introduced in South Australia's parliament 14 times since 1995. Marshall Perron, the chief minister of the Northern Territory when it permitted assisted dying, sees a growing national momentum behind the idea. Bills introduced in South Australia in 2012 and Tasmania in 2013 were both defeated by just two votes. In Victoria, a cross-party parliamentary inquiry has endorsed legalisation. Polls suggest 70-75% of Australians support it. "The politicians lag the community's expectations by a very significant degree," says Mr Perron.

The Labor majority in South Australia's parliament includes several devout Catholics such as Tom Kenyon, the chief whip. He has urged Christians to "pray for defeat of this bill". But the state premier, Jay Weatherill, backs it; the opposition leader, Steven Marshall, has been evasive. Both parties intend to allow members to vote according to their conscience.

Nat Cook is a Labor MP and former nurse who has "seen the terrible suffering people go through" and is satisfied that the bill contains enough safeguards, such as a requirement for patients to be assessed by

two doctors, to prevent abuse. In Victoria the parliamentary inquiry heard testimony from the state's coroner, John Olle, about elderly people driven to lonely suicides. He mentioned the case of a 90-year-old who killed himself with a nail gun.

But opponents say it would be better to improve end-of-life care. Richard Chye, director of palliative care at a big Sydney hospital, says 5% of patients ask for their lives to be ended, but most change their minds after receiving effective pain relief. Paul Russell of Hope, an anti-euthanasia group, says: "Whichever way you look at it, euthanasia is an act of killing. Do we really want to cross that Rubicon?" The answer is uncertain. The vote on the South Australian bill, both its supporters and opponents agree, will be close. ■



Maternity culture in Japan

No pain, no gain

TOKYO

Why expectant mothers in Japan don't get pain relief

THE Mejiro Birth House in a northern district of Tokyo is eerily quiet: no babies crying, no wails of women in labour. That, explains Yuko Hoshino, the chief midwife, is because it is empty. Only four to six babies are born there each month, compared with 14 to 16 a few years ago. The problem is not just Japan's low birth rate. "Fewer women want a natural birth today," she says ruefully. "They go with doctors in hospitals rather than with midwives in birth houses."

The culture of maternity in Japan is slowly becoming more like the rest of the rich world, but several practices differ. Women are generally treated as fragile during their pregnancy. But during labour it-►

► self they are expected to suffer. Painkillers are doled out sparingly, if at all. Doctors say growing numbers of women are keen to have an epidural (an anaesthetic injected into the spine), but few obstetric centres, hospitals included, offer them, and almost never outside normal working hours. The payment of ¥420,000 (\$4,053) that the national health-insurance scheme makes towards the cost of having a baby would not typically cover one, anyway.

For most women, however, the issue is neither the cost nor the longer time it takes to recover after an epidural. Local Buddhist tradition holds that women should embrace the pain of natural childbirth. The experience is said to prepare them for the challenges of being a mother and to encourage bonding with the baby. Yoshimi Katsume, who is 35, says her parents criticised her when she told them she would be having an epidural at the birth of her first child. Nonetheless, she plans to have one again when the baby she is now expecting is born.

More fathers attend births than used to be the case, but many still don't come into the delivery room. "My husband will come to the hospital, but we have yet to decide whether he will come into the room," says Mayuka Yamazaki, who is expecting her first child this month. "I am not sure if I want him to see me like that."

In most countries, the received wisdom about what women should do in pregnancy relies as much on the local culture as on science. Expectant mothers in France drink wine and eat pâté, for instance; their American counterparts see this as one step short of infanticide. In most places pregnant women would be steered away from raw fish, but not in Japan. The main obsession, however, is with body temperature. While Western mothers-to-be are advised not to get too hot, those in Japan are told to keep warm. They happily bathe in hot springs but avoid ice cream and chilled water. Restaurants offer blankets to pregnant women, even in the height of summer.

One element of the standard advice for pregnant women in Japan is worrying, however. The country has a high and rising proportion of underweight babies, defined as 2.5kg or less at birth. In 2015 9% of babies were underweight. One reason, says Zentaro Yamagata of the medical department of University of Yamanashi, is that women do not put on enough weight during pregnancy. Doctors advise their patients to put on no more than 6-10kg, compared with 11-16kg in Britain.

The government, which is keen to push up the fertility rate from the current 1.5 children per woman to 1.8 to slow the shrinking of Japan's population, might ponder all this. The causes of Japan's demographic decline are many and to some degree intractable. But making childbearing a less forbidding experience could not hurt. ■

Preservation in India

Brick by brick

LUCKNOW

Battling to save old buildings in a city with an embarrassment of them

HIDDEN behind the fashion boutiques of Mahatma Gandhi Marg in Lucknow is an architectural gem. The mausoleum of Amjad Ali Shah, a king of Oudh, was built in the 1840s in Indo-Islamic style. Though large, it is delicate, with fine flowers in red plaster over the archways. But Mohammad Haider, a trustee of the mausoleum, mostly spies threats to the monument. He stalks the courtyard, snapping pictures of parked cars and ticking off a building labourer for dumping a large pile of rubble. "Illegal," he says. "All illegal."

India has an enormous number of beautiful old buildings and an instinct for preserving them, which it inherited partly from its colonial rulers. Unfortunately, the country also has a corrosive climate, a growing crush of people and cars in its cities and a bureaucracy that is sadly not up to the task of preservation. Its heritage is crumbling. But in Lucknow, a northern city blessed with many historic buildings, that is starting to change.

In the early 20th century India's British rulers drew up a list of monuments worth protecting, which has hardly changed over the years. Today the Architectural Survey of India (ASI) oversees some 3,600 sites, with a heavy emphasis on colonial cemeteries. The Amjad Ali Shah mausoleum made the cut, along with 60 other monuments in and around Lucknow. Many others did not. Not surprisingly, the British did not list the Rifa-e-Aam Club, an important nationalist hangout. Once glorious, it is now in an awful state. One wing has become a hospital, while squatters inhabit other rooms. The courtyard doubles as a bus

station and a rubbish dump.

Even an ASI listing is no guarantee that a building will be preserved. One of Lucknow's finest buildings, the Chhota Imambara (pictured), was recently "repaired" with modern cement, wrecking its subtle plasterwork. Mongooses scurry in and out of protected buildings; crows nest in rotting cupolas. It can be hard to find artisans who know how to handle traditional plaster and other authentic materials, says N. K. Pathak, the ASI's superintending archaeologist in Lucknow. Some conservation architects say the ASI simply isn't up to the job.

Yet there are signs of a turnaround. The national government has increased the penalties for damaging protected buildings and stiffened a 100-metre exclusion zone around monuments, where (in theory) nothing can be built. Some of Lucknow's monuments are now being sensitively repaired. There is even slight evidence to suggest that antiquity is becoming a selling point, rather than an irksome obstacle to development. Perhaps the best-preserved colonial building in Lucknow is Constantia, owned by an elite private school.

Above all, Lucknow has Mr Haider. A one-man preservation movement, he drives out encroachers, harries the ASI and files endless petitions to the courts (when not defending buildings, he works as a corporate lawyer). In the past few years he has driven four car-repair shops from the courtyard of the Amjad Ali Shah mausoleum. But the battle never stops. As your correspondent leaves the courtyard, two labourers with baskets of rubble on their heads turn to go inside.



A mongoose-magnet

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Banyan | Duterte's pivot

Is the Philippines, until now a staunch American ally, falling into the Chinese camp?



EVEN in a year of extraordinary reversals, few would have expected it. In July China reacted with fury when an international tribunal upheld a complaint from the Philippines and rubbished China's territorial claims in the South China Sea. This week it is rolling out the red carpet for the mercurial Philippine president, Rodrigo Duterte. He is being feted in a four-day state visit, with 400-odd businessmen in tow. Rub your eyes: America's strongest ally in South-East Asia appears to be plopping like a ripe mango into China's hands.

Consider what Mr Duterte, in power since June, has said in recent weeks. He has branded Barack Obama a "son of a whore" for criticising his "kill them all" war on drug dealers and addicts, which has claimed thousands of lives, many of them innocent. He has demanded an end to joint naval patrols and to America's assistance in the southern jungles of Mindanao, where American special forces advise Filipino troops fighting against Abu Sayyaf, a violent group linked to al-Qaeda. And he has questioned whether America would honour its treaty obligation to come to the Philippines' aid if the archipelago were attacked.

What that means for the American "pivot" to Asia scarcely bears thinking about. But do the eyes deceive? American officials—from Admiral Harry Harris, commander in the Pacific, down—insist that all is dandy. Joint naval patrols continue, as does co-operation in Mindanao; and America still has five bases on Philippine soil. The close working relationship with Filipino counterparts, the Americans insist, is as strong as ever. The Filipinos, for their part, report no change of orders from the new chief.

Yet Mr Duterte talks of China like a moonstruck lover. On the eve of his visit he told Xinhua, the Chinese news agency, that China's generosity to poor countries was without reproach. China "deserves the kind of respect that [it] now enjoys...It's only China that can help us." He has been at pains to point out that one of his own grandfathers was Chinese. Thrilled, the Chinese ambassador in Manila talks of "clouds fading away" and the sun rising to "shine beautifully on the new chapter of bilateral relations".

What is Mr Duterte up to? Bear in mind that development and growth are his priority—one reason for his sky-high popularity in a country with an entrenched plutocracy lording it over legions of urban and rural poor. But development needs capital, and the

Philippines has been excluded from recent Chinese largesse showered around the rest of the region. Relations suffered in 2012 after China dislodged the Philippine navy from the Scarborough Shoal, which is just over 200km from the Philippines proper, within its exclusive economic zone, and almost 900km from China. Filipino businesses have struggled in China, while little Chinese investment has come to the Philippines. The tribunal's ruling only made matters worse: afterwards, China told even its tourists to stay away.

The Philippines had been plucky in standing up to China. But it has paid a price. Now, the goodies that China is dangling look irresistible. Mr Duterte wants lots of infrastructure, particularly railways. China is offering cheap loans. He wants the country to export more. China is offering to reopen its markets to Philippine fruit. He wants help with the war on drugs. A Chinese businessman is building a big rehab centre. And he wants Filipino fishermen to be able to return to their traditional fishing grounds around the Scarborough Shoal. China has told Philippine officials that it is open to an accommodation.

Perhaps America, in banking so much on its plucky ally, should have been more clear-eyed about the cost to the Philippines of standing up to Chinese aggression in the South China Sea. Perhaps, too, it should not have assumed that all Filipino politicians have an instinctive allegiance to America.

Although Filipinos are overwhelmingly pro-American, they are also patriotic. The American colonial period saw its share of atrocities, especially in Mindanao. One colonial general mused that it might be necessary "to kill half the Filipinos in order that the remaining half of the population may be advanced to a higher plane of life". Mr Duterte himself says he was molested by an American priest as a child. The landed elite that he claims to be displacing achieved its ascendancy under American rule. And standing up for the little guy is part of his shtick. The insistence of his foreign secretary, Perfecto Yasay, that Filipinos will not be America's "little brown brothers" does not go down too badly.

Yet it is not only Americans who lament the impetuousness of Mr Duterte's tilt to China: many Filipinos, including senior officials, are worried sick. Jay Batongbacal of the University of the Philippines fears Mr Duterte "is squandering all the practical leverage that comes from being in alliance with the United States"—without knowing what assurances, in terms of sovereignty in the contested South China Sea, the Philippines will get in return.

Bide your time

It is a reckless approach, but not necessarily a lasting one. For the time being, China wishes to draw the Philippines into its camp. That is why it has not yet attempted to build the kind of military facilities on Scarborough Shoal that it has constructed on other reefs in the South China Sea and that many Western analysts had assumed were imminent.

But China will have to offer more than fishing rights to make any deal acceptable to Filipinos. Even the China-loving Mr Duterte has talked about leaping onto a jet ski to defend the Philippines' interests in person if need be. So the Chinese idea of a "package deal" in which Chinese sovereignty over the Scarborough Shoal is acknowledged in return for fishing rights which Filipinos had anyway long enjoyed will be greeted as an insult back in the Philippines.

America, in short, can be patient. The Philippines may yet return to its camp. If so, both sides will claim it never left. ■



Politics

Master of nothing

TANGSHAN

One of Xi Jinping's biggest challenges is age-old: local officials don't listen

BY NIGHT the fires of Tangshan burn and the air stinks. In this city in the northern province of Hebei, more than 100,000 people work in factories making steel and many more in firms serving the industry. "Save energy and cut emissions," reads a red slogan outside one plant, heavy machinery roaring within. Earlier this year China's president, Xi Jinping, ordered the steel business to cut production. Small and inefficient mills like this one were supposed to close and larger ones to shut down some furnaces. Yet many still operate around the clock. Their city is close to Beijing, virtually on Mr Xi's doorstep, but the steel bosses openly flout his orders.

Nearly four years into his rule, Mr Xi is commonly described as the most powerful Chinese leader in decades. He has taken charge of all the most important portfolios, cultivated a huge personal following and purged his opponents. Bypassing ministries, he rules through informal "leading small groups", heading so many of them that foreign commentators have labelled him "chairman of everything". Rumours fly (without evidence) that Mr Xi may even try to extend his powers beyond the normally allotted ten years. Given his seeming strength, it would be logical to suppose that he could do almost anything he pleases. The toiling mills of Tangshan, however,

suggest how hard the president often finds it to persuade local officials to carry out his wishes. Mr Xi may be chairman of everything, and he may well be stronger than any leader since Deng Xiaoping. But in a country so vast, diverse and with so many entrenched interests, he often seems to be master of nothing.

Mr Xi spars with crusty generals, powerful bureaucracies and large state-owned enterprises controlled by the central government. But an even greater impediment to his power is an age-old one: local authority. This is reflected in a popular saying that refers to the compound in Beijing where China's leaders live and work: "Policies do not go beyond Zhongnanhai."

Xi's out of control

As the Communist Party prepares to hold a five-yearly congress late next year at which sweeping leadership changes will be announced, Mr Xi is fighting on two broad fronts. One is with rivals in Beijing who want the reshuffle to favour their own cronies. The other is with footdraggers in the provinces who want to do their own thing, regardless of who wins in the capital. It is with the wider country in mind that Mr Xi is now focusing on what he calls "party building", ie, instilling loyalty and discipline into the party's myriad cells. This will

be a theme at an annual four-day meeting of 350 or so of the party's most senior members that is due to begin on October 24th. In July Mr Xi warned starkly what a slackening of discipline could mean: "Our party will sooner or later lose its qualifications to govern and will unavoidably be consigned to history."

China is eminently capable of getting things done, even in the face of considerable *NIMBY*ist resistance. Its thousands of miles of high-speed rail and its mushrooming cities testify to that. But because its leaders are afraid to delegate power, they can give their attention only to a limited range of priorities. Many government schemes, particularly ones that are tricky, pricey or unpalatable to local politicians, go largely unheeded.

Strikingly, Mr Xi even sometimes fails to implement policies that he has declared to be a priority. He reportedly said that he had the capacity to tackle only one big economic issue this year, and that was to trim the bloated steel and coal industries. As a result, in February, the government revealed plans to cut steel capacity by 100m-150m tonnes in the next five years and surplus capacity in coal production by 500m tonnes. To give his edict extra prominence, officials took the rare step of inviting foreign journalists to Zhongnanhai to quiz a deputy finance minister on it.

Yet, as the smoky streets of Tangshan show, the president's stentorian words do not always translate into local deeds. Since February, steel output has risen nationwide every month year-on-year (see chart on next page). By the end of July producers had cut less than half of the capacity they were supposed to. Custeel, an industry body, says this includes many facilities that ►

had already been mothballed. The central government admits that only four provinces have made substantial progress out of the 22 for which it has published results. Only one of the four, Jiangsu, is among the big steel-producers.

Local businesses often pay more heed to the market than to mandates. Some larger mills relit their burners as global steel prices rose. Local governments have their eye on their revenues, too. Hebei produces nearly a quarter of China's steel. In places like Tangshan the steel industry contributes substantially to tax revenues. Local banks risk writing off large loans if mills have to shut. At one, Tangshan Baotai, workers live on-site in low, grey housing. Those who lose their job lose their home as well. Local governments fear that layoffs could fuel unrest.

People desperate to get on China's property ladder may wish that their plenipotentiary president could do better. Mr Xi was clearly behind measures announced this month aimed at holding down soaring house prices in the biggest cities. But this effort seems as doomed as previous ones, partly because local governments delight in the market's surge. Selling land is a big source of their income; big cities control a very limited supply of it, because of tight restrictions on their expansion.

The weakness of Mr Xi in the face of local power has been evident even in his efforts to curb tobacco use (his wife, Peng Liyuan, is an "anti-smoking ambassador"). In 2015 he backed a stringent ban on smoking in indoor public places in Beijing. Yet a recent draft of a law to enforce this nationwide offers a big loophole: smokers would still be able to use designated indoor areas. The interests of tobacco-producing areas may explain why. In Yunnan province in the south-west, tobacco accounts for over half the tax take, compared with 7.5% of government revenue in China overall.

Policies that lack the president's personal endorsement are all the more likely to stall. For example, there has been little progress in reforming hospitals, despite widespread anger at doctors who boost their incomes by prescribing expensive drugs that patients have to pay for. Local officials reckon this gouging is preferable to paying doctors better wages from government funds.

Despite outcries, too, over appalling lapses in food safety, and high-level promises to improve it, enforcement has not been markedly strengthened. Provincial agencies do not have the will, capacity or financial incentive to regulate the food chain. Officials in Beijing privately admit

Correction: Last week we reported that during a swearing-in ceremony at Hong Kong's Legislative Council, one member had draped himself in a banner saying "Hong Kong is not China" and two others had pronounced "China" in a derogatory way ("No swearing", October 15th). In fact, two legislators displayed such a banner. The same ones mispronounced China.

Stealed against Xi

Crude steel output, % change on a year earlier



Source: Wind Info

that localities cannot afford to carry through a nationwide plan for reducing soil pollution that was announced in May.

The problem is partly one of the party's own making. Since the late 1970s the central government has deliberately delegated much decision-making to lower levels of government, encouraging local officials to launch pilot projects and spread good practice. This has helped the economy become agile and adaptable. But it has also made top-down government more difficult, sometimes to the detriment of reform. China's political system displays "fragmented authoritarianism", as Kenneth Lieberthal of the Brookings Institution calls it.

Raising the red lanterns

Market forces, rather than political ones, increasingly dominate government decision-making beyond the capital—as long as social stability is not compromised. And with the flourishing of private enterprise, and the collapse of many state-owned firms, the party's once omnipresent and all-powerful cells have atrophied and weakened. So Mr Xi wants to put politics back in command. In a private speech he gave only a month after taking power in 2012, he railed that the Soviet Union had collapsed because nobody in the party had been "man enough to stand up and resist"; he noted that Russia's corrupt security services had "left the party disarmed". He evidently saw signs of similar laxness taking hold in China.

Mr Xi's fierce campaign against corruption has been aimed at tightening his grip and strengthening the party's discipline (as well as settling scores with enemies). Hundreds of thousands of officials have been punished for graft. At the same time, Mr Xi has tried to instil a sense of accountability among local officials. The country's latest five-year plan (a quaint reminder of the days when the central leadership pulled more levers) for the first time makes local officials personally liable for causing environmental damage, even if it is discovered only after they have left office. The government now threatens to punish civil servants who ignore court rulings or fail to

observe party policies.

But it is hard to legislate for loyalty. The party's discipline-enforcement agency said this month that party leadership had "weakened" in four provincial-level areas, implying that this had continued even after the agency had read them the riot act. The errant regions include the municipality of Tianjin near the capital. Jin Canrong of Renmin University in Beijing said in a recent lecture that Mr Xi was facing widespread "soft resistance" among local elites. Instead of openly opposing him they were practising "inaction" instead. Mr Jin concluded that all policies were "empty".

The fight against corruption may have scared officials, but even fear is no match for bureaucratic inertia. Next week's gathering of party leaders is unlikely to help much. Xinhua, a state news agency, says they will adopt measures to improve the party's ability at "self-cleansing, self-consummating, self-innovating and self-enhancing". That does not sound like much of a game-changer.

At least the meeting may help Mr Xi strengthen his position in Zhongnanhai. It will launch preparations for next year's congress, after which five of the seven members of the Politburo's Standing Committee are due to retire, along with one-third of the Politburo's other 18 members. The Politburo's current make-up was largely decided by Mr Xi's predecessors. This will be his chance to stack it with his allies.

There will be much speculation about which one of them, if any, will succeed him. Some analysts believe he has no successor in mind, and interpret his willingness to flout party convention as a sign of Mr Xi's self-confidence. Yet it may be that he does not want to start grooming an heir (in China, this tends to begin very early). If so, that could suggest something else: that neither at the centre nor in the provinces does Mr Xi feel strong enough. Therefore he cannot trust anyone else with what he calls his "Chinese dream" of the country's "great revival". ■





Election 2016

Hating Hillary

NEW YORK AND WASHINGTON, DC

America's probable next president is deeply reviled. Why?

TO UNDERSTAND how well-regarded Hillary Clinton was as a senator and then as secretary of state, forsake those closest to her. A coterie of longtime retainers, such as her factotum Huma Abedin and Maura Pally of the Clinton Foundation, appear to worship her with a protective fury that admits no fault. But then also discount the views of those sometime Clinton associates who earn their bread by trashing the Democratic nominee—such as Dick Morris, inventor of the phrase “triangulation” to describe Bill Clinton’s political method. When not writing anti-Hillary polemics, he is chief political columnist of the *National Enquirer*, a tabloid which describes the 68-year-old candidate as a predatory lesbian on the edge of death.

For a more dispassionate critique of Mrs Clinton, who is reckoned to be the second-most-unpopular presidential nominee ever, after her Republican opponent, Donald Trump, listen to some of the less partial operatives and politicians who have worked with her over the past 25 years. Less favoured Clinton retainers offer more nuanced praise of their boss than the gilded coterie. A workaholic, she is relentlessly demanding of her employees’ time and loyalty and can be icily critical, sometimes unfairly, says an aide who has been drawn into playing a much bigger role in Mrs Clinton’s campaign than she wanted: “Hillary’s not always warm and fuzzy.” But

by the standards of most politicians she considers Mrs Clinton a decent boss—one who calls her staffers on their birthdays and when they are bereaved: “Not many senators do that.”

Mrs Clinton’s former congressional colleagues—including the Republicans she wooed assiduously on Capitol Hill, though they had sought to destroy her husband’s presidency, and her, in the 1990s—speak even more admiringly of her. “I got on very well with her, she’s a likeable person. When it comes to dealing with Congress, she’d be a big improvement on Barack Obama,” says Don Nickles, a former Republican senator from Oklahoma who helped wreck the health-care reform Mrs Clinton tried to launch in 1993, and with whom she then worked to extend unemployment benefits. “She’s hard-working, true to her word and very professional,” says Tom Reynolds, a former Republican congressman who collaborated with her in upstate New York. “That’s not just in the Senate. She’s been like that all her life.”

This, to put it mildly, is not a characterisation supported by Mrs Clinton’s ratings. Around 55% of Americans have an unfavourable view of her; about the same number do not trust her (see chart). Yet, among those who know Mrs Clinton, even critics praise her integrity. She is a politician, therefore self-interested and cynical at times—yet driven, they say, by an over-

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arching desire to improve America. More surprising, given the many scandals she has been involved in, including an ongoing furore over her use of a private e-mail server as secretary of state, not many of those who have dealt with her seem to think her particularly shifty. Even some of her foes say the concern about her probity is overblown. “People can go back decades and perhaps criticise some of the judgments that were made,” Michael Chertoff, who was the Republican lead counsel in one of the first probes into Mrs Clinton, the Senate Whitewater Committee, but has endorsed her, told *Bloomberg*. “That is very, very insignificant compared to the fundamental issue of how to protect the country.”

What then explains the depths of Mrs Clinton’s unpopularity, which on November 8th will drive millions of Americans to justify voting for a man whom they have heard boast of groping women? Having opened up a six-point lead in recent weeks, she is nonetheless likely to prevail. Yet she would return to the White House as its most-reviled new occupant of modern times. Mr Trump has suggested she could even be assassinated—and the experience of his rallies suggests he might be right. Neck veins thrumming, his supporters call Mrs Clinton “evil”, and a “killer”.

Yet the antipathy to Mrs Clinton is not merely a right-wing hate fantasy: she is also mistrusted within her party. Almost a third of Democrats said they disagreed with the FBI’s recent decision not to prosecute her—their presidential candidate—over her e-mail arrangements. It is hard to think of another politician whose public image is so at odds with the judgment of her peers.

For Mrs Clinton’s cheerleaders, the disparity is enough to prove she has been traduced. Yet politics is about winning over the public, as well as colleagues, and the ➤

fact that Mrs Clinton is much less good at this is partly her fault. For such a practised politician—she delivered her first major address, on graduating from Wellesley College, almost half a century ago—she is a dreadful public speaker. Her speeches are mostly wonkish and dull, workaday constructions of a politician who appears to view human progress as a series of nudging policy improvements. Mr Obama's vision is not dissimilar; but where the president elevates it with magical rhetoric, Mrs Clinton's performance is so hammy as to annoy. "She sucks the life out of a room," groans a member of her husband's separate (and in fact rival) adoring coterie.

This hurt her during her first presidential run, in 2008, when the public mood was less radically against the establishment politics that Mrs Clinton encapsulates almost to the point of parody. With trust in the federal government now at the lowest sustained level ever recorded, the damage was bound to be worse this time. Indeed, on the left, Mrs Clinton is especially unpopular among younger voters, who are most mistrustful of the government and most liable to demand radical change.

Hence their voluble support for Bernie Sanders, whose outsiderish credentials were confirmed by the fact that he had only recently joined the party whose nomination he sought. By pillorying Mrs Clinton as an apologist for a predatory elite—to which effort her lucrative past speechmaking on Wall Street provided ammunition—the Vermont senator assisted in her vilification. Over the course of the primaries, her favourability ratings worsened especially among millennials; 60% voted for Mr Obama in 2012, but by the time Mr Sanders threw in the towel, only 31% had a positive view of Mrs Clinton.

This was not only true of millennial men but also of women; the latter have proved largely unmoved by the prospect of America's first woman president. Older women, who backed Mrs Clinton in the

primaries by big margins, are often enraged by this. Madeleine Albright, a previous secretary of state, warned of a "special place in hell" for women who do not support other women. Yet it seems younger women do not see the logic of this, perhaps because they are less likely to have experienced maternity leave and gender-related pay disparities, two areas where women are most likely to report sexism.

In short, it is also hard to think of a politician less suited than Mrs Clinton to combating America's rock-throwing mood. But as an explanation for the strength of America's antipathy to her, this is inadequate—not least because she was until recently one of America's most popular figures. When she left the State Department, in 2013, 65% of Americans had a favourable view of her. Why do almost as many now feel the reverse?

Hill-Billy elegy

Two bits of context are important. First, Mrs Clinton has been here before. Almost from the moment she came to national attention, in 1991 during her husband's first presidential campaign, people took against her. "Like horse-racing, Hillary-hatting has become one of those national pastimes which unite the elite and lumpen," read a profile of the by-then beleaguered First Lady in the *New Yorker* in 1996. The second bit of background is that no one quite knew why.

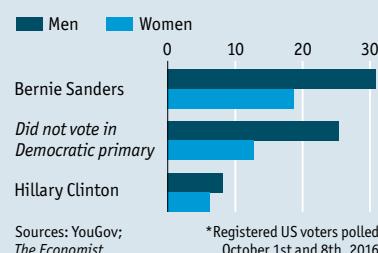
That Mrs Clinton kept getting mired in scandals—including, by 1996, an alleged conflict of interest over a rotten property investment the Clintons had made in Arkansas—plainly didn't help. They left an impression of her that was often unflattering. She came across as secretive and perhaps not quite punctilious in her observance of the law. There were suggestions she had overcharged clients of her legal practice (though she broke no law). But the most serious allegations, including several pursued by Kenneth Starr, the independent counsel who uncovered Mr Clinton's dallying with Monica Lewinsky, were dismissed as unproven or baseless.

A better characterisation of the antipathy to Mrs Clinton, which doubts about her probity reflected, was a vaguer sense that there was something inappropriate about her. This dogged her in Arkansas, where she was considered too independent-minded to be the First Lady of a southern state. It was unfair; even her reluctance to take her husband's name was controversial. Yet sympathisers struggled with the way the personal and professional seemed to overlap with Mrs Clinton.

The wellspring of that concern was the Clintons' marriage. To their detractors, it has always seemed a cold-hearted professional agreement, mainly to the advantage of Mrs Clinton. Yet those who saw her as cynically piggybacking on her husband's

Berned

Mistrust of Hillary Clinton among likely Clinton voters*, by primary vote and sex, % of total



Sources: YouGov; The Economist

*Registered US voters polled October 1st and 8th, 2016

success underrated her accomplishments; by her mid-20s, she was a Yale legal scholar and social activist of national repute; her speech at Wellesley had been widely covered in the press. Moreover, the Clintons were always upfront about their collaboration; Mr Clinton promised a "two for the price of one" presidency. And if that could help explain why Mrs Clinton never forsook her adulterous husband, something her critics also object to, there have been stranger marriages.

Even now—though it is reported Mr Clinton's philandering never ended—friends of the couple convincingly describe their mutual affection. "They're often holding hands," says an aide to Mrs Clinton. Yet if their partnership was deeply rooted, that didn't mean America had to like it. Indeed, there were reasons not to.

During her husband's first presidential run, Mrs Clinton was allegedly involved in trashing the reputations of women who had claimed to have had affairs with him. It was the sort of allegation that might be forgiven in a jealous wife, or in a professional campaign manager. But in a woman who claimed to believe her husband's protestations of innocence, and an avowed feminist, it seemed obnoxious.

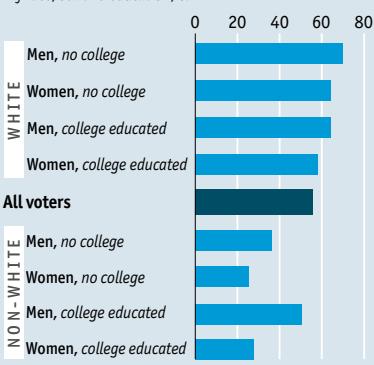
As the most powerful First Lady there had ever been—with an office in the West Wing and responsibility for reforming a health-care system that represented 15% of the economy—she faced stiffer attacks. Again, these were often exaggerated responses to errors for which she was only partly to blame. "Hillarycare" was too complicated and pursued too secretly. But though the unelected Mrs Clinton was partly to blame, so was her husband. Yet it was she who got it in the neck. At a speech she gave for the reform in Seattle, protesters waved "Heil Hillary" placards and invited her to "Fly yo' broom".

Both Clintons were flawed. Yet the ferocity of such barrages reflected something more: the deep fault-lines the couple were straddling. The first baby-boomer president and his pushy wife represented a cultural shift that much of America feared. "She was not only a baby-boomer but a strong woman, which was felt by some to be a threat," says Robert Reich, labour sec-

Trust busting

Respondents replying 'no' to the question *Do you think Hillary Clinton is honest*?*

By race, sex and education, %



Sources: YouGov; The Economist

*Registered US voters polled October 1st-3rd and 7th-8th, 2016

►
retary in Mr Clinton's administration. The obvious inference, that Mrs Clinton's unpopularity was fuelled by sexism, has always annoyed her critics almost as much as she has. But it is otherwise hard to explain the gap between the measured criticism Mrs Clinton's behaviour has sometimes invited and the unbridled loathing that has shown up in its place.

It was also apparent in the fact that Mrs Clinton's standing improved after the revelation of her husband's canoodling with Ms Lewinsky. Recast as a wronged woman, a less threatening female archetype, she seemed more likeable. Moreover, the criticisms most often levelled at Mrs Clinton are plainly sexist. She is said to be "shrill", "ambitious" and, in the gutter where Mr Trump fills his opposition files, deviant.

Whenever she has sought power, including in her two Senate and first presidential campaigns, such criticisms have been aired, and in the latter case her ratings plunged. That she was in for another pounding this time was predictable—yet the pitch of loathing is unprecedented.

The press had a hand in that. An analysis by researchers at Harvard's Kennedy School of eight mainstream outlets, including CBS, the New York Times and the Wall Street Journal, found they were more critical of Mrs Clinton than any other Republican or Democratic candidate. In the first six months of last year, she was the subject of three negative statements for every positive one; Mr Trump received two accolades for every carp. "Whereas media coverage helped build up Trump," the researchers concluded, "It helped tear down Clinton."

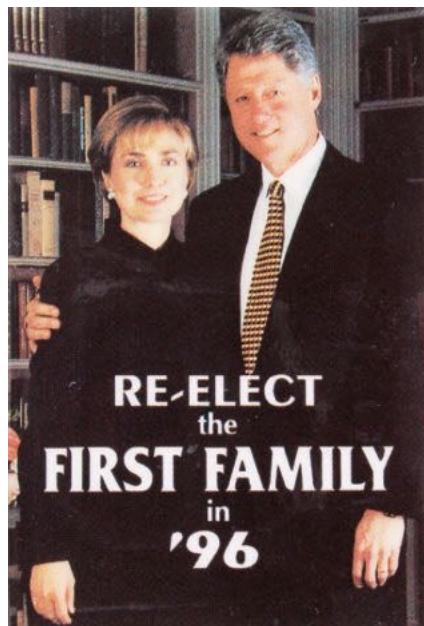
An obvious explanation is that Mrs Clinton's strengths, including the most detailed platform of any candidate, do not make interesting news. Compared with the surprising enthusiasm for Mr Sanders, they were therefore hardly covered. (Maybe that was a good thing; the Harvard researchers found Mrs Clinton was the only candidate whose platform received net negative coverage.)

And, as so often, she was also quickly enshrouded by scandals. These concern her alleged culpability for the deaths of four Americans in Benghazi in 2012; her lucrative speechmaking; the governance arrangements at the Clintons' foundation; and her private e-mail server, which was revealed in March 2015, shortly before she announced her run. Within weeks, Mrs Clinton the super-qualified front-runner had been recast as a scandal-dogged fading star. In the first year of her campaign, her net favourability fell by 20 points.

Also characteristically, Mrs Clinton was partly to blame. However reasonably she must fear harassment, her e-mail arrangements and protracted efforts to deny there was anything wrong with them warrant criticism. Or as Joe Lieberman, a former Democratic senator and vice-presidential

candidate, puts it: "The Clintons have been through a lot, they've had a lot of people searching through their garbage, but even so..." All the same, the weakness of her candidacy and the seriousness of her alleged offences have been exaggerated.

The predominant journalistic take on Mrs Clinton's primary campaign was that she risked losing to a wacky socialist no-hoper. In fact, she crushed Mr Sanders so utterly—by almost 4m votes, in the end—he clearly never stood a chance. Coverage of the scandals has been even more misleading. On Benghazi, which bothers Mr Trump's supporters especially (at his rallies, people reel off lists of witnesses they say Mrs Clinton has had killed) seven official investigations have shown she has no case to answer. Her speeches and activities at the foundation have also been exaggerated; both were politically fatheaded but,



Then do it again 20 years later

on the evidence available, not corrupt.

Because she was culpable over her "damn e-mails", in Mr Sanders's phrase, it is a more complicated case. Yet the prevailing view of the scandal, promulgated by the media and Mr Trump, that her misdeeds were serious enough to warrant an FBI indictment, always looked fallacious, and so it proved. A 250-page FBI report into its investigation into the affair, describes Mrs Clinton inheriting an institution with shambolic communication procedures, which she and her too-pliant aides perpetuated. It suggests her e-mail arrangement was motivated chiefly, as she maintained, by her desire to send private and personal e-mails from a single device, her BlackBerry. That was partly because Mrs Clinton is so technophobic she does not know how to use a desktop computer. It is also reasonable to assume the arrangement was in-

tended to give her maximum privacy. Either way, it was permitted.

The problem was that 193 e-mails containing classified information were exposed to Mrs Clinton's private server, which was not permitted. Yet the FBI, predictably, concluded Mrs Clinton's offence was not premeditated, a usual condition for a prosecution in such cases. In the annals of political misdeeds, future historians will not pause on Mrs Clinton's e-mails long. But they will marvel at how an exaggerated belief in her malfeasance almost created the conditions for Mr Trump to seize the White House.

What, in the end, is fuelling that belief? Mrs Clinton's political failings and the insurgent mood are plainly contributing. Yet, even if you are inclined to judge Mrs Clinton harshly, it is hard not to conclude that latent sexism is a bigger reason for her struggles. With his feel for America's worst instincts, Mr Trump sought to arouse a misogynist repulse to Mrs Clinton from the start. When she left a debate stage during the primaries to use the lavatory, he called it "disgusting". A tweet reading "If Hillary can't satisfy her husband what makes her think she can satisfy America?" was retweeted from his Twitter account (naturally, he said he knew nothing about it).

He now suggests his opponent and former wedding-guest ("a terrific woman," he used to call her) is guilty of murder and adultery. His supporters wear t-shirts reading "Trump that bitch" and "Hillary sucks, but not like Monica". More than half of white men, the engine-room of Hillary hatred, say they have a "very unfavourable" view of her—20 percentage points more than said the same of Mr Obama, whom they did not care for, in 2012.

They are responsible for the pitch of Hillary-hatred in this election. It always seemed likely that women would, in the end, rally against that assault. And so, belatedly, they have, with a wave of women voters now breaking for Mrs Clinton. She leads among women by 20 points, while Mr Trump leads with men by seven. If that gender gap holds, it would be the biggest ever. According to simulations by Nate Silver, a data guru, if only women voted, Mrs Clinton would win with 458 electoral college votes to Mr Trump's 80. If only men voted, he would win.

This indicates the vast and countervailing social pressures, towards and against change, colliding in this election. Mrs Clinton, who has never felt able to protest against the chauvinism she has encountered, must feel vindicated, in a sense. But she is lucky, too. In Mr Sanders and Mr Trump, she has faced two opponents who could scarcely have been better designed to exaggerate her weaknesses and denigrate her strengths. Yet they were also, perhaps, the only plausible opponents that Mrs Clinton could actually beat. ■



The third debate

Final insult

WASHINGTON, DC

Donald Trump suggests the election will be rigged

TOWARDS the end of the third and final presidential debate, in Las Vegas on October 19th, Donald Trump was asked to confirm that he would accept the verdict of American voters on November 8th. "I'll tell you at the time, I'll keep you in suspense," he replied. Mr Trump had in fact been rehearsing this line over the previous week. Trailing his Democratic rival, Hillary Clinton, by six percentage points (on average), he has repeatedly suggested the election will be rigged. A startlingly large portion of his supporters appear to agree; in a recent poll, 73% of Republicans say the election could be "stolen". But it was still amazing to hear Mr Trump stoke that baseless fear—and whatever small but not insignificant risk of post-election violence is attached to it—at the final set-piece occasion of this wretched campaign.

He had perhaps not even planned to air this latest conspiracy theory, which his running-mate, Governor Mike Pence of Indiana, has been quick to disavow. Because for most of the debate Mr Trump was restrained. He did not repeat his promise, made in the second debate, to imprison Mrs Clinton; he did not appear to boast of paying no income tax, as he had in the first. He spoke softly and, despite a few tics (his immigration policy, Mr Trump explained, was aimed at ridding America of "some bad hombres") he appeared to be trying to articulate his positions: for example, on the sanctity of the Second Amendment, the disasters of recent American policy in the Middle East and the hurt inflicted on some communities by globalisation. He only



The campaigns

Heard on the trail

Protocols of the Elders of Palm Beach

"Hillary Clinton meets in secret with international banks to plot the destruction of US sovereignty in order to enrich these global financial powers."

The Republican nominee borrows from history.

American Beauty (1)

"Look at her. Look at her words. You tell me what you think. I don't think so."

Donald Trump suggests that a reporter for People magazine was not attractive enough for him to pursue.

American Beauty (2)

"Yeah, I'm gonna go after her. Believe me, she would not be my first choice."

Another woman who claimed Mr Trump interfered with her on a plane also isn't up to his standards.

American Beauty (3)

"[Hillary Clinton] walks in front of me...and when she walked in front of me, believe me, I wasn't impressed."

The Democratic nominee is safe from Mr Trump's attentions.

Vive la revolution

"It is pitchfork and torches time in America!"

Milwaukee County sheriff and Trump supporter, David Clarke, talks bold at a Trump rally.

plugged his hotel once.

Ably moderated by Chris Wallace, a Fox News anchor, this debate was the most serious examination of the stark choice the nominees are offering Americans. Plump for Mrs Clinton on November 8th and they will have a continuation of Barack Obama's presidency; albeit, she stressed, with a couple of differences. She will not rethink her rejection of the Trans-Pacific Partnership deal and she would try to pass immigration reform, including a path to citizenship for the undocumented, within 100 days of taking office. Or they can plump for Mr Trump and have a more conservative Supreme Court bench, more border security and an aggressively transactional trade and foreign policy that would transform American power.

Mr Trump's Republican advisers always wanted him to debate in this way, to woo the many conservatives who want reassurance of his seriousness. Had he done so earlier, he would be doing better. But this debate also underlined how difficult

A complex Napoleon

"There's a big Trump and a little Trump. The little Trump is frankly pathetic." *Newt Gingrich, stalwart Trump supporter. Fox Business*

Warm bodies

"Dead people generally vote for Democrats rather than Republicans."

Rudy Giuliani, former mayor of New York City, talks alleged voter fraud. CNN

Cold comfort

"I would like to reassure everyone, including our US partners and friends—we do not intend to influence the US election campaign."

Vladimir Putin reassures Americans. Reuters

Liberty and death

"We're going to have a revolution and take them out of office if that's what it takes. There's going to be a lot of bloodshed. But that's what it's going to take..."

A Trump fan in Ohio is ready to rebel. Boston Globe

Couch warrior

"The average American is very lazy. A rally is a very easy task, a revolution is not."

A Trump supporter in Green Bay, Wisconsin dismisses fears of post-election violence. NPR

restraint is for Mr Trump. Because the longer he debates issues with Mrs Clinton, the more embarrassingly apparent it becomes that she knows what she is talking about and he mostly does not—and the more uncomfortable that makes him. He does not wear his inexperience lightly, as George W. Bush did in his sparring with the professorial Al Gore in 2000. And Mrs Clinton, who put in her best debate performance, is expert at needling him.

In the end, sure enough, he fell apart. Castigated by Mrs Clinton, in response to his querying of the election's legitimacy and for his lifelong habit of crying foul when he loses, he made himself look ridiculous. Mrs Clinton gave as an example Mr Trump's past suggestion that the Emmy awards were rigged because a television show of his had not won; "Should have gotten it," he growled. She later mused on her plans for welfare reform. "Such a nasty woman", Mr Trump blurted into his microphone. He did not sound threatening so much as absurd. ■

Election brief: Infrastructure

A view from the bridge

WASHINGTON, DC

It will take more than just money to get America moving

2016 IN SEPTEMBER the authorities in St Petersburg, on the west coast of Florida, released about 150m gallons of raw and partially treated sewage into Tampa Bay, the natural harbour on which the city sits. Flooding related to Hurricane Hermine had overwhelmed the city's ageing wastewater system—the third such incident in 13 months. According to a whistle-blower, consultants warned the city in 2014 that closing one of its sewage plants could lead to such a catastrophe. But it did it anyway.

Both candidates for president agree that America must spend more on its infrastructure which, though good, is deteriorating. It attracts a score of 5.9, on a scale of 1-7, from the World Economic Forum, down from 6.1 in 2007. (Over the same period, other rich countries saw their scores grow by an average of 0.3.) Government data show that in 2014 some 32% of America's roads were rated "poor" or worse for bumpiness, up from 16% in 2005. The average annual delay faced by commuters has increased by 62% since 1990.

The decline is the inevitable result of falling infrastructure investment (see chart). It tumbled after the recession as states and local governments, who provide nearly two-thirds of the money, scrambled to balance their budgets. The federal government's recession-fighting stimulus package mitigated this only slightly. Between 2009 and 2014 just \$55 billion of \$828 billion in stimulus spending flowed to water and transport projects. From 2013 fiscal austerity made infrastructure funds still scarcer. In 2015 Congress scrimped together enough cash to keep the highway trust fund, which provides most of the federal funding for transport, in the black until 2020. But more money is needed to stop the decay.

Hillary Clinton promises an extra \$275 billion over five years, which should return infrastructure investment to close to its pre-recession level. Her shopping list is lengthy. It includes both sober promises, like fixing potholes, and fanciful ideas, such as creating a "world-leading" railway network (taken at its word, this would require sending Japanese style bullet-trains across the country). This first \$275 billion would come from mostly unspecified changes to the corporate tax.

Mrs Clinton would also continue Barack Obama's quest to establish a national

infrastructure bank, capitalised with \$25 billion from the Treasury. The bank would borrow a further \$225 billion, either from investors, or from Uncle Sam (which might be cheaper). In any case, the bank would funnel its cash to infrastructure projects in the form of loans and loan guarantees (it would support only projects which can make a return, like toll bridges).

Donald Trump—as usual—has less of substance to say. He laments the state of the nation's bridges and airports and promises to repair them. He also says he will deliver "gleaming new infrastructure". Asked in August how much this would cost, he replied, ostentatiously, that he would "at least double" Mrs Clinton's



numbers. To achieve this, he would start "a fund" and—wait for it—make a "phenomenal" deal with investors to raise capital.

Loose talk about loose purse-strings will make sceptics shiver. In the past, federal funds have flowed easily to boondoggles because politics, rather than thoughtful analysis, has directed the flow of money. For example, stimulus spending on transport was twice as generous, on a per-person basis, to sparsely populated areas than to densely populated ones, according to Edward Glaeser of Harvard University. It costs more to build in crowded cities than on empty fields, but low-density areas are, he notes, "remarkably well-endowed with senators per capita".

Useless projects excel at soaking up federal cash. Alaska recently abandoned a plan to build an infamous bridge connecting an island with just 50 residents to the mainland. But it did use federal cash to build a road leading up to where the "bridge to nowhere" would have stood.

West Virginia has almost the opposite problem. It has been building a highway through the Appalachian mountains for over a decade. But the absence of a connecting road in neighbouring Virginia means the project lacks a clear purpose.

Any new infrastructure programme must seek to avoid such profligacy. The priority should be unglamorous maintenance work, which has been neglected even as wasteful new projects have gone ahead. The Federal Highway Administration says that from 2011 until 2030 annual investment in roads must average \$73 billion-78 billion, in 2010 dollars, just to restore existing roads to good condition (for comparison, such "rehabilitation" spending totalled only \$60 billion in 2010). Maintenance could consume a big chunk of Mrs Clinton's promised direct spending.

An infrastructure bank could screen new projects for value-for-money. Mrs Clinton promises hers would be independent of government and would choose what to fund "based on merit, not politics". The requirement that projects produce revenue to repay the bank would introduce market discipline to the process, especially if private money were involved (though some wonder just how many profitable infrastructure opportunities exist).

Regulation might slow the diggers. A plethora of environmental, historical and other rules often restrict building. Many stimulus projects, far from being "shovel-ready", took more than a year to get going because of local red tape. In May Larry Summers, a former treasury secretary and a vocal cheerleader for more infrastructure investment, complained in an article in the *Boston Globe* that regulation had delayed a project to repair a bridge near his office at Harvard University. The bridge took only 11 months to build in 1912, but the refurbishment, which began in 2012, is yet to be completed. When a contractor discovered it had to move a water pipe, the associated paperwork delayed work by a year. Another hold-up was a requirement, imposed by the Massachusetts Historical Commission, that the bridge had to have special bricks.

Other barmy rules abound. The Davis-Bacon Act of 1931 requires workers on federal projects to be paid the "prevailing wage"—calculated by bureaucrats—in the local area. Law prevents the federal government from charging tolls on existing interstate highways, limiting a potential source of new funds (Mr Obama has tried, unsuccessfully, to change this).

In recent years it has often taken disaster to spur investment. St Petersburg, Florida is now rushing to repair its leaky pipes; New Jersey at last raised its petrol tax to fund new transport spending after a fatal train crash in September. It is good that both candidates recognise the need for improvement. But that will require more than simply opening the chequebook. ■

Lexington | How to shoot a man in Reno

Nevada's Senate race features two decent candidates whose reputations are being trashed



ASSUMING that her opponent fails to recover, Hillary Clinton can reach the White House even without Nevada, which polls suggest is in her grasp. Yet Nevada could hardly matter more to her. To achieve much as president Mrs Clinton will need a Democratic majority in the Senate, and her party's path to retaking the Senate runs through Nevada, one of a few states that will decide the majority. And as in other swing states, its Senate race is on a knife-edge, thanks to a Republican candidate running ahead of Donald Trump.

Nevada's contest carries a special charge because Democrats are defending the seat of their Senate leader, Harry Reid, a whisper-voiced partisan who is retiring, and who hand-picked his successor, Catherine Cortez Masto. The two main candidates are not obviously nasty people. The granddaughter of a Mexican immigrant, Ms Cortez Masto is a cautious, hardworking former state attorney-general, who was known for crossing party lines and would be the first Latina in the Senate. Her Republican opponent, Joe Heck, is a cautious, hardworking congressman, doctor and brigadier-general in the Army Reserve: "When America is Fighting for Its Future...Send a Soldier" proclaims the Heck campaign, touting images of their man wielding a stethoscope and looking masterful in camouflage fatigues.

On paper, demographic changes favour the Democrat (Mr Obama won Nevada twice). The state has been transformed from a cows-cactus-and-casinos backwater into the third-most-urbanised state in the country. More than 28% of its residents are now Hispanic, and they are strikingly young. Add a fast-growing Asian community and sizeable black population, and whites of European descent will lose majority status by the decade's end, a seismic event that will occur in America as a whole by mid-century. For a Democratic Party increasingly reliant on urban, non-white and young voters, Nevada looks a cheering vision of the future.

Strength on paper can be deceiving, though. Strip out non-citizens and minors, and fewer than half of Nevada's Hispanics are eligible to vote. Moreover, Nevada's non-whites are on average younger than their white neighbours, and less educated—both of which predict low turnout. And when the electorate is much smaller than usual, as happened in the mid-terms of 2014, Democrats get thumped: high conservative turnout in "the rurals", as

the state's vast hinterland is known, and in such swing districts as Washoe County around the northern city of Reno, swamps the Reid machine that mobilises casino workers and union members in Las Vegas. In 2016, there are other reasons why Mr Trump's toxicity is not causing a landslide for Democrats in Nevada.

Compared with battleground states such as Colorado, Pennsylvania or Virginia, Nevada has fewer of the suburban college graduates who have abandoned Mr Trump in such numbers, notes David Damore of the University of Nevada, Las Vegas. As for youth turnout, a Democratic event this week at the University of Nevada, Reno, watched by Lexington drew just six students, though it featured free pizza and a pep-talk by a visiting senator, Jeff Merkley of Oregon. Many classmates are uninspired by either Mrs Clinton or Mr Trump, sighed Oscar Carballo, an undergraduate who did show up: "Honestly, I think turnout will be low."

Republicans have their own woes. Dr Heck broke with Mr Trump earlier this month, after recordings emerged of the nominee boasting about groping women. Citing his "military code of honour" and his experiences treating women victims of sexual assault, the doctor has called for Mr Trump to quit the race. At the Washoe County Republican Party in Reno, the chairman, Roger Edwards, stopped assembling Trump lawn signs to report that members are "pissed off" at Dr Heck, who is "kind of a RINO"—using the acronym for Republicans In Name Only, a jibe hurled at politicians who occasionally compromise to secure larger goals. Mr Edwards hopes Republicans will think of the Senate majority and back Dr Heck anyway: "We have to hold our nose and pull the handle." Yet at a Democratic office a few miles away, Dr Heck's conversion earned him no credit with Mr Reid. Leaning on a silver-topped cane, the leader of the Senate's Democratic minority murmured that Dr Heck is "a Trumpite who has been voting with Tea Party folks to close the government".

Don't ever play with guns

Both parties should ponder the effects of an estimated \$80m spent by groups from out of state on Nevada's Senate race, dwarfing spending by the candidates. Mr Damore argues that, with so many negative TV ads aired by outside groups, "the candidates don't have control of the message"—leaving Ms Cortez Masto and Dr Heck to emphasise their life stories, hoping some light pierces the murk. Spending by outside groups tends to nationalise races, too, forcing every candidate into familiar partisan templates. Tom Mannigel, a Republican volunteer in Reno, notes with approval how TV ads have portrayed Ms Cortez Masto as corrupt and greedy, "very similar to the way they're painting Hillary".

Much outside spending comes from a network of donors led by two conservative industrialists and brothers, Charles and David Koch. On a crisp afternoon 22 days before the election, paid canvassers from the Libre Initiative, a Koch-supported group that promotes free markets and limited government to Hispanics, knocked on doors in a Reno suburb. Ostensibly conducting a survey, the canvassers read questions from digital tablets such as: "Democrat Catherine Cortez Masto has proven to put special interests ahead of job growth and our children's future. This November 8th, will you be sending a message by voting against Catherine Cortez Masto for US Senate?" After several such leading questions, a sleepy Latino shift-worker in pyjamas agreed he was less likely to back her. On the left, union-funded ads have distorted Dr Heck's views on pensions and other issues. In 2016 the poison starts at the national level and trickles down. ■



Canada's climate policy

Let the haggling begin

OTTAWA

With the announcement of a national carbon price, Justin Trudeau opens a new phase of his government

“THIS is betrayal,” thundered Saskatchewan’s long-serving premier, Brad Wall. His grievance: the decision this month by Canada’s prime minister, Justin Trudeau, to set a minimum price for carbon emissions that all provinces would have to adhere to. Since taking office nearly a year ago, Mr Trudeau and his ministers have spent much of their time consulting the provinces (and ordinary Canadians) on such issues as judicial reform and defence. His carbon-price announcement marks a transition from talking to acting, and a new contentious phase in relations between the federal government and the ten provinces. Canada’s grand political bazaar, in which the prime minister and the premiers strike the bargains that determine how the country will be governed, is again open for business.

Despite Mr Wall’s profession of shock, the carbon-price policy is no surprise. Mr Trudeau has made it plain that, unlike his Conservative predecessor, Stephen Harper, he takes the threat of climate change seriously. One of his first acts in office was to agree last December to sign the Paris climate accord, under which Canada is to reduce its emissions of greenhouse gases by 30% below the levels of 2005 (see chart). The deadline is 2030. Although Canada emits just 2% of the world’s greenhouse gases, it is one of the world’s biggest emitters per person. Without carbon pricing, it will not keep its climate promises.

During Mr Harper’s laissez-faire reign,

some provinces came up with their own schemes. British Columbia introduced a revenue-neutral carbon tax in 2008; it is now C\$30 (\$23) a tonne. Quebec linked its cap-and-trade system, which issues tradable permits to emit greenhouse gases up to a certain level, to that of California. Ontario plans to join. Energy-producing Alberta levied a small tax on large emitters. It plans a C\$20-a-tonne tax on emissions from fuel. Some 80% of Canada’s population is covered by a carbon-pricing scheme of some kind.

Now Mr Trudeau wants a national standard, in part to discourage firms from migrating to provinces, like Saskatchewan, with no carbon price, or with very low ones. The national price will start at C\$10 a tonne in 2018 and will rise by C\$10 a year,

reaching C\$50 by 2022. Then the system will be reviewed. Mr Trudeau’s plan is not ambitious enough to meet Canada’s emissions-reduction target; some analysts think the price should be C\$200. But it is a start. Provinces will be free to choose the system that best suits local industry. Those that opt for cap-and-trade schemes will have to meet or exceed Canada’s target of cutting emissions by 30%. Provinces will be allowed to keep the money they raise.

That will not mollify them. Energy-producing provinces, such as Alberta, Saskatchewan and Newfoundland & Labrador, worry about the effect of carbon prices on the oil industry and on export-dependent livelihoods, such as lentil farming. They are in the second year of a recession caused by a slump in oil prices. Citizens in those provinces are hostile, although 63% of Canadians support Mr Trudeau’s climate policy, according to a new poll. On October 3rd, the day he announced it, the environment ministers of Saskatchewan, Nova Scotia and Newfoundland & Labrador walked out of a meeting with the federal minister, Catherine McKenna. “Now is not the time for that levy,” Mr Wall says.

Most premiers sense more opportunity than threat in Mr Trudeau’s plan, seeing it as a chance to extract goodies from the federal government. Friendly collaboration is finished, says Tracy Snoddon of the C.D. Howe Institute, a think-tank. Now “a period of hard bargaining, posturing and demands for compensation and concessions begins.” Rachel Notley, Alberta’s premier, gave Mr Trudeau a taste of what is in store when she huffed that she would not support a national carbon price until she saw progress on plans for a pipeline to carry her province’s crude oil to one of Canada’s coasts. Quebec wants the federal government to give \$1 billion to Bombardier, a struggling aircraft-maker. Other provinces have their own wish-lists.

Also in this section

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► The biggest prize, universally coveted, is more federal money for health care, the largest item in provinces' budgets. To help pay for it, the federal government will this year give them C\$36 billion, its biggest transfer. This has been growing by 6% a year since 2004. Mr Harper's government decided that from 2017 the rate of growth would fall to that of nominal GDP, which is projected to average 3.8% over the next few years. (There is a floor of 3%).

That is what really worries the provinces. Seven will have budget deficits this year. The rising cost of caring for an ageing

population will add to the pressure. A spate of elections will sharpen some premiers' hunger for popularity-boosting cash. British Columbia votes next May; four other provinces will do so in 2018.

The federal government is cautious. Jane Philpott, the health minister, notes that overall spending on health care has recently risen at less than half the rate of federal transfers. That suggests that provinces have been taking advantage of federal generosity to spend money on other things. She says that the only extra money available is C\$3 billion promised over four

years for home care by Mr Trudeau's Liberal Party during the election campaign.

During his decade-long tenure, Mr Harper avoided meeting premiers as a group, knowing they would press him for money. Mr Trudeau is a more collegial sort. He will parley with the provincial chiefs on December 8th and 9th, knowing what to expect. His agenda will be to push forward his plan to make Canada a more responsible consumer of energy. The premiers will try to change the subject. In the end, some sort of bargain will be struck. It's the Canadian way. ■

Bello | A model Latin American

The concrete message of an abstract artist

THIS has been a good year for Joaquín Torres-García, a Uruguayan artist who died in 1949 but whose reputation continues to wax. Last winter the Museum of Modern Art (MoMA) in New York staged a panoramic exhibition of his work; after summering in Madrid, the exhibition opened this month at the Picasso Museum in Malaga. Last November one of his large "constructivist" panels, as he called them, sold for \$2.1m at auction, a record price for his work. A more intimate exhibition at the Guillermo de Osma gallery in Madrid showcases both his sketches and his craftsmanship as a maker of wooden sculpture and toys.

This interest in Torres-García shows that an artist who sometimes seemed behind his times was, in many ways, ahead of them. He was a bridge between Latin America and the diverse vanguards of the School of Paris. More important, he gave birth to a radical tradition of abstract and geometric art in South America. To outsiders, Latin American art means the Mexican muralists, Frida Kahlo and "indigenism" (the highlighting of pre-Columbian roots). But the abstract tradition is coming into its own. This week Patricia Phelps de Cisneros, a collector, donated to MoMA 102 works of geometric abstraction from the region (see page 71).

Torres-García was an unlikely artistic revolutionary, an "Arcadian Modern" as the MoMA exhibition puts it. Yet he spent his long life in an ultimately successful search for an artistic language that offered answers to the fundamental question that faces all Latin American artists—who are we? Europeans or Americans, colonisers, indigenous or *mestizos*?

The child of a Catalan émigré merchant and a Uruguayan mother, Torres-García moved with his family to Barcelona in 1892, when he was 18. There he was drawn to classical Greek art and a conser-

vative, Catholic artistic circle, linked to Catalan nationalism. He worked with Antoni Gaudí, the architect, on stained-glass windows for the cathedral at Palma de Mallorca. Such was his success as a painter that he was awarded a commission to decorate a chapel at the Palace of the Generalitat, today the seat of the Catalan government. But his bold symbolist frescoes offended traditionalists and were later covered up.

That rebuff and two years in New York propelled Torres-García to an art of the present. After dabbling in futurism and Cubism in vibrant street scenes, and moving to Paris, he arrived in the late 1920s at his artistic destination: what he called "architectural art" or "constructive universalism". On a geometric grid he assembled pared-down symbolic pictograms. There is an esoteric quality to these recurring stylised objects: man, woman, fish, anchor, clock, bottle and so on. They drew on the orderly shelves of his father's shop in Montevideo and his childhood memories of its great

port. His constructivist panels were sometimes painted in black and white, or in the gently glowing primary colours of stained glass; sometimes they were scored onto wood.

In Paris Torres-García became friends with Piet Mondrian and Theo van Doesburg, two Dutch abstract painters. But he rejected their dogmatic divide between abstraction and figuration; his stance is taken by many artists today. Rather, he counterposed abstraction to what he called "the concrete", while marrying the modern to the primitive. He sought a universal language, deep in the unconscious, of visual symbols. While indigenism imprisoned Latin American art in folklore, Torres-García incorporated pre-Columbian imagery, from Inca walls and Nazca ceramics, into that universal language.

In Paris he was at last able to make a living from painting. Then the Great Depression struck. In 1934, aged 60, Torres-García set out for Uruguay, more than 40 years after he had left it. There, in a tall house just off the main square in the colonial centre of Montevideo that is today his museum, he founded the School of the South to teach constructive universalism to a younger generation of artists. It was perhaps the most successful venture of his chequered life. Large posthumous exhibitions of his late work in Brazil in the 1950s testified to that.

Torres-García was the most original and thoughtful artist Latin America has produced. His claiming of its indigenous heritage as part of a universal human experience is a welcome antidote to those in the region who would turn their backs on the world. In a continent given to fragmentation, so is his insistence on synthesis and unity. In these senses, Torres-García, who became a cantankerous old man in a straggling white beard and a long overcoat, was a model Latin American.



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Clowns in Cuba

The red-nosed gold rush

HAVANA

There's money to be made wearing floppy shoes

ONE recent Saturday afternoon three performers, dressed in clownish finery, clambered out of a rusty 1950s pickup truck in a suburb of Havana and spent the next hour cavorting, breakdancing and sa-shaying for the amusement of a dozen children. One of the troupe, Ángel Kike Díaz, a cartoon-voice star and stage puppeteer, is a Cuban celebrity. As a clown employed by the state, he makes a salary worth \$30 a month. A single children's birthday party will pay him nearly that much.

With inducements like that, clowning is a growth industry in Cuba. A timid economic liberalisation has created a small entrepreneurial class and attracted foreigners with money to spend on private displays of pranks and prafalls. It has also opened up the clowning profession. "Clowns", "party entertainers", and "party-service providers" are among the 181 jobs that may now be done by self-employed workers. At least 200 clowns romp around Havana at such events as *quinceañeras* (15th-birthday celebrations for girls), weddings and feasts honouring the saints of Santería, an Afro-Cuban religion.

Clowning is a Cuban vocation, brought by French and Spanish settlers in the 18th century and Americanised in the 20th (the Ringling Brothers and Barnum & Bailey circus visited in 1949). Fidel Castro shook up a largely hereditary profession by founding the National School of Circus in the 1970s, staffed largely by clowns trained in the Soviet Union. Its alumni are mostly on the payroll of the ministry of culture. Hard times came with the fall of the Soviet Union. Teachers went home; circuses closed. The school stopped training clowns in 2010. When the circuses eventually reopened, it was with fewer animals but a full complement of clowns. "It's easier to feed a clown than an animal," jokes one.

Informality in Latin America

Casual Mondays to Fridays

The high cost of joining the formal sector

MORE than half of all workers in Latin America are employed off the books in the informal economy. That share has barely fallen since 2003. Informal workers are excluded from safety-net programmes such as pension plans, unemployment insurance and some public-health services.

A report by the OECD, a club of mostly rich countries, shows one reason why workers remain in the shadows: the cost of formality is too high (see chart). A large share of employees—from at least 20% in Bolivia to at least 80% in Honduras—earn wages that are below their country's statutory minimum. Social-security contributions, if low-wage workers paid them, would consume much of their incomes. For the poorest tenth, contributions owed by both employers and employees would average three-quarters of their wages (if those workers paid the amount levied on formal employees earning the minimum wage). In five of

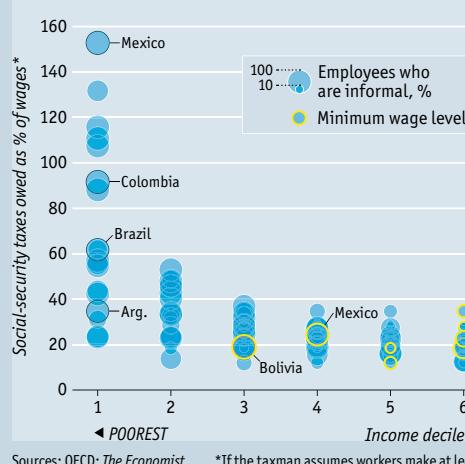
the 18 countries covered by the report, that share would be more than 100%.

Latin American tax burdens are not excessive by rich-world standards. For workers earning average wages in the formal sector, the tax take is less than 22%. Income taxes begin to bite only at the highest salaries. But for low-paid workers, especially those earning less than unrealistically high minimum wages, the cost of becoming formal is prohibitive.

Even workers who could afford to make social-security contributions are often reluctant to do so. Some doubt that state pension schemes will be solvent by the time they retire. Others are deterred by the poor quality of public health-care programmes. The OECD would like the state to subsidise social-security payments by people who earn the minimum wage or less. That might induce some to join the formal economy. But formality is unlikely to become the norm if the benefits that go with it continue to be so poor.

Priced out

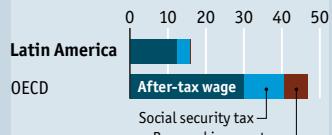
Latin American informal labour market and taxes 2013



Sources: OECD; The Economist

*If the taxman assumes workers make at least the minimum wage

Average labour cost in formal sector \$'000[†], 2013



†Adjusted for purchasing-power parity

Around half the moonlighting *payasos* are graduates of the national school. Among the self-taught are a doctor, a former priest and a postal worker. Clowns with proper credentials do not appreciate the competition. "The amateurs are like bad weeds," says one. Cuba does not make it easy for either sort to freelance. With rubber noses and floppy shoes in short supply at home, clowns buy them when they or friends go abroad. The regime restricts access to the internet, so clowns advertise their services on the *paquete*, a hard drive

packed with entertainment downloaded illegally and passed from house to house.

Stingy with freedom and consumer goods, the communist system provides plenty of subjects for comedy, though clowns must be cautious in exploiting them. One skirts the borders of what is permissible by satirising Cuba's police. "We are natural clowns," says a *payaso* who combs his hair into a spiky ponytail that resembles a Wi-Fi antenna. "When we open our fridges in the morning and see that they're empty, we laugh." ■



Iraq

Marching on Mosul

Iraq's second-largest city will be liberated from Islamic State. But at what cost, and with what result?

THE time of victory has come...today I declare the start of these victorious operations to free you from the violence and terrorism of Daesh [Islamic State]." With these words, broadcast at 2am on October 17th, Iraq's prime minister, Haider al-Abadi, announced the start of the long-awaited offensive to liberate Mosul, the country's second city. First captured by the jihadists in June 2014, it is the only big town in Iraq that they still hold.

This will be the most complex military operation in the country since the American invasion in 2003. The opening phase alone may take several weeks. It began with some 4,000 Kurdish Peshmerga forces advancing on three fronts from the east to within about eight miles (13km) of the city. With support from attack helicopters and air strikes by the American-led coalition, their initial aim was to take control of a number of is-held villages covering a 45-square-mile (115-square-km) area across the Nineveh plain. Iraqi forces pushing up from the south were joining them as the offensive met its first objective, but briefly stalled because of bad weather, pockets of is resistance (including suicide-bombers) and the need to clear large numbers of previously buried roadside bombs.

Overall, the advance is still on track. But it took the Iraqi army six hours of fierce combat on October 17th to chase is fighters from Ibrahim Khalil, a village 20 miles south of Mosul. Overpowered, the militants fled into the parched plains. But they

returned as night fell to attack the Iraqi forces with suicide bombs, mortars and heavy machine guns. "No reinforcements showed up so when they attacked we had to retreat from the five villages we captured on Tuesday. We ended up right back where we started," said Lieutenant-Colonel Mohammed Hadi. "We took back three today but we can't advance further towards Mosul until the others arrive."

It is too early to say how stiff a fight is will put up. It has had many months to prepare its positions—tunnels have even been dug in some of the outlying villages. It may take another week for Iraqi forces to reach the outskirts of the city, and another month to achieve a degree of control within it. Some commanders are even more cautious about the timetable.

Michael Knights of the Washington Institute, an American think-tank, describes a multi-phased operation, which began with the refurbishment of the Qayyarah air base, some 40 miles south of Mosul, after it was recaptured by the isf in early July. Qayyarah, which can now handle coalition cargo aircraft, is both the logistical base and the collecting point for Iraqi forces gathering for the attack. About 600 American military advisers (and special forces) arrived there a couple of weeks ago to train and prepare the Iraqis. In all, there appear to be some 25,000 Iraqi army and special-forces troops in place. These, says Mr Knights, have been drawn from across the country to form multi-ethnic, cross-sec-

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tarian units. Another 6,000 or so mainly Sunni tribal forces have been recruited from the surrounding area.

As well as the Kurdish Peshmerga, Shia popular-mobilisation forces, most of them backed by Iran, are keen to join the action. However, the aim is for them to secure areas to the west of Mosul. They will do this by stopping is fighters from fleeing into Syria, by helping take back the town of Tal Afar and by stopping Turkish-backed Kurds from entering Mosul. They seem to have accepted that they will not join in the fighting for the city. Their entry there certainly would not be welcomed by the city's mainly Sunni-Arab inhabitants, who know the militias' reputation for killing suspected "collaborators".

The plan for retaking Mosul has been adapted from a well-thumbed manual. The liberation of Fallujah, which took less than four weeks in June, provides a template. The opening phase of the battle is essentially an ever-tightening encirclement operation intended to cut off the is fighters ►



► inside the city from reinforcements or supplies and to seal off their escape routes west into Syria.

The second phase will see Iraqi forces meeting the enemy at an increasing number of points around the edges of the city. IS positions in Mosul are already being pounded by French and American artillery. Micro drones capable of transmitting images from inside buildings are telling the gunners exactly where to aim. Once the position of IS fighters is known, say American military advisers, they can be quickly picked off by artillery or by coalition aircraft stacked in the skies above Mosul.

The third phase of the operation will be led by Iraq's elite counter-terrorism units, who will enter the city at different points to kill those IS fighters remaining. The final phase will see the introduction of other Iraqi forces, including police, to help in mopping-up operations, defuse booby traps and begin the task of restoring governance to the traumatised inhabitants.

How smoothly things go will depend in large part on whether IS sees the need to go down fighting for propaganda purposes or whether it makes a tactical retreat to Syria, perhaps to conserve its strength for a last stand there. It may well decide to fight because retreat may not be possible. When fleeing IS convoys left Fallujah, they were an easy target for prowling coalition aircraft. Some strategists have argued for an escape corridor to be left open.

Given the impossibility of defending an area as big as Mosul, Mr Knights expects IS fighters to fall back to a couple of places where they can sell their lives most dearly. One is likely to be the government centre in the west of Mosul; the other is almost certain to be the narrow streets of the old city, where superior firepower is least effective and the danger to civilians is highest.

That the Iraqi government will retake Mosul is not in doubt. But much else remains uncertain. The battle could be over in a few weeks, or it could drag on for months. As IS control begins to slip, many of the 1m or more civilians thought to be in the city may try to escape. Preparations for a big exodus have been made, but confidence in them is not high.

In the slightly longer term, once the relief has worn off, much will depend on the confidence that Mosul's citizens have in Baghdad's willingness and ability to secure and rebuild their city. Strapped for cash by low oil prices and riven by sectarian divisions, the Iraqi government will need help from the international coalition. Sunni Arabs will want more of a voice within Iraq, and more power devolved from Baghdad. Lastly, even when IS has lost its territory in Iraq, it may still be able to wage guerrilla war. Unless the politics can be got right, the liberation of Mosul could mark the end of one horror and the beginning of something almost as bad. ■

Jordan

The uneasy crown

AMMAN

Discontent is growing at King Abdullah's increasingly autocratic rule

“**A** TRUE triumph of progress over regression,” claimed King Abdullah, boasting about Jordan's elections from the UN podium in New York on September 20th, the day his kingdom went to the polls. Many Jordanians thought otherwise. Despite a relentless public-information campaign and the participation of the pro-Islamist Muslim Brotherhood for the first time in nine years, turnout slumped to a dismal 37%, down from 56% at the election before. In parts of Amman, the capital, barely one in five of those eligible to vote bothered to cast a ballot.

The low turnout is a sign that many people saw the elections as a waste of time. The king swiftly reappointed the same unelected cabinet with only a few minor alterations, and since then has proceeded to push through a host of decrees. Wise but unpopular decisions to buy gas from Israel and to revise the school curriculum by removing troublesome Koranic verses were issued as decrees.

Ever since it was fashioned by Britain after the first world war, Jordan has served as a pro-Western outpost and a buffer keeping its petulant neighbours at bay. But as it transforms from empty deserts roamed by Bedouin into a populous Arab state, the kingdom shows signs of strain. Economically and politically it is struggling to make the transition, say critics; “plucky little Jordan” is acquiring some of the attributes of the authoritarian regimes that surround it

in all directions.

In the absence of a credible opposition, Jordanians are starting to look for less established ways to make their voices count. Across the kingdom, protesters have taken to the streets to denounce the gas deal and education reform, despite a heavy police presence. On October 9th riots erupted in Quwaismeh, a suburb of Amman, after a series of police raids there. And with the Brotherhood, Jordan's historically pro-royal Islamist movement, widely seen as compliant and divided, there are signs that the aggrieved are finding more extreme outlets. Islamic State flags have been spotted flying in Salt, an old trading town west of Amman.

The kingdom's tranquillity is threatened in other ways, too. Crime is climbing. At the end of September a well-known journalist, Nahid Hattar, was shot dead on the steps of Amman's courthouse before a hearing on blasphemy charges; the killer was an education-ministry official. In rural areas, where elections are fiercely contested as tribal shows of strength, the losers have blocked roads and clashed with police. “The ballot boxes were stolen,” says Hind al-Fayez, a candidate who accused the interior minister of corruption and then lost her bid for re-election. “They were carried away by thugs wearing masks before the eyes of the security forces.”

Ms Fayez has gone to court alleging that the vote was rigged, but even if the result is reversed she says she will not take her seat. “Street movements have more power than parliament,” she says. Other disillusioned politicians are also challenging the system. A former parliamentarian from Tafila, in southern Jordan, is trying once again to register a new party calling for a true constitutional monarchy. Marwan Muasher, a once loyal foreign minister, has launched a campaign for citizens' rights.

Jordan's Western benefactors play down the unrest. “Little flashpoints,” says a diplomat. But others wonder whether, after four years of successfully managing the turbulence of the Arab spring, the country is wobbling.

Economic hardship has accompanied the political. Growth has fallen to less than 2%. Public debt has leapt to 93% of GDP since the Arab spring. A fresh bout of tax and price increases on essentials like water and bread is in the offing, as part of a loan deal with the IMF. A huge refugee influx from Syria increases the battle for jobs and



Still plucky, but more nasty

► resources. Economic trouble in the rich Gulf states, particularly in Saudi Arabia, suggests worse could be coming. Aid, tourism, investment and remittances (the last alone worth 14% of GDP), are all sharply down. "The economy is based on foreign aid," says Samer Tawil, a former economy minister. "We cannot prosper without it."

Years of price rises and subsidy cuts have eroded the kingdom's once-comfortable middle class. Amman, where almost half of the country's 9m people live, is the Arab world's most expensive capital, but salaries are among the lowest. Cuts to education and health services feed discontent.

The spectre of a friendly monarch under pressure has long induced external patrons to stump up cash for Jordan. But for all its Western orientation, the kingdom remains deeply conservative. Fewer women go to work than in Saudi Arabia. Mr Hattar's killer might have been a lone wolf, but social media was full of support for him. Thousands of Jordanians are waging jihad abroad and might one day come back and wage it at home. Jordanians felt the regional storm had passed them. Now they are fretting again about how strong their borders are, and what depth of support the jihadis could expect should they come. ■

Saudi Arabia's religious police

Advice for the vice squad

RIYADH

The government wants the piety police to be less thuggish

NOT long ago even members of the royal family were cowed by Saudi Arabia's religious police, formally known as the Commission for the Promotion of Virtue and the Prevention of Vice. The *mutaween*, as they are called in Arabic, roamed the malls and streets, enforcing the kingdom's strict interpretation of Islamic law. Their zeal was matched only by their cruelty. Most notoriously, in 2002 15 schoolgirls died in Mecca after members of the *mutaween* allegedly prevented them from fleeing a burning building because they were not covered up.

Today the *mutaween* are a weakened force, partly thanks to social media. Saudis have taken to filming their excesses and posting the footage online. Anyone with a smartphone can watch these courageous guardians of virtue harassing women for wearing nail polish. This has provoked a backlash. In April the government declared that the *mutaween* could no longer stop, pursue or arrest people and ought to be "gentle and kind" in their conduct.

Still, as the government enacts painful economic reforms, it needs the support of

South Africa

This other Eden Project

JOHANNESBURG

A plan for a whites-only town attracts minimal support

JACQUI GARY GRADWELL sports a bushy beard in the style of his *voortrekker* ancestors—the pioneers who fled British rule in ox-drawn wagons. Also in the spirit of the *voortrekkers*, he vows to lead his people away from oppression. Afrikaner culture is under threat in the new South Africa, he reckons. White people face "genocide". So Mr Gradwell (pictured) wants to lead like-minded whites—40,000 of them, he predicts—to a farm in a remote part of the Eastern Cape to live together in an agrarian idyll.

A promotional video for *Die Eden Projek* (The Eden Project) contrasts images of black rioters, black criminals and President Jacob Zuma with soft-focus photos of happy white families with tractors and chickens. It does not, however, mention Mr Gradwell's somewhat chequered past, which includes being convicted of firearms offences while living in America.

Mr Gradwell's plan has generated many headlines but little support. Disgruntled whites already have an enclave, but hardly anyone wants to live there. Orania, an Afrikaner-only town in the Karoo desert, has been around since 1991. Despite impressive organisation and towering ambitions (it has its own currency, the *Ora*, and a flag, which features a white boy rolling up his sleeves), it is home to just 1,100 people. Orania's isolation has left it economically unattractive and politically irrelevant.

Frans Cronje of the Institute of Race Relations, a liberal think-tank, says that news stories about white separatists can reinforce the gloomiest perceptions about South Africa: "that we're only one step away from a race war". But they are piffle. "Rank and file South Africans are

the religious establishment. So many people feared that the curbing of the piety police would turn out to be merely symbolic. But six months on, the change is striking. The *mutaween*, thought to number several thousand, have disappeared from public spaces. In Riyadh, the capital, men express relief at not being hounded to attend mosques during prayer time. Women wear more colourful (and sometimes open) *abayas*, a mandatory robe-like overgarment. "Now when I leave my house, I don't expect someone chasing me in his car. When I go to the shopping centre, they are not following me," says Fawzia al-Bakr, an activist and writer. "They were out of their

actually pretty committed to making it work with each other," he says. A survey from the IRR found that 76% of South Africans thought race relations had improved or stayed the same since 1994, when apartheid ended. In another poll, 68% of respondents said that they expected a happy future for South Africans of all races. Nonetheless, according to the Institute for Justice and Reconciliation, another think-tank, more than half of South Africans barely interact with people of other races except when at work or while shopping.

Still, some South Africans worry that tough times may aggravate racial tension. Youth unemployment is around 50%. The economy is dicing with recession. Mr Zuma's approval rating is a miserable 21%. A skilful demagogue could whip up something nasty from these ingredients.



A racially pure enclave of one

minds."

Founded in 1940, the religious police were popular at first. (Many Saudis, after all, favour virtue and deplore vice.) In 1979, after Islamic extremists seized the Grand Mosque in Mecca and denounced the royal family, the state doubled down, handing more power to conservative clerics and allowing the *mutaween* to grow more assertive. There were few repercussions when, for example, they reportedly chased two brothers off a bridge in 2013 for playing loud (though patriotic) music in their car on Saudi Arabia's national day.

Now, instead of dishing out punishments on the spot, the *mutaween* must re-►

► port violators of Islamic law to the police. The government is also trying to suppress vice among the vice-suppressors. Many *mutaween* were ex-convicts whose only qualification for the job was that they had memorised the Koran in order to reduce their sentences, wrote Lawrence Wright in his book, "The Looming Tower". Now they must be "of good character and behaviour, known for their good reputation" and must not have served more than a year in

prison. A stricter chain of command now has them answering directly to the king.

Liberals applaud the changes, but few Saudis believe the *mutaween* should be completely disbanded. Conservatives fear that morals will decline if less vigorously policed. In April a prominent cleric, Nasser al-Omar, said the *mutaween* should be given more power, "otherwise, this portends great danger." Such as women flagrantly wearing nail polish, presumably. ■

creasingly guide people through complex bureaucracies or demand that promises are kept. In Kenya, they help stateless Nubians acquire citizenship. In Mozambique they secure access to anti-retroviral drugs for people with HIV. The Community Law and Rural Development Centre, which runs paralegal offices in KwaZulu-Natal, South Africa, recovered 4.3m rand (\$300,000) last year from unpaid state benefits and the like.

Paying for all this is hard. Most paralegals are funded by foreign donors; this can mean that programmes are cut back when fashions change. One South African advice centre finances itself through a recycling business. Barefoot Law, a Ugandan non-profit run by volunteer lawyers, uses phones and social media to reach people cheaply. In Sierra Leone, a new land policy requires investors to pay into a fund supporting local paralegals (who help resolve land disputes, among other things). Lotta Teale of Open Society Foundations, a charity that promotes better governance, wants donors to set up endowments to pay for paralegals over the long term, though obviously this would be expensive.

Only a few countries recognise paralegals in law. Bar associations can be snuffy, pointing out that some paralegals take only a two-week crash course before being thrust into the field (though others train for two years). Organisations that employ paralegals could do more to monitor standards and maintain databases of cases.

The challenge is to become more professional while retaining the grassroots ethos. The best paralegals teach people to solve problems themselves, says Vivek Maru of Namati, an international legal network. Take Boxtion Kudziwe, a mobile-phone salesman in Malawi. He was charged in 2006 with murder and spent seven years in prison awaiting trial, only to be found not guilty. Today he works as a paralegal, using his experience to help others get bail. "Then I was ignorant," he says, recalling his arrest. No longer. ■

Justice in Africa

Poor law

GULU

The rise of paralegals

GODFREY EBREYU has a captive audience, in every sense. A throng of inmates has gathered in the prison yard in Gulu, northern Uganda, as he explains the intricacies of plea-bargaining. Like 55% of prisoners in Uganda, these men are awaiting trial; some have been here for years. They are still asking questions when, at four o'clock, they are ushered back into their crowded cells for the night.

Mr Ebreyu is a paralegal working for the Foundation for Human Rights Initiative, a Ugandan NGO. Paralegals have some legal training, but they are not lawyers. Across Africa they are helping to unclog courts, resolve disputes and bring justice to the most vulnerable, from suspects deprived of their liberty to farmers robbed of their lands. Some are paid, others are volunteers; they typically work for civil-society groups and tend to be locals.

Their work is desperately needed. Africa's people are mostly rural and poor; its fully qualified lawyers are mostly urban and expensive. In Uganda just one in a hundred disputes ever reaches a lawyer. When the civil war ended in Sierra Leone, the country's legal fraternity could have fitted in a couple of buses. In Malawi, murder trials were suspended in April this year because the legal-aid board couldn't afford defence lawyers; it has just nine of its own, and four of those are studying abroad.

Paralegals cannot take the place of lawyers in court. But legal representation is "the tip of the iceberg", says Clifford Msiska, who runs the Paralegal Advisory Service in Malawi. His workers teach those on remand how to ask for bail. They sift cases, alerting the courts when someone has been held beyond the legal limit. They track down relatives to stand surety, and push for children to be diverted into rehabilitation programmes instead of prison.

Criminal justice is just the start. In many places paralegals mediate in civil

disputes, such as arguments over land, reducing pressure on formal courts. That can create tensions with traditional leaders, who play a similar role (and often charge for it). Mechanisms such as community-oversight boards can reassure local big shots. Keeping the chiefs onside gives paralegals space to nudge customary law in more progressive directions, giving a bigger voice to women and the young.

Paralegals are particularly important in societies under stress. "Most prisoners are here as a result of land wrangles," says Aceng Jolly, a paralegal in Gulu, where land disputes have intensified as people return to villages abandoned in war: it only takes a flying fist or a false accusation to turn a civil issue into a criminal one. South African paralegals trace their origins to the anti-apartheid struggle. Sierra Leone's landmark legal-aid law, which promises paralegals in every chiefdom, was in part a response to the injustices which stoked a brutal civil war.

Even where states function well, they need to be held accountable. Paralegals in-





Inside the bear



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Inside the bear

When the Soviet Union collapsed 25 years ago, Russia looked set to become a free-market democracy. Arkady Ostrovsky explains why that did not happen, and how much of it is Mr Putin's fault

ON AUGUST 20th Guzel Semenova, a 25-year-old Muscovite, was strolling through the grounds of Muzeon, one of the city's parks, and stopped by a burnt-out, rusty trolleybus. Inside its shattered interior a small video screen was playing black-and-white footage of events that unfolded in the year she was born. A volunteer explained that the trolleybus had been part of an anti-tank barricade during a coup 25 years ago and symbolised the people's victory. Ms Semenova looked confused. The 22-year-old volunteer, herself unsure what exactly had happened during those three days in August 1991, said it was when "Russia became free." Ms Semenova listened politely, then walked on.

A patchy knowledge of those events is nothing unusual in Russia. A survey by the Levada Centre, the country's leading independent pollster, shows that half the overall population and as many as 90% of young Russians know nothing about the drama that began in the small hours of August 19th 1991.

That morning the world woke up to news of a coup. Mikhail Gorbachev, the last Soviet leader, was detained in Crimea, "unable, for health reasons, to perform his duties". Power had been seized by a group of hard-line Communists, the chief of the KGB and senior army generals, who declared a state of emergency. Tanks were rumbling through the centre of Moscow. The television, overrun by the KGB's special forces, was playing Tchaikovsky's "Swan Lake" on a loop. It was a last, desperate attempt to save the disintegrating empire.

But on the day of the coup

not a soul came out to support the Soviet regime. Instead, tens of thousands of Muscovites took to the streets to build barricades and defend their new freedoms. Boris Yeltsin, the first democratically elected president of Russia, then a subordinate part of the Soviet Union, called for resistance. The KGB's special forces were told to attack the Russian parliament, the epicentre of the opposition, but nobody was prepared to give a written order. Two days later three young men died under a tank. A few hours after that the troops were withdrawn and Gorbachev returned to Moscow. Jubilant crowds marched to the KGB's headquarters and toppled the statue of its founder, Felix Dzerzhinsky.

Those three days marked the end of the Soviet Union, but they did not become a foundation myth for a new Russia. The country was tired of myths. Modern school textbooks barely mention them. Russian officials used to lay flowers at a small monument to the three young men killed by the tanks, but even this modest gesture stopped in 2004. This year liberals were banned from marching to the place of their victory 25 ►►

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Economist.com/specialreports

years ago. The small festival at the Muzeon attracted a few hundred people who watched a stylised performance of "Swan Lake" and a documentary from those days. Shot in St Petersburg, the cradle of the Bolshevik revolution, it showed a vast, peaceful crowd in the main square watching the death throes of the Soviet empire. The camera also captured a young Vladimir Putin by the side of his boss, Anatoly Sobchak, then the mayor of St Petersburg, who had defied the coup. A demonstrator was heard to shout: "When we get rid of the communist plague, we will again become free and we won't have to fight [a war] again."

The revolution of 1991 overturned the Soviet Union's political, economic and social order and put 15 countries on the map where there had previously been only one. But like many revolutions in history, it was followed by a restoration.

The tsar the Kremlin most admires is Alexander III, who on taking office in 1881 reversed the liberalisation overseen by his father, who was assassinated, to impose an official ideology of Orthodoxy, nationalism and autocracy. His portrait and his famous saying, "Russia has only two allies: its army and its navy," greet visitors to a revamped museum of Russian history at VDNKh, a prime example of Stalinist architecture in Moscow. Stalin himself has had a makeover too. Gigantic portraits of him line the roads in Crimea, proclaiming: "It is our victory!"

The two main pillars of the Soviet state, propaganda and the threat of repression, have been restored. The KGB, which was humiliated and broken up in the aftermath of the coup, has been rebuilt as the main vehicle for political and economic power. The secret police is once again jailing protesters and harassing civil activists. In September the Kremlin designated the Levada Centre a "foreign agent", which could be the end of it. Television has been made into a venomous propaganda machine that encourages people to fight "national traitors" and "fifth-columnists". Boris Nemtsov, a liberal politician who once represented Russia's hopes of becoming a "normal" country, was murdered outside the Kremlin last year.

After nearly a decade of economic growth spurred by the market reforms of the 1990s and by rising oil prices, the Russian economy has descended into Soviet-era stagnation. Competition has been stifled and the state's share in the economy has doubled. The military-industrial complex—the core of the Soviet economy—is once again seen as the engine of growth. Alternative power centres have been eliminated. Post-Soviet federalism

has been emasculated, turning Russia into a unitary state.

Reactionary restoration at home has led to aggression abroad. Russia has invaded Georgia and Ukraine, two of the most democratic former Soviet republics. It has intervened in the conflict in Syria, propping up the regime of President Bashar al-Assad. It has attempted to undermine Euro-Atlantic institutions, backed right-wing parties in Europe and tried to meddle in America's presidential election. And it is once again using the threat of nuclear arms to blackmail the West.

After the defeat of the 1991 coup, Russia was widely expected to become a Westernised, democratic, free-market country. This special report will explain why that did not happen, and ask whether the West has a Putin problem or a much deeper and more enduring Russia problem.

Mr Putin was originally chosen for the top job by Yeltsin, Russia's first president, not least for being on the "democratic" side in 1991. When he came to power in 2000, he was expected to consolidate the country. Instead, he has reinstated an archaic model of the state.

It was naive to expect that after 74 years of Soviet rule, and several centuries of paternalism before that, Russia would rapidly emerge as a functioning Western-style democracy. But this report will show that Russia's relapse into an authoritarian corporate state was not inevitable. It was the result of the choices made by the country's elite at each new fork in the road. And although those choices cannot be unmade, they do not predetermine the future.

Not the Soviet Union

The collapse of the Soviet Union brought a massive change to Russia. The creation of private ownership launched industries that did not exist before, such as private banks, restaurants and mobile-phone networks. People are free to make money, consume and travel on a scale never seen before in Russia's history. They consume not just more goods and services but more culture and information. The state no longer dominates people's lives. Although it controls television, the internet remains largely unconstrained everywhere, and radio and print still have some freedom. Even Alexei Navalny, an opposition politician, admits that "despite the curtailing of political and civil freedoms, the past 25 years have been the freest in Russian history."

People are becoming increasingly alienated from politics, as demonstrated by the low turnout in the parliamentary elections in September, but they are finding other ways of expressing their views. Although few Russians remember quite how the Soviet regime ended, many enjoy the results. Russia has a vibrant urban middle class which, until recently, was richer than its equivalents in eastern Europe. Russia's cities, with their cafés, cycle lanes and shopping streets, don't look very different from their European counterparts.

A new generation of Westernised Russians born since the end of the Soviet Union has come of age. The children of the Soviet intelligentsia—a vast educated professional class that supported Gorbachev—dress, eat and behave differently from their parents' generation. They have a spring in their step.

Many of these young, educated Russians owe their comfortable lives to a decade of economic growth that began in

Russia redux

Brent crude oil price, \$ per barrel



Sources: Haver Analytics; *The Economist*



Mr Putin's Russia is a slippery construct in which simulation and bluff play a big part

► 1998 and ended with the economic crisis in 2008-09. The impact of that crisis exposed the limits of Mr Putin's model of governance. And although economic growth recovered fairly quickly, trust in Mr Putin's model of governance declined sharply, from 35% at the end of 2008 to 20% in early 2012, whereas support for Western-style democracy shot up from 15% to 30%.

Those who felt that Russia needed both economic and political modernisation pinned their hopes on Dmitry Medvedev, who served as president from 2008 to 2012. The Russian elite wanted him to stay for a second term, but in September 2011 he announced that Mr Putin, who was then prime minister, would resume the presidency, while Mr Medvedev would become prime minister. He indicated that this job swap had been planned right from the start of his presidency. Many people felt they had been duped. When three months later the Kremlin blatantly rigged the parliamentary elections, they took to the streets, demanding the same sort of respect from the state as citizens as they were enjoying as private customers at home and abroad. They wanted Russia to become a European-style nation state, an idea formulated by Alexey Navalny, an anti-corruption blogger who had galvanised the protests through social media. His definition of the governing United Russia as a party of "crooks and thieves", and the mood of protest, spread across the country.

Mr Putin was rattled and angry, but having witnessed the failure of the 1991 coup he knew that tanks were not the answer. Instead he trumped civic nationalism with the centuries-old idea of imperial or state nationalism, offering the idea of Russia as a besieged fortress. In 2014 he annexed Crimea. The tactic worked. The protests stopped and Mr Putin's personal approval ratings shot up from 60% to 80%. By attacking Ukraine after its own revolution in 2014, Mr Putin persuaded his country and its neighbours that any revolt against the regime would be followed by bloodshed and chaos.

Smoke and mirrors

The Soviet Union had many faults, but postmodernism was not one of them. Mr Putin's Russia is a more slippery construct in which simulation and bluff play a big part. Nothing is what it seems. Elections are held not to change power but to retain it; licensed "opposition" parties are manufactured by the Kremlin; Mr Medvedev's modernisation was an illusion; doctorates awarded to scores of Russian officials, governors and even to Mr Putin himself were based on plagiarism or cheating, according to Dissernet, a grassroots organisation.

In 2014 Russia put on a remarkable show with the costliest

winter Olympics ever staged, in Sochi on the Black Sea. The host country's athletes got the largest number of gold medals, not least thanks to a massive doping operation in which the Federal Security Service (FSB), the KGB's successor and Russia's main security organisation, swapped urine samples through a hole in the wall between an official laboratory and a secret one next door. (That caused many Russian athletes to be banned from this year's Rio Olympics.) In the same way that Russia has been doping its athletes, its state media have been doping the population with military triumphs and anti-American propaganda, conveying an artificial sense of strength. But unlike those sport victories, Russian violence in Ukraine and Syria is real enough.

Mr Putin's restoration project is working because the disintegration of the Soviet Union was not complete. The remains of the Soviet and even pre-Soviet system, its institutions, economic structure and social practices, which lay dormant during the first post-Soviet decade, have been revived and strengthened by the current regime.

But just as the Soviet and pre-Soviet legacies cannot be erased, nor can the quarter-century since the USSR ceased to exist. The fundamental conflict between a modern lifestyle and the political restoration under Mr Putin, exposed by the protests of 2011-12, has been suppressed, not resolved. No restoration has ever ended in a return to the past, and none has been permanent.

Russia, perhaps more than other countries, advances through generational shifts. The current reactionary phase may turn out to be no more than a detour on the path towards a modern, federalist nation state. Or it could lead to further decline, interspersed with outbursts of aggression. Which is it to be? ■

The economy

Milk without the cow

Political reform is an essential prerequisite to a flourishing economy

JUST ACROSS THE mighty Volga river from Sviyazhsk, an island fortress built by Ivan the Terrible in 1552 to help him conquer the Khanate of Kazan, stands a brand new city. It is the first to appear on Russia's map since the fall of the Soviet Union. Innopolis, 820km (510 miles) due east of Moscow, was founded in 2012 as an IT park and a model for the sort of modernisation that Dmitry Medvedev, Russia's prime minister and before that its president, had proclaimed a main priority. Now two years old, it is the smallest town in Russia, with the large ambition to launch the country into a high-tech era. Designed by Liu Thai Ker, the chief architect of Singapore, it has a university where 350 students are taught in English. Just half an hour's drive away is Kazan, the capital of Tatarstan, an oil-rich republic that has recently adopted a new 15-year strategy to turn itself into a hub of creativity and growth. "We are competing not with Russian regions but with the world. Our new oil is human capital," says Vladimir Gritskikh, a former physicist who co-ordinates the programme.

Innopolis has comfortable town houses, playgrounds with Wi-Fi and a large swimming pool. Igor Nosov, its manager, holds an American MBA. The city's free economic zone is dominated by a circular office building for high-tech firms. There is just one thing in short supply: the firms themselves. So far the building has only about a dozen occupants. "Well, we've built a collective farm. Now we need the farmers," quips one of the Tatar officials. ►

► Whether those farmers will come depends on a range of factors mostly outside Tatarstan's control.

Technical modernisation has been one of Russia's obsessions for centuries. At this year's St Petersburg Economic Forum, Herman Gref, the chairman of Sberbank, Russia's largest state bank, asked a short and simple question: "Can Russia compete?" The answer supplied by an American participant, Loren Graham, a historian of science at the Massachusetts Institute of Technology, was somewhat longer.

There was a difference between invention and innovation, he said. Russian scientists and engineers invented the laser, electric light and hydraulic fracking, yet time and again the country failed to reap any economic benefit from its scientific brilliance. The reason, Mr Graham explained, was not a lack of business talent but the adverse social, political and economic environment. Russia's authorities build expensive innovation cities, "but at the same time they prohibit demonstrations, suppress political opponents and independent businessmen, twist the legal system and create a regressive, authoritarian regime...They want the milk without the cow."

None of this was particularly new to Mr Gref. In 2000 the liberal economist, then aged 36, was picked by Mr Putin to draft a ten-year economic programme and lead reforms. "The centrepiece of the new social contract is the primacy of the citizen over the state," Mr Gref wrote at the time. "The country has a unique chance provided by political stability, appetite for reform and rising oil prices to renew itself. Unless that chance is used, economic regression is inevitable, threatening not only social stability but the existence of Russia as a state." Mr Putin signed off on Mr Gref's plan and hired Andrei Illarionov, a determinedly libertarian economist, as his adviser.

During the first eight years of Mr Putin's reign the economy grew by an impressive average of 7%, kickstarted by a 70% rouble devaluation in 1998. As state finances and economic rules became more stable, the market reforms of the 1990s began to have an impact. From the mid-2000s soaring oil prices stimulated further growth, mainly in the services and construction sectors, but also fuelled imports, and the economy started to overheat. When the financial crisis hit in 2008, the Russian economy crashed, contracting by 10% from the peak of 2008 to the trough of 2009.

The subsequent recovery was driven by higher government spending that propped up consumption. Between 2010 and 2014 the economy grew by only 3% a year, even though revenues from oil exports were 70% higher than during the oil boom of 2004-08. Russia used its abundance of natural resources to create a corporatist state that suppressed competition. Between

2005 and 2015 the share of the state in the economy doubled, from 35% to 70%.

Now the economy is in recession. Last year GDP shrank by 3.7% and real disposable income fell by 10%. Investment in fixed assets declined by 37% over the past four years, with the steepest fall coming after Russia's attack on Ukraine in 2014.

The people running the economy are competent, well-educated technocrats (such as the head of the central bank, Elvira Nabiulina). But there are limits to what they can achieve. A depreciation of the rouble against the dollar of almost 50% since the start of 2014 has failed to rekindle economic growth, partly because Russian producers in the past preferred to import parts and materials rather than invest in domestic capacity. Those intermediate imports have now become unaffordable.

The slump in the oil price and Western sanctions have exacerbated the problems, but they did not cause them. Growth started to slow down in 2012 and 2013 when the oil price was still high and before the invasion of Ukraine. The root causes are that Russia's market is not free, and the rules are opaque and enforced inconsistently. As an upper-middle-income country, it can develop only if its economy is integrated with the rest of the world. Its confrontations with the West and the activities of its security services make it an unenticing target for investment. "The investment climate matters in an open market economy. A state economy does not need an investment climate; it needs security services," jokes Sergei Belyakov, a former deputy economics minister. Russian businessmen have stopped investing in their own country mainly because they see no future.

Property and power

When the Soviet Union collapsed, many people hoped that once liberated from communist ideology and enjoying a free market, Russia would be able to make good use of its immense natural and intellectual resources. Yegor Gaidar, the architect of the Russian reforms, was among the few who realised that the market alone could not solve Russia's fundamental problem: the close nexus between political power and property. In an article published two years before he took charge of the economy, he wrote: "A market [by itself] does not answer the key question of who is supposed to benefit from the results of economic production; it can serve different social structures. Everything depends on the distribution of property and political power." Yet although the 1991 revolution overturned the political and economic system and led to the sale of state assets, it did not sufficiently separate political power and property.

Part of the problem was the type of economy modern Russia had inherited from the Soviet days. Stalin's crash industrial-



In need of reform

Russia

GDP, % change on a year earlier



Sources: IMF; Economist Intelligence Unit

Investment, % of GDP



Average real wages % change on a year earlier



Private consumption per person % change on a year earlier



*Forecast



No oil, no spoils

isation and urbanisation was designed to create a militarised autarky with a total disregard for cost, financial or human. Factories were built in cold and inaccessible places, using forced labour. The output of those factories was often worth less than the input in energy and materials. After Stalin's death they were kept going by oil and gas money. The factory managers, known as "red directors", travelled to Moscow to haggle with the relevant ministries for resources. They employed millions of people and had enormous lobbying power. When the Soviet Union collapsed, the only way to keep them quiet was to sell them their factories, which meant that much of industry remained in the hands of the old elite. Mr Gaidar reckoned that this was a price worth paying to prevent civil conflict.

Yet many of these companies could survive only if their energy and transport costs were subsidised. For example, Yukos, once Russia's largest oil firm, was forced to sell 70% of its oil in the domestic market, yet since its buyers could not afford to pay an open-market price, they accumulated huge debts that in the end had to be written off, says Mikhail Khodorkovsky, the company's former owner.

But whereas Gaidar's government in 1992 had to act urgently to stop the country from falling apart, Mr Putin had no such excuse. When he first took over, oil prices were rising and there was broad political support for reforms. However, according to Clifford Gaddy and Barry Ickes, two American economists, Mr Putin did not merely fail to dismantle the Soviet structure; he used Russia's windfalls to reinforce it in order to preserve social stability and votes.

It was always unrealistic to think that after the fall of the Soviet Union Russia would be able to build institutions overnight. Russia had been subjected to totalitarian rule for so long that it had no memory of life before it. Douglass North, a Nobel prize-winning economist, and co-authors have written that in Russia, as in many other countries, access to valuable rights, economic activities and resources is determined by privilege enforced by the political and military elites. This system, which he calls a

"limited-access order", relies on the ability of the elites to control rents, be it from land, raw materials or jobs for cronies. Its main objective is to preserve stability and prevent uncontrolled violence by giving those elites access to streams of rent. But that state monopoly on rent and violence collapsed with the Soviet Union.

Oligarchs and beyond

In the mid-1990s control over natural-resource firms passed to the oligarchs, a powerful group of business tycoons who emerged from the rubble of the Soviet Union. Their power rested not so much on violence but on entrepreneurship, which allowed them to accumulate capital. But they also cultivated personal connections with the liberals in the government to gain privileged access to the most valuable assets.

In 1995 they struck an audacious deal, offering to lend money to the cash-strapped government and put their resources, including the media they controlled, behind an ailing Yeltsin. In return, they asked to manage the government's shares in natural-resource firms. When Yeltsin was re-elected in 1996, they were allowed to auction off those shares to themselves. This "loans for shares" privatisation undermined the legitimacy of Russian capitalism and compromised the idea of property rights.

To protect their assets, the oligarchs had to ensure the continuity of the regime. In 1999, as Yeltsin prepared to step down, Boris Berezovsky, the ultimate oligarch, who had worked himself into the president's family, proposed Mr Putin as Yeltsin's successor. According to Berezovsky, Mr Putin had originally wanted to be chairman of Gazprom, Russia's natural-gas behemoth, but instead he was offered the job of running Russia Inc.

Mr Putin was shaped mainly by two experiences. One was his service in the KGB, which made him a statist. The other was his time in St Petersburg, where he served as deputy mayor in the early 1990s, dabbling in business. That turned him into a capitalist, but of a particular kind. Capitalism to him meant not free competition but connections, special access and, above all, deals. As Fiona Hill and Clifford Gaddy wrote in their book, "Mr Putin: Op-►

erative in the Kremlin", "Capitalism, in Putin's understanding, is not production, management and marketing. It is wheeling and dealing. It is not about workers and customers. It is about personal connections with regulators. It is finding and using loopholes in the law, or creating loopholes." Mr Putin did not destroy the oligarchy but merely changed the oligarchs, creating much closer links between property and political power. He wanted to control the market, transferring its benefits to the people he trusted—friends from St Petersburg and former KGB colleagues.

But whereas the oligarchs in the 1990s were ruthless self-made businessmen driven by profit, the men Mr Putin brought to power were specialists in suppression, violence and control, driven by revenge. The siloviki, people with roots in the KGB and other powerful ministries, had no special business skills, but quickly took over the commanding heights of the economy, capitalising on popular discontent with the oligarchs and using their licence to exert violence to amass property. In 2003 they jailed Mr Khodorkovsky, the most independent and politically ambitious of the oligarchs. A year later Yukos, his oil company, was dismembered and its assets taken over by Rosneft, a state oil firm chaired by Igor Sechin, one of Mr Putin's most trusted lieutenants and an informal leader of the siloviki.

During the years when the oil-price boom fuelled domestic consumption, the new elite not only came to control the distribution of rent, it also limited access to the market in order to reduce competition, developing a system which Kirill Rogov, a Russian political economist, describes as "soft legal constraints". It involves writing the rules in such a way that to observe them is either prohibitively expensive or downright impossible, then handing out informal licences to break those rules.

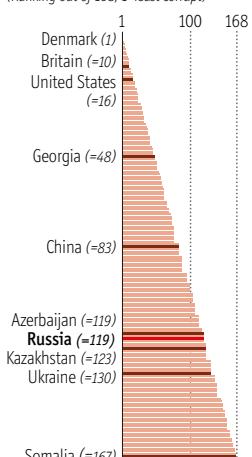
Licence to offend

Just as in the Soviet era red directors haggled for resources, market participants now haggle for the right to break the rules, so the system gives the security services ultimate economic and political control. The licence can be withdrawn at any time if its holder steps out of line or gets too greedy, or if his assets start to look too attractive.

The story of Igor Pushkarev, a former mayor of Vladivostok, illustrates the point. In the early 2000s Mr Pushkarev, the owner

A grubby image

Corruption perceptions index, 2015
(Ranking out of 168, 1=least corrupt)



Source: Transparency International

of a large cement firm in Russia's far east that got a lot of orders from the government, joined Mr Putin's United Russia party, and in 2008 he was elected mayor of the city. Earlier this year he challenged Vladimir Miklushevsky, the regional governor, in the party primaries. Mr Miklushevsky went to see Mr Putin, and the next day Mr Pushkarev was arrested for "abuse of office". The FSB started to expropriate his assets straight away.

Such lack of clear property rights creates distrust at all levels of Russian society, heightens the role of the security services and raises transaction costs. Every other Russian shop or restaurant employs security guards. While the economy was growing, there were

plenty of profits to spread around and keep everyone happy, but now that it is shrinking, the rules have become even less clear and the fight for resources has turned more brutal. Property can be taken away regardless of political loyalty, turning owners into temporary holders.

Take Vladimir Yevtushenkov, the owner of Sistema, a holding company, who is perfectly loyal to the Kremlin. In 2009 Sistema bought a controlling stake in Bashneft, a medium-sized oil firm, from a local authority for \$2.5 billion. It had been given explicit approval by Dmitry Medvedev, who was president at the time. But in September 2014 Mr Yevtushenkov was arrested and charged with buying stolen goods. His real crime was reportedly to refuse to sell Bashneft, which had become one of the world's fastest-growing oil firms, to Rosneft, at a price below its market value. After three months under house arrest, Mr Yevtushenkov was released and cleared of all charges—but not before giving up

Bashneft, a controlling stake in which has now been sold to Rosneft for \$5.2 billion. The day after he was released, Mr Yevtushenkov (who still owns MTS, Russia's largest mobile-phone company) went to a drinks party at the Kremlin and spoke to Mr Putin. "I thanked him for his wise decision...to release me," Mr Yevtushenkov recently told Dozhd, an independent internet television channel. He continued: "If [you] like any of my other companies—you are welcome."

Faced with prolonged economic stagnation, the Kremlin is now trying to stimulate growth by pouring money into the military-industrial sector and into infrastructure projects. Given the level of corruption, though (see chart), the cost of these projects could outweigh their benefits. And in the absence of a thriving private sector, those new roads and bridges may not do much good.

The main problem with Russian modernisation, says Mr Rogov, is that the new, competitive urban middle class that



► has emerged as the economy has developed has no place in the current authoritarian model, which is designed for those who depend on the state but cannot compete.

The prospects for change are not encouraging. As North observed, limited-access orders have been in operation for thousands of years: "No forces inherent in the logic, social structure or historical dynamics of limited-access orders inevitably lead them to become open-access orders. Because natural states have internal forces built on exclusion and rent-creation, they are stable orders...extremely difficult to transform." Technology does not help because the elites can adopt it selectively, without having to face competition.

Natalia Zubarevich, a Russian economist and geographer, argues that one of the biggest risks for Russia is not an implosion but a slow economic and intellectual degradation. As long as Russia's elite sees modernisation as a matter of technology rather than of open access based on the rule of law, Innopolis is likely to remain the smallest town in Russia. ■

Power structures

Wheels within wheels

How Mr Putin keeps the country under control

MYSTERY, MIRACLE AND authority are three powers alone able to hold the conscience of people captive, explains Fyodor Dostoyevsky's Grand Inquisitor in "The Brothers Karamazov". Mr Putin has mastered all three. Yet none of these is as important as secrecy, the main tool of a good spy. Nobody really knows what goes on behind the Kremlin's thick walls, or inside Mr Putin's head. But several things are becoming clearer. Mr Putin's rule is turning increasingly personal; a generational shift is taking place within his entourage; and the FSB, the successor organisation to the KGB, is emerging as the main mechanism for exercising power, often at the expense of all other security services, including the police.

Mr Putin had always relied heavily on his former KGB colleagues, but after the annexation of Crimea the expansion of the FSB gained new momentum and greater public legitimacy. It now openly wields political and economic power. Mr Putin has recently appointed three members of his security detail and one former KGB officer as regional governors.

After Stalin's death in 1953, the KGB was a "combat division" of the Communist Party, tightly controlled by its central committee, which did not want to see a repeat of Stalin's purges. When the party collapsed in 1991 the KGB lost its lustre, but the new rulers never dismantled it. Though the party could not survive without ideology, the KGB could.

Today the FSB is personally overseen by Mr Putin. "There is no political control over the FSB. It is a self-contained and closed system," says Andrei Soldatov, an expert on Russia's security services.

Behind the scenes, the FSB controls the Investigative Committee, the Russian equivalent of America's FBI. The prosecutor's office, in effect, has no independent oversight of the FSB and the courts take their cue from it.

On September 18th, the day of the parliamentary elections, *Kommersant*, an authoritative daily newspaper, reported the Kremlin's plan to fold other parts of the former KGB, including the foreign intelligence services (SVR) and the Federal Protection Service, which is responsible for guarding top Russian officials, into a new megastructure: the Ministry for State Security, or MGB, which is what the KGB was called under Stalin. The date of the report is telling. The parliament has become an appendix of the FSB. As Tatyana Stanovaya of the Carnegie Moscow Centre notes, the FSB drafts most of the repressive laws that are rubber-stamped by the parliament.

The FSB is a notoriously opaque organisation, but one of its most powerful figures appears to be Sergei Korolev, who used to head the internal-security department that can investigate the staff of all security services, including its own. He has recently been promoted to the job of overseeing all financial and business activity in Russia. His team was behind most of the high-profile arrests of governors, mayors and policemen in recent years. These started with two young generals from the interior ministry, Denis Sugrobov, the head of the ministry's economic-crime and anti-corruption department, and his deputy, Boris Kolesnikov. Both in their mid-30s, they had been installed in their jobs by Dmitry Medvedev, Russia's current prime minister and former president, and given carte blanche to go after corrupt senior officials.

Yet soon afterwards they became victims of a sting operation set up by the FSB. In his prison cell Mr Kolesnikov suffered a head injury and six weeks later, during a formal interrogation, he apparently killed himself by jumping out of a sixth-floor window. Mr Sugrobov remains in jail.

The public is regularly treated to footage of governors, policemen and officials being led away in handcuffs, their homes being searched and enormous piles of cash being confiscated. The most spectacular arrest so far has been that of Dmitry Zakharchenko, a police colonel who had hidden \$120m in cash in his sister's flat. A few weeks earlier the FSB had raided a vast mansion belonging to Andrei Belyaninov, the head of the customs service and a former KGB officer, and found \$670,000 in cash, a



The FSB is emerging as the main mechanism for exercising power in Russia

► one-kilo gold ingot and assorted old-master paintings. Mr Belyaninov was fired from his job but not charged.

Hardly anyone believes that such raids help the fight against corruption, which remains an organising principle of Russia's political system, but they go down well with the public. It is said that Mr Putin is using men like Mr Korolev to purge the ranks of the FSB itself and keep its members on their toes and the elites in check. The practice harks back to Stalin, who wielded his power almost exclusively through the NKVD, the KGB's predecessor, regularly purging the party.

Mr Putin's rotation of cadres so far has been much softer. None of the senior people in his entourage has yet lost his freedom or his fortune. Mr Belyaninov has said he is hoping to find another government post. Mr Korolev's rival has been "exiled" to Rosneft, the mammoth oil company. Every important Russian firm and institution has an FSB officer seconded to it, a practice preserved from Soviet days.

But as Mr Putin's personality cult grows, he is severing his connections with the old comrades who remember him as a lowly young KGB officer and bringing in new people who have known him only as president. Many of those who had started with him have already stepped down, including Sergei Ivanov, a long-serving chief of staff and former KGB general, Viktor Ivanov, the former head of an anti-drugs agency, and Evgeny Murov, the trusted (but ageing) head of the Federal Protection Service. Mr Putin has also got rid of some of the old KGB guard who had headed Russia's largest state-owned corporations.

Pass it on

They have been replaced by youngish men who owe their careers entirely to Mr Putin. Mr Putin's new chief of staff, Anton Vaino, aged 44, is the grandson of a Soviet-era Estonian Communist Party leader and a third-generation bureaucrat. But while civilians have been installed to run the Kremlin apparatus, the children of the old siloviki are moving into key positions in state banks and natural-resource companies. The son of Mr Murov is chairman of the management board of the state-owned Federal Grid Company, Russia's main electricity supplier. Dmitry Patrushev, the son of the Security Council chief, Nikolai Patrushev, heads the Russian Agricultural Bank, a large state-owned bank.

One of the communist regime's key weaknesses was the impossibility of passing on wealth. When old party bosses died, their families were mostly left with nothing. It was also one of the main reasons why many members of the Soviet *nomenklatura* supported the revolution in 1991. These days Russia's elite can pass on its possessions to its children, but its wealth and its physical safety depend on Mr Putin.

Perhaps in an effort at diversification, Mr Putin recently announced the creation of a new security structure, the National Guard. Headed by Viktor Zolotov, who used to be one of Mr Putin's bodyguards, it has 25,000-40,000 special commandos at its disposal, along with 400,000 troops. These are not part of the regular army of about 930,000 and report directly to Mr Putin.

The creation of the National Guard is meant to head off the threat of another colour revolution (as the series of peaceful uprisings in former Soviet republics became known), explains Alexander Golts, a Russian military analyst. The scenarios used in its training are based on the protests in Ukraine and involve the use of tear gas and water cannon as well as conventional weapons. One of the lessons the Kremlin learned from the failed coup of August 1991 was that in a political crisis a regular army may be reluctant to use force against protesters.

As a former bodyguard, Mr Zolotov is responsible for Mr Putin's personal safety, but also for providing some balance to the powers of the FSB. In a closed political system, trust is low. ■



Foreign policy

The fog of wars

Adventures abroad boost public support at home

RUSSIA HAS NO intention of going to war with America or its allies. Instead it will act through non-military means "to undermine the general political and strategic potential of major Western powers, to disrupt national self-confidence, to increase social and industrial unrest, to stimulate all forms of disunity...Anti-British talk will be plugged among Americans, anti-American talk among British. Germans will be taught to abhor both Anglo-Saxon powers. Where suspicions exist, they will be fanned; where not, ignited." So wrote George Kennan, the "wise man" of American diplomacy, in a famous telegram from Moscow in 1946. Seventy years later the telegram seems as relevant as ever, because the system that Kennan described is being rebuilt.

Russia has launched cyber-attacks, spread disinformation and interfered in the domestic affairs of both neighbouring and faraway countries. Its military jets are buzzing NATO's ships and flying close to American reconnaissance aircraft in Europe. The American government has formally accused Russia of meddling in the presidential election by means of extensive hacking. In Syria it has subverted America's efforts to defeat Bashar al-Assad and threatened to shoot down American warplanes if they attack his army.

The BND, Germany's foreign-intelligence agency, is investi- ►



▶ gating Russian activity in Germany after Russia's state television ran a fake story about a 13-year-old Russian-German girl being raped by Arab immigrants in Berlin. Spread through social media, the story sparked protests against Angela Merkel, the German chancellor.

Russia has provided funds for the French right-wing party of Marine Le Pen. RT, the Kremlin's foreign-language propaganda TV channel, has offered a regular spot to Nigel Farage, the former leader of Britain's far-right UKIP party. Russia's support for Donald Trump, the Republican presidential candidate, who has also appeared on RT, has become a talking-point in America's forthcoming election.

None of this is particularly new. Subversion, disinformation and forgery, combined with the use of special forces, were at the heart of the Soviet Union's intelligence services. The KGB had a special department responsible for "active measures", designed to weaken and undermine the West. It stirred racial tension by posting bogus letters from the Ku Klux Klan, planted stories about AIDS having been invented in America as a biological weapon and put it about that John F. Kennedy's murder was plotted by the CIA.

Yuri Andropov, the head of the KGB in the 1970s and one of Mr Putin's heroes, set up special courses to train operatives in the use of active measures. At the height of the cold war 15,000 officers were working on psychological and disinformation warfare. When the Soviet Union collapsed, the department was renamed but never dismantled.

Modern technology has helped it widen its scope; the Kremlin now uses large numbers of "trolls" that spread disinformation and propaganda through online communities and social media. It also helps Russia to sow confusion by putting out multiple versions of events. According to Alexander Vershbow,

NATO's deputy secretary-general and a former American ambassador to Moscow, it is "an endlessly changing storyline designed to obfuscate and confuse to create the impression that there are no reliable facts, and therefore no truth."

This echoes Kennan's observation in 1946 that "the very disrespect of Russians for objective truth—indeed, their disbelief in its existence—leads them to view all stated facts as instruments for furtherance of one ulterior purpose or another." Unlike Soviet propaganda, which aimed to promote communist ideology, modern Russian propaganda aims to show that Western policies are as rigged and hypocritical as Russian ones.

Assessing the effectiveness of these Russian attempts to influence opinion abroad is hard because they often tap into existing sentiments, from disenchantment with elites to resentment of immigrants. But research by Finland's Institute of International Affairs has found that Russian propaganda has had very little impact on mainstream Western media and has never resulted in any change in policy. A strong and confident West should find it easy to brush off Russian media assaults. But sober political thinkers have noted some signs of a "Putin panic" in the West, and Mr Putin himself has said that America's attempts to present Russia as an "evil empire" indicates "Russia's growing influence and significance".

In the eyes of his own people, Mr Putin has restored his country's status to that of the Soviet Union. According to a recent report by the Aleksanteri Institute in Finland, a think-tank, "the West's response to the Crimea annexation partially did exactly what Putin had demanded: putting forward the notion of Western weakness in the face of Russia's superior 'hybrid warfare' capabilities implies respect and even fear of Russia as a powerful global actor."

The country's intervention in Syria in the autumn of last year was designed to reinforce the image of Russia as a global power. It did change the course of events, saving Bashar al-Assad from a seemingly inevitable fall, and made the humanitarian situation in Syria far worse. But Russia cares little about the future of Syria. It sees the war there as a way of forcing America to recognise a Russian sphere of influence in the former Soviet Union.

Weakness in strength

The wars in Ukraine, Georgia and Syria have demonstrated Russia's willingness and ability to use its military power to achieve political goals. But they are not a sign of Russia's strength; instead, they indicate deep insecurity. As Kennan wrote: "At [the] bottom of [the] Kremlin's neurotic view of world affairs is [the] traditional and instinctive Russian sense of insecurity...This thesis provides justification for that increase of the military and police power of the Russian state...Basically this is only the steady advance of uneasy Russian nationalism, a centuries-old movement in which conceptions of offence and defence are inextricably confused." This nationalism continues to shape Russia's behaviour today.

Mr Putin sees Russia's wars as a form of self-defence, driven by the need to deter the West. That is what he meant when he gathered the country's elite in the Kremlin's gilded hall to announce Russia's "reunification" with Crimea on March 18th 2014. "Like a mirror, the situation in Ukraine reflects what has been happening in the world over the past several decades. Our Western partners, led by the United States of America, prefer not to be guided by international law but by the rule of the gun." In Ukraine, he said, the West had crossed a red line. Western actions left Russia with no choice but to send its troops into Crimea.

Yet only a few days earlier Mr Putin had told the German chancellor, Angela Merkel, that there were no Russian troops in Crimea. "He lives in another world," she was reported to have ➤

→ said to Barack Obama. In his world the West was trying to undermine Russia. The colour revolutions across the former Soviet Union and the protests in Russia in the winter of 2011-12 were Western plots.

Yet his view of the West as a threat was not, as many have argued, his starting position; it developed in response to changes inside Russia and the former Soviet republics. When Mr Putin became president in 2000, he showed no overt hostility towards America or the West, despite a recent NATO bombing raid on Belgrade without a UN resolution that had triggered a shrill anti-American response. In his first interview with Britain's BBC, Mr Putin said: "I cannot imagine my own country in isolation from Europe, so it is hard for me to visualise NATO as an enemy." Russia, he said, might become a member of NATO if it were treated as an equal partner. Even when the three Baltic states joined NATO in spring 2004, Mr Putin insisted that relations with the defence organisation were "developing positively" and he had "no concerns about the expansion of NATO".

The breaking-point in Mr Putin's relationship with the West came towards the end of that year when several seemingly unrelated events coincided. The first was a terrorist attack on a school in Beslan, in the north Caucasus, in which 1,200 people, mostly children, were taken hostage. After Russia's special forces stormed the school, leaving 333 people dead, Mr Putin accused the West of trying to undermine Russia. He cancelled regional elections and handed more powers to the security services.

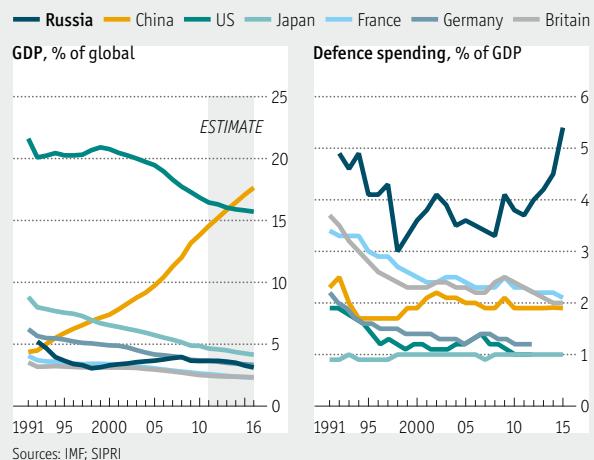
The next key event was the dismemberment and expropriation of the Yukos oil firm, which further emboldened and enriched the siloviki with roots in the Soviet KGB. They thrived on the idea of a Western conspiracy and an exaggerated sense of the West as an enemy.

The call of liberty

Just such an enemy was provided by the Orange revolution in Ukraine in 2004-05, a popular uprising against rigged presidential elections in which Mr Putin had backed Viktor Yanukovych, a corrupt thug. His defeat at that time (he was elected later) was seen as a humiliation for the Kremlin and an ominous sign of American meddling, underlined by George W. Bush's praise for democracy in Georgia and Ukraine and his comment that "eventually the call of liberty comes to every mind and every soul." Mr Putin saw Georgia's successful reforms and its determination to break out of the post-Soviet system and move towards the West as a threat, in the same way as the Soviet Union had felt threatened by liberal reforms in Czechoslovakia in 1968. And just as the Kremlin had responded by ordering tanks into Prague to stop the reforms spreading to the Soviet Union, so Russia sent its tanks and planes into Georgia in August 2008. Immediately after that war Mr Putin ordered a thorough modernisation of the Russian armed forces.

America chose to follow the war in Georgia with a "reset" initiated by the new Democratic president, Mr Obama, and his secretary of state, Hillary Clinton. But when protests broke out in 2011-12 Mr Putin accused Mrs Clinton of spurring protesters on: "She set the tone for some actors in our country and gave them a signal...They heard the signal and with the support of the US State Department began active work." As Ms Hill and Mr Gaddy wrote, "America and Europe encourage political and economic change as a matter of course in their foreign policies. The essence of Western political systems extends to promoting democracy and liberal markets abroad." But whereas Western governments see such efforts as benign, Mr Putin considers them a danger, they continue: "Western-style democracy and open markets are a clear threat to a Russian political system that thrives as a closed one-body network and an economic protection racket." In Rus-

Economic plight, military might



sia's new military doctrine, signed by Mr Putin at the end of 2014, popular uprisings against an oppressive regime were classified as a military aggression which warrants a military response.

In January 2013 Valery Gerasimov, then newly appointed as chief of staff, had spoken about a new type of warfare that Russia had to face. "The emphasis in methods of struggle is shifting towards widespread use of political, economic, informational, humanitarian and other non-military measures...Overt use of force, often under the guise of peacekeeping and crisis management, occurs only at a certain stage, primarily to achieve definitive success in the conflict." The revolution in Kiev in the winter of 2013-14 which overthrew Viktor Yanukovych was perceived by the Kremlin as an escalation of hostilities by "hybrid means".

Russia's heavy propaganda campaign which portrayed Ukraine's post-revolutionary government as fascists paved the way for its own special forces in Crimea, allowing them to stage a coup, overthrow the legitimate government and appoint its placemen who quickly called an unconstitutional referendum on joining Russia. In Mr Putin's mind, Russia's actions in Crimea and eastern Ukraine merely mirrored Western "hybrid" tactics, including special forces, disinformation and mobilisation of the protest potential of the local people. The annexation of Crimea was bloodless.

In eastern Ukraine the task was different. It was not to annex territory but to spark a conflict that would undermine Ukraine's territorial integrity and its chances of moving towards the West. Whereas in Crimea Russia relied on a disenchanted population nostalgic for the Soviet era, in Donbas it was supported by the core of Mr Yanukovych's voters who considered the government in Kiev illegal. But Russia's operations in both Crimea and eastern Ukraine were limited in scale and depended on a power vacuum in Kiev. As Alexander Nevzorov, a Russian journalist, wrote, "Crimea was taken not from a strong, rich and brave country but from a wounded, bleeding and motionless one."

Samuel Charap of the International Institute for Strategic Studies notes that if Russia had attempted to deploy its "little green men" (soldiers in unmarked green uniforms) in Western Ukraine, for example, "they would have likely been hanging from the lamp-posts, not leading an armed insurgency." Even in Donbas, Russia had to use its conventional military force to stop the Ukrainian army from defeating the Russian-armed rebels. Russia's Ukraine operation, therefore, should not be seen as a template for a potential conflict with NATO, Mr Charap argues. ➤

► Belarus, another Slavic, Russian-speaking country that was one of the founding members of the Soviet Union, could also be a target. It is ruled by Alexander Lukashenko, often called the last dictator in Europe, and so far Russia has kept him going with its gas subsidies. But should the Kremlin sense that Mr Lukashenko's grip is weakening or that he is turning towards the West, it could easily stage a coup and take the place over.

The perception of Russia's military advantage rests on two main elements, argues Alexander Golts, a Russian military analyst. One is unpredictability and surprise, because Mr Putin is not constrained by any formal institutions or by his own team. The other is Russia's ability quickly to deploy well-trained, disciplined and equipped troops, thanks to the modernisation of its forces enabled by a 30% increase in spending in real terms since 2008. Russia has about 80,000 elite troops that can be sent into battle within hours.

Russia's conventional military expansion is limited by its demography. According to its own estimates, this year it will be able to increase its forces by only 10,000 men, barely enough for one division. It also needs to be careful to minimise casualties, which go down badly with a population that sees war as a television show. The number of people who supported Russia's military invasion in Ukraine declined from 47% in June 2014 to 25% a year later, according to the Levada Centre.

The nuclear option

Russia's military-industrial complex is unable to produce anything close to Soviet volumes of hardware. But the country's relative economic and military weakness compared with NATO does not make the country any safer; on the contrary, it poses a big risk. The only way Russia can compensate for the gaps in its conventional forces is to invoke the threat of a nuclear strike. After the annexation of Crimea Mr Putin said he had been ready to use nuclear arms to defend his country's "historic territory". And after Russia showed off its long-range cruise missiles in Syria, Mr Putin said that it was prepared to use its powerful weapons if its national interests were infringed upon, implying that those missiles might one day carry nuclear warheads. America's "impudent behaviour" would have "nuclear consequences", said one of Mr Putin's chief propagandists.

After Stalin's death the Soviet Union was ruled by a generation of leaders who, having emerged as victors from the second world war, were naturally averse to another big war and genuinely fearful of the use of nuclear arms. They were also restrained by the collective power of the Politburo, which had ousted Nikita Khrushchev soon after he dragged the Soviet Union into the Cuban missile crisis.

Mr Putin, on the other hand, is bound by few constraints and has no particular aversion to war. His initial popularity as president rested on the war he had waged against Chechnya in 1999, and his sagging ratings were restored by the war in Ukraine.

Yet Mr Putin would not unleash a war for ideological reasons. He will continue to present his actions as defensive. What he is ultimately after is a new pact along the lines of the Yalta agreement after the second world war which would create a buffer zone between Russia and the West. In the absence of such a deal, Mr Putin will continue to confront his perceived enemies by both non-military and military means. Western sanctions only reinforce his determination.

Mr Putin has no plans to conquer the world. He may be impervious to logic or reason, but he is highly sensitive to force. He knows he cannot afford a conventional war with the West, but he could quickly raise the stakes to the verge of a nuclear war, believing that the other side would always blink first. Over the past 16 years the West has done little to persuade him otherwise. ■

Modern life

Tell me about Joan of Arc

Young people are finding new ways of signalling dissent

"THE TEN BEST Patisseries in St Petersburg", "12 Crazy Photographs of Famous Sites", "A South Korean Erotic Thriller". These are just some of the main headlines colourfully displayed on the Russian news site *Bumaga* (Paper). "We modelled it on Vox and the Boston Globe," says Anna Kosinskaya, its co-founder and editor. *Bumaga* is totally independent. When it started four years ago, it had no funding. Now it makes money from advertising.

Ms Kosinskaya, red-haired and open-faced, is 26, just one year older than post-Soviet Russia. She spends her time in a part of St Petersburg well supplied with cool lofts, funky bars and gastropubs. Though not rich, she has travelled the world. Her generation of educated, urban young Russians has very little in common with the cowed *Homo sovieticus* who still abounds. In 2011 they took to the streets to protest against rigged parliamentary elections. For Ms Kosinskaya this was the first election in which she was able to vote. She would not accept the standard practice of rigging, not because she had a particular preference for any party, but because she thought it was disrespectful and wrong.

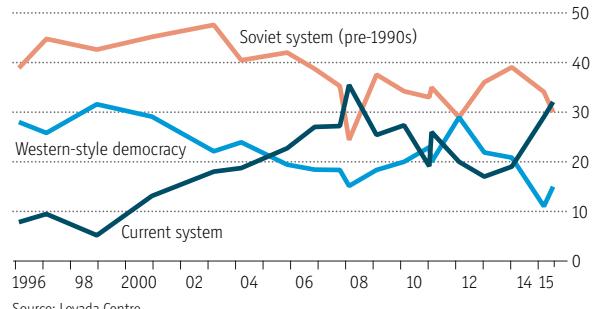
Ms Kosinskaya was ten when Vladimir Putin became Russia's president. "I liked him. He was young and energetic," she says. Her lifestyle owed much to the economic growth over which Mr Putin presided. But gradually she became disillusioned both by the president and by Russia's general political direction, and in the winter of 2011 she had to watch her friends being bundled into police vans for trying to uphold the law. The demands of Ms Kosinskaya and her friends echoed the slogan of the Soviet human-rights activists: "State, respect your own laws."

Watch the graffiti

Five years on, last month's parliamentary elections passed without incident. Alexei Navalny, one of the leaders of the 2011 protests, says people have lost interest in politics. Many of his former supporters switched sides following Russia's annexation of Crimea. Street artists who were drawing anti-Kremlin graffiti five years ago have switched to anti-American themes. One drawing shows a fish with blue stripes and red stars inside a blender in the colours of the Russian flag. ►

The devil you know

Which political system do you believe is best, Soviet (pre-1990s), current, or Western-style democracy?, % of Russians responding



▶ But many young, liberal Russians feel frustrated. "We live with the feeling that something really important did not happen in our lives," says Phillip Dziadko, a former editor of *Bolshoi Gorod*, a Moscow magazine which five years ago was the flag-carrier of the protest movement. Its owners have since closed it down. "Many of my friends feel as though we have gone into internal exile," says Ms Kosinskaya.

Until recently young Russians did not see themselves as part of the intelligentsia. "This was something rather archaic for us; people who talked a lot and did very little," says Ms Kosinskaya. But now the survival strategies developed by their parents' generation, particularly their ability to carve out niches where they could apply their skills and knowledge, have become relevant to younger people too.

One of the most popular authors among the new generation is Sergei Dovlatov, a Soviet writer from the 1970s. He emigrated to America where he died in 1990. In his prose he cultivated self-irony and sought privacy and autonomy from the Soviet state. In the words of a friend, Joseph Brodsky, Dovlatov "belonged to that generation which took the idea of individualism and the principle of autonomy of human existence more seriously than anyone, anywhere." On September 3rd this year thousands of people in St Petersburg celebrated what would have been Dovlatov's 75th birthday and unveiled a privately financed statue of him.

Say it with culture

Although the state today suppresses independent civil and political activity, it allows a lot more personal freedom than it did in 1979 when Dovlatov left. Since the mainstream media are mostly pumping out government propaganda, Russia's modern intellectuals have got involved in cultural projects. Public lectures by notable scholars, both Russian and foreign, on subjects from urbanism to artificial intelligence gather mass audiences. Tickets to such talks sell out within hours. Every night dozens of events take place in Moscow and other cities. Book fairs attract queues to rival those for pop concerts. A new shopping centre in Yekaterinburg, in the Urals, has organised a book round-table as one of its opening events.

Public lectures, intellectual discussions and excursions have evolved into a business. "Ten years ago, to raise money from investors, you needed to say only one word: 'media'. Today all you have to say is 'education,'" says Yuri Saprykin, a former editor of *Afisha*, a listings magazine that helped shape the tastes of the urban middle class. The trend started a few years ago when a site called "Theory and practice" began to provide a wide variety of courses and lectures. The young are wild about classical music and art museums. "If you are not learning something outside your work, you are a loser," says Ms Kosinskaya.

Mr Dziadko, the grandson of Soviet dissidents and human-rights activists, and a group of friends have launched a popular multimedia education and entertainment project called Arzamas, a name borrowed from a 19th-century literary society of which Pushkin was a member. The subjects range from Elizabethan theatre and medieval French history to the anthropology of communism and the my-

thology of South Africa. A few months ago Arzamas organised an evening lecture about Joan of Arc, including a recital of medieval music, at Moscow's main library. "We thought it would be attended by a few intellectuals. But when we turned up 15 minutes before the lecture, we saw a long queue of young people and hipsters trying to get in," says Mr Dziadko.

The boom in "enlightenment" projects is not so much a reversal of the rise of consumerism in the previous decade but a complement to it. Just as Russian people were suddenly presented with a vast choice of consumer goods, they now have a large array of intellectual pursuits to choose from. And whereas Russia's government can impose a ban on imports of Western food, barring the spread of knowledge is much harder.

The main producers and consumers of these enlightenment projects are young Westernised Russians who are part of a global culture. Their pursuit of a wide range of knowledge is a way of fighting the isolationism and aggressive obscurantism imposed by both state and church. This takes many forms, from banning modern-art shows to organising anti-gay campaigns, promoting anti-Darwinism and attempting to stop abortions.

Popular books about biology and physics currently sell better than detective stories. Yulia Shakhnovskaya, the director of the Moscow Polytechnic Museum, where Evgeny Yevtushenko read his poetry in the 1960s, says that education and science have become a form of resistance to politics. "We can't win but that does not mean we should stop resisting, so we try to grow a garden in the middle of hell." She says her main target audience is teenage schoolchildren, who are desperate for knowledge: "Good marks are no longer the main prerequisite for getting a good job in Russia...but the demand for knowledge is still there, so we try to satisfy it by other means."

Ms Shakhnovskaya's patrons include Igor Shuvalov, the first deputy prime minister in charge of the economy, and Anatoly Chubais, the father of Russia's privatisation programme. They are helping to promote an educated and emancipated elite that could gradually begin to change the system, which is what happened in the 1980s.

For now at least, the educated urban class does not pose a ➤



A thirst for knowledge

► serious political threat to Mr Putin. But it represents a different and more fundamental challenge that has to do with values and ideas. Some of the most striking independent public-lecture projects recently launched had titles such as "The return of ethics" and "Public lies", involving both Western and Russian philosophers, economists, sociologists and writers.

This new generation of educated young urbanites has criticised Russian politicians and opinion-formers of the 1990s and 2000s for viewing human-rights abuses and the lack of independent courts as unfortunate impediments to business and foreign investment, rather than bad things in themselves. Yet "despite the total amorality of politicians and bureaucrats, or maybe because of it, the demand for ethics in the public sphere is growing, not falling," says Andrei Babitsky, a former editor of the *Inliberty* website that organised the lectures on ethics and lies. The power of ideas should never be underestimated, especially in Russia. ■

Past and future

Take care of Russia

But Mr Putin is not setting about it in the best way

WHEN BORIS YELTSIN walked out of his office for the last time, at the end of 1999, he famously told Mr Putin: "Beregite Rossiyu!", which translates as "take care of Russia" or "preserve Russia". But what did he mean by "Russia"? Was it a new country born from the 1991 revolution, or was it an old Russia restored after the Soviet regime? Unlike other Soviet republics, it could not celebrate its independence from the Soviet Union because it had been its core. Nor could it hitch its wagon to the European Union and NATO—it was simply too big.

Russia's freedom in the 1990s had been sustained not by the institutions of an enlightened state but by a plurality of economic and political actors, the weakness of the security services and Yeltsin's determination to defend it. His legitimacy and support rested largely on the Russian people's rejection of the communist system that produced plenty of missiles and tanks but little that anyone wanted to consume.

When they rejected communism in the 1990s, Yeltsin and his colleagues portrayed Russia not as a new nation state but as an heir to its pre-Bolshevik self, borrowing many of its symbols, including its flag. They depicted the Soviet period as an anomaly that had interrupted the course of Russian history. But they could not come up with a clear identity and a destination for the new post-Soviet Russia.

The 1991 revolution had been largely bloodless because the old *nomenklatura* retained its economic and often its political power. (Yeltsin himself was a former Communist Party boss.) It did not and could not bring in a new elite because after 74 years of Soviet rule there was none. And although the oligarchs who in the 1990s took over the commanding heights of the Russian economy and the media had all the appearance of an elite, they lacked any sense of responsibility for their country.

It was partly the failures and in-fighting of that Westernised ruling class that prompted Yeltsin to pick Mr Putin as his successor in 2000. By that time the Russian economy was starting to benefit from the transition to a market economy, complete with

coffee shops and the first IKEA superstore.

Mr Putin was neither a liberal nor a Stalinist. His manifesto, published on the eve of the new millennium, was all about the value to the Russian people of a strong, centralised state. An opinion poll in January 2000 found that 55% of the population expected Mr Putin to return Russia to the status of a great and respected *derzhava*, which most Russians equate with "fear of their country". Only 8% thought he would bring Russia closer to the West. Today half the population reckons that Mr Putin has indeed restored Russia's position as a great power.

Mr Putin took the next logical step: he incorporated the Soviet period into the historical continuum of Russian statehood. Soon after coming to power he ordered the restoration of the Soviet anthem, which had been abolished when the Soviet Union collapsed. New lyrics were set to the music originally composed in 1938, at the height of Stalin's terror. While Russian liberals cringed, most people saw it as a fairly harmless symbolic gesture to placate ageing Communist Party voters. After a decade of freedom under Yeltsin it seemed impossible that Russia would lapse back into Stalinism.

In a press conference in 2004 Mr Putin said: "Despite all the difficulties, we managed to preserve the nucleus of that giant, the Soviet Union. And we called this new country the Russian Federation." He was not interested in its communist ideology or its hopeless central planning system. What mattered to him was the state, which had served the Russian empire and the Soviet Union equally well.

Alexander Yakovlev, the author of Gorbachev's reforms, understood the challenge better than anyone else. In 1985 he had written to Gorbachev: "For a thousand years we have been ruled by people and not by laws... What we are talking about is not the dismantling of Stalinism but a replacement of a 1,000-year old model of statehood." That model was never properly dismantled, and Mr Putin set about restoring it. According to Andrei Illarionov, his adviser until 2005, Mr Putin was haunted by fears of disintegration and saw the 1990s as a period not of freedom and stabilisation but of chaos.

In trying to preserve the nucleus of an old empire, Mr Putin eliminated all alternative power centres. He stopped direct regional elections, standardised legislation across the whole of Russia and appointed his own representatives to the regions. He thus destroyed the principle of federalism, which had kept Russia together and politically stable throughout the economic upheavals of the 1990s. Like many of his predecessors, including Stalin, Mr Putin believed, and still believes, that a country of Russia's size and ethnic complexity can be kept together only by cen-

An opinion poll in 2000 found that 55% of the population expected Mr Putin to return Russia to the status of a great and respected country

tralising economic resources and political power, and that the security services are the best tool for achieving that.

Yet Moscow, St Petersburg and even Kazan are modern European cities. They have little in common with Chechnya, a tyrannical state where elements of *sharia* law have been reintroduced. They also have little in common with Russia's grim, small towns in the hinterland which form the core of Mr Putin's electorate. The only way in which these differences can be peacefully reconciled is through decentralisation and political competition. Rather than being run as a centralised state, Russia would work much better as a federation in which each region can develop in its own way. This idea of Russia as a "united states" was first ►



Stalin regilded

voiced by the Decembrists, a group of aristocratic revolutionaries who led an unsuccessful uprising in 1825.

To head off such notions, Mr Putin needed a unifying narrative about the past. The only one available was the Soviet victory in the second world war, which he presented as an exemplar of state power rather than a triumph of human values achieved by all allies. The sanctification of that victory, and Stalin's role in it, has become the main ideological foundation of Mr Putin's velvet Stalinism, disguised as patriotism—an old mix of Russian Orthodoxy, state nationalism and autocracy.

As a victor in the second world war, Russia was never forced to reject Stalinism in the way that Germany was forced to reject Nazism, even though the two regimes had much in common. In an insult to the millions of Stalin's victims, the Kremlin has recently called Memorial, a long-established human-rights organisation set up to draw attention to the crimes of Stalin's regime, a "foreign agent"—a synonym for "traitor".

"Putinism", writes Mr Gudkov of the Levada Centre, "is a modified version of a repressive and centralised state system which imitates the Soviet style of a totalitarian regime." But for all his faults, Mr Putin is not a bloodthirsty tyrant. Although he has resorted to coercion and selective violence, both at home and abroad, he is neither willing nor able to reproduce the economic foundation of Stalin's regime or impose a reign of terror. His system uses more subtle methods of control and manipulation such as rigging elections, demoralising or co-opting the liberal opposition and, most important, deploying television as a propaganda tool.

Old injuries

The reason Russia's current nationalistic, anti-American propaganda is so much more effective than the Soviet version is that people choose to believe it. It plays to their feelings of jealousy, resentment and victimisation. As Mr Gudkov notes, television propaganda exploits the syndrome of "learned helplessness"—a psychological condition where people who have been repeatedly abused give up control and start believing that "nothing depends on us". Having a mighty enemy, such as America, helps alleviate their feelings of failure and weakness. Russia's

anti-Americanism is based not on any real interaction between the two countries but on Russia's domestic failures. America's perceived aggression allows Mr Putin to present himself as the leader of a country at war.

The extraordinary support for Mr Putin (82%) as a head of state who stands up to this American aggression contrasts starkly with the deep contempt people feel for the power elite generally, whom they see as corrupt, amoral and callous. They applaud the annexation of Crimea but do not want to accept any responsibility for it. Like most other people, Russians on the whole have little interest in the outside world. They care far more about their families and their jobs than they do about foreign adventures. They have no wish to go to war.

Russia's perceived resurgence is not a sign of strength but of deep weakness and insecurity. Its anachronistic state cannot deal with modern challenges, resolve contradictions and injustices or offer any vision of a common future. Russia's regional diversity, its growing inequality and the contrast between the urban middle classes and the paternalistic periphery will remain causes of tension.

As Dominic Lieven, a British historian of the Russian empire, has observed: "For most of Russian history...aggression was the same thing as survival. In the 20th century Tsarist and Soviet Russia smashed itself to pieces by competition first with the Germanic bloc in central Europe and then with Anglo-Americans. The limited recovery of Russian power under Mr Putin cannot hide the fact that Russia is weaker than it has been in the last 300 years."

Mr Putin knows he has a problem and is looking for ways to change the system while retaining personal power and dealing with the problems of elections and legitimacy. He may promote himself as a new national leader, a Russian late-period Deng Xiaoping. That would allow him to combine confrontation with the West with some degree of economic liberalisation (he has recently appointed Sergei Kiriyenko, a liberal of the late 1990s, as his deputy chief of staff). But Russia is not China. And Mr Putin will be aware that, as de Tocqueville said, the most dangerous moment for a bad government is when it begins to reform.

The Russian empire had been overdue for transformation back in 1914, but Tsar Nicholas II's insistence on ruling like a 17th-century absolute monarch made it impossible. In the 1930s Stalin managed to hold the empire together by extreme violence. After the Soviet Union finally expired in 1991, the new regime gave federalism a chance for a decade. But since Mr Putin has been in charge, he has been trying to hold Russia together with the same anachronistic methods that had pushed his country into decline and political upheaval at earlier points in its history. Unless Russia can complete the transformation into a modern nation state that began in 1991, what Mr Putin tries to present as his country's resurgence may in fact be one of the last phases of its decline. ■



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Ukraine's future

Bone of contention

Foreign powers are negotiating over their country, but it is Ukrainians who will have the final say

ON THE morning of October 19th thousands of people in Donetsk, the main city occupied by the Russian-backed separatists of eastern Ukraine's Donbas region, attended the funeral (pictured above) of a notorious warlord assassinated two days earlier. Arsen Pavlov, better known as Motolola, was a Russian irregular who boasted of killing Ukrainian prisoners-of-war and had started to act independently of Moscow. He was the latest of a half-dozen unruly separatist commanders to be eliminated in recent months, according to Nikolay Mitrokhin, a Ukraine expert at the University of Bremen. That evening, the leaders of Russia, Ukraine, France and Germany met in Berlin to discuss the region's stalled peace process, known as Minsk-2.

The two events were both signs that Russia is trying to establish firmer control over the lawless Donbas. Though it has stopped trying to spread the conflict to other parts of Ukraine for now, it still wants to cement Donbas's special status inside Ukraine. As part of Minsk-2, Moscow demands that Ukraine hold a local election in the rebel-held territories. Kiev has refused to do so until shooting stops and international monitors from the Organisation for Security and Co-operation in Europe (OSCE) are given access.

In Berlin, Vladimir Putin suggested he would let the OSCE in. Petro Poroshenko, Ukraine's president, said this would pave

the way for elections. That could create a Moscow-controlled region within Ukraine that could be used to block government reforms and international agreements by the Kiev government and undermine Ukraine's integrity without direct military involvement.

Ukraine is at the centre of Russia's conflict with the West, playing a vital role in Mr Putin's ambition to restore Russia's great-power status. The Kremlin has used the upheaval since Ukraine's revolution of 2014 to cow its own dissidents by demonstrating that rising up against corrupt, authoritarian regimes lead to chaos. The West, meanwhile, wants to show that liberal democracy can succeed in a state that was at the core of the former Soviet empire.

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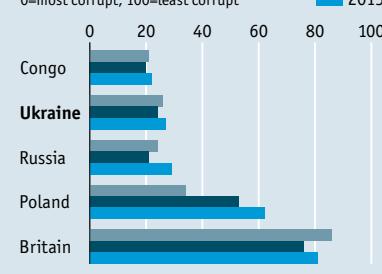
But while Russia and the West fight over Ukraine, it is events inside the country that will determine its destiny. Two years after the Maidan revolution, Ukraine is stuck in a grey zone of half-reforms and half-war. While the country has held together better than many had expected, it has not transformed itself into a modern nation-state. After the revolution, power was seized not by a new political generation but by "those who were the closest to the government chairs when the music stopped," says Yulia Mostovaya, editor of *Zerkalo Nedeli*, a Ukrainian weekly. Young Ukrainians are frustrated by their inability to keep the revolution's promises, but unable to form a political force strong enough to challenge the government.

One reason is the war, which has given the government a cause around which to unite the country without having to reform itself. Television channels are filled with images of the brutal fighting, in which 10,000 people died, and of volunteers carrying food and clothing to Ukrainian soldiers. Yet, as one Ukrainian observer said, the worst thing that could happen to the country now would be for the devastated Donbas region to return to Kiev's control. Ukraine has neither the money nor the state institutions to re-integrate it. But Russia, which started the war, does not want Donbas either.

Western countries discouraged Ukraine from fighting when Russia invaded Crimea, and Mr Poroshenko resists calling the conflict a war. But the war has become big business on both sides of the border. Corruption, in both Ukraine and Russia, is so ubiquitous that it is better described as the capture of the state by oligarchs and vested interests. According to *Zerkalo Nedeli* some 30 defence manufacturers have been transferring state money into fake ►

Not the dirtiest shirt

Corruption-perceptions index
0=most corrupt, 100=least corrupt





► firms as “payment” for non-existent equipment. Some pro-Ukrainian militias, who answer to no one but their own field commanders, are growing impatient with corruption and the lack of reform.

Yet instead of concentrating on fighting large-scale corruption, Ukrainian prosecutors are targeting journalists, activists and pro-European members of parliament. Sergii Leshchenko, an anti-corruption journalist and MP, has been attacked by the prosecutor’s office for acquiring a 7.5m hryvnia (\$292,000) flat in Kiev, bought with a loan from a friend. “The purpose of this campaign is to discredit us, to show that everyone in Ukraine is the same and anyone who fights against corruption is himself corrupt,” says Mustafa Nayem, another pro-European MP.

Some new, clean institutions have been set up with the help of Western donors, such as the National Anti-corruption Bureau of Ukraine (NABU). But they are locked in a struggle with the old guard. The General Prosecutor, Yuri Lutsenko, is trying to limit the powers of NABU and hand over serious corruption cases to other agencies.

Francis Malige of the European Bank for Reconstruction and Development says there has been much progress in the banking and energy sectors. But the key tests, including privatisation of state assets, are still to come. The central bank has yet to deal with the country’s largest bank, PrivatBank, which belongs to Ihor Kolomoisky, one of its richest oligarchs.

As for energy, the intermediaries between Gazprom, Russia’s state natural gas giant, and Naftogaz, its Ukrainian counterpart—a vast source of corruption—are gone. But Rinat Akhmetov, a former supporter of the deposed president, Viktor Yanukovych, is still making a killing on government-regulated schemes in the coal and electricity sector.

As Mikheil Saakashvili, a former president of Georgia and the governor of Odessa region, says, for all the differences between Russia and Ukraine, the elites in the two countries have much in common.

Ukraine’s rock-star politician

Front man

MARIUPOL

A pop star tries to help a country at war reinvent itself

THE crowds in Mariupol, a factory town on the front line in eastern Ukraine, began lining up at six in the morning. It was late spring, and the rock group Okean Elzy were playing. “You might only see them once in your life,” said a young boy in line. Some 30,000 people turned out to see the band and its front man, Svyatoslav Vakarchuk (pictured). “He’s now the voice of the younger generation, the voice of the agents of change,” says Yaroslav Hrytsak, a Ukrainian historian.

Mr Vakarchuk is the son of a physicist from Lviv in western Ukraine, and his most significant recent performance was not a concert but a speech marking his return to the political arena. (He served a one-year stint in parliament between 2007 and 2008.)

Taking a stand against the identity politics that Ukrainian leaders have long used to distract from failed reforms, Mr Vakarchuk articulated a vision of Ukrainian identity for the 21st century. “We need to stop building a state based on blood patriotism, and begin building a state based on constitutional patriotism,” he declared. “We shouldn’t be united by a common past, heritage, blood or appearance, but by a common set of values, lifestyles, rules and a constitution.”

Throughout Ukrainian history, “the main articulators of identity have been writers and poets,” Mr Hrytsak explains. “Most have been very strongly ethnically inclined.” Taras Shevchenko, whose poetry helped codify the modern Ukrainian language in the mid-1800s, propounded an ethnic nationalism that divided Ukraine from its imperial Russian masters. “Fall in love, you dark-browed girls, but not with Moskali,” he warns in “Kateryna”, using a Ukrainian slur for Russians. “For Moskali are strangers / They will do you wrong.”

For post-Maidan Ukraine, Mr Vakarchuk wants to replace this ethnic nationalism with a more civic sort, to overcome the regional divisions that

“Ukraine has to build up a critical mass of reformers,” he says. The EBRD and the EU have launched a programme to reform public administration, hiring dozens of young Ukrainians to create new layers of civil servants in four key ministries.

But this will take years. What Ukraine needs most is a leader with vision and political will. In the words of Ms Mostovaya, Mr Poroshenko is like a “rusty and infected

nail that holds things in place”. Pulling him out now would be dangerous, but he is hardly the man with whom to build the future. Mr Putin may hope that the combination of keeping Donbas inside Ukraine, growing disillusionment with the Maidan revolution and the radicalisation of some Ukrainian militias will be enough to cause the country to explode. It is up to Ukraine to prove that he is wrong. ■

Many of Mr Vakarchuk’s fans, longing for an inspiring leader, hope that he will return to politics. President Petro Poroshenko’s administration has already commissioned polls on him, preparing for his appearance as a potential rival, reports *Ukrainskaya Pravda*, a news site. But Mr Vakarchuk insists he can accomplish more with his music. As he sings in “Not Your War”, a new hit released last year: “A battle at dawn, sun and smoke / Few know what will become of it / What will fill tomorrow’s young minds / For some there is hope, for others fear.”



Unacknowledged legislator

nail that holds things in place”. Pulling him out now would be dangerous, but he is hardly the man with whom to build the future. Mr Putin may hope that the combination of keeping Donbas inside Ukraine, growing disillusionment with the Maidan revolution and the radicalisation of some Ukrainian militias will be enough to cause the country to explode. It is up to Ukraine to prove that he is wrong. ■

Russia's Bashneft deal

Easy sale

MOSCOW

One state-owned company buys another, and the state books a profit

WHEN Russia's government floated the idea that its supposedly ambitious privatisation plans should include selling Bashneft, a state-controlled oil firm, to Rosneft, another state-controlled oil firm, many officials were opposed. One presidential adviser called it "idiocy". Even President Vladimir Putin said it was "not the best option". But Igor Sechin, the head of Rosneft, is a persuasive man. On October 9th the government announced that Rosneft's 330 billion rouble (\$5.3 billion) bid had been accepted.

The main imperative was the government's urgent need for money. The quasi-privatisation "helps them to resolve the budget problem, but doesn't reduce the role of the state in the economy," says Oleg Kouzmin of Renaissance Capital, an investment bank. Rosneft's offer was above the value an independent analyst had put on the company. Leonid Fedun, vice-president of Lukoil, Russia's largest remaining privately held oil firm, said his company could not have matched such a high bid, but for a state-owned company like Rosneft that is too big to fail, "it doesn't matter how much they pay."

Rosneft falls under Western sanctions on Russia, which restrict its access to financing. But it has \$22 billion on hand and says it will not have to borrow for the deal. (Much of the cash comes from Chinese pre-payments on a 25-year oil deal signed in 2013.) Rosneft was already Russia's largest oil company, having absorbed assets from two former competitors, Yukos in 2004 and TNK-BP in 2013.

Critics contend that the move simply shifts money from one state pocket to another. While the proceeds from the sale will allow the government to claim a smaller budget deficit, they ultimately come out of the assets of Rosneft, a mostly state-owned company. Some analysts think the merger involves synergies that will increase Rosneft's value, though by how much is unclear. In any case, such accounting tricks will not improve the long-term health of Russia's economy, still sputtering under the pressure of Western sanctions and depressed oil prices. Nor will the decision help attract investment into a country where, by the measure of Russia's own Federal Anti-Monopoly Service, the share of GDP controlled by the government and state-owned firms has risen from 35% in 2005 to 70% in 2015.

Bashneft's fate had as much to do with

politics as with budget maths. "It's a story of the relations between clans around Putin," says Konstantin Simonov, director of the National Energy Security Fund, a think-tank. From 2009-2014, Bashneft belonged to Vladimir Yevtushenkov, a Kremlin-friendly oligarch. After Mr Yevtushenkov rejected Mr Sechin's overtures to buy Bashneft, he found himself under house arrest and his company seized by the state. Many in Moscow believe this was orchestrated by Mr Sechin, a security-services veteran and close ally of Mr Putin. He has denied any involvement.

Mr Yevtushenkov was later released, but the jockeying for Bashneft continued after it appeared on a list of assets up for privatisation earlier this year. Allowing Rosneft to buy Bashneft, Mr Simonov says, is an "open slap in the face" to the government's more liberal economic advisers, who sought to prevent the sale.

Next on the "privatisation" chopping block is a 19.5% stake in Rosneft worth some \$1 billion. The state owns nearly 70% of Rosneft's shares; the rest are held privately, including a 20% stake belonging to British Petroleum. While Western investors have stayed away because of sanctions, the company has attracted interest from Asian and Arab investors. Wang Yilin, CEO of the China National Petroleum Corporation, said in an interview with a Russian television network that his company would be interested—but only if it meant influence over Rosneft's management, something Russia is loth to allow. In lieu of other suitors, the government may turn again to a familiar customer: Rosneft itself. Mr Putin says that the government has already approved the unorthodox plan, calling it an intermediate step before real privatisation. "We're not planning to build state capitalism," he insists. One might be forgiven for thinking otherwise. ■



Pumping up the price



Italy's Five Star Movement

Requiem for a dreamer

ROME

The late Dario Fo's political darlings are closer than ever to power

THE funeral in Milan on October 15th of Dario Fo, Italy's irrepressibly subversive Nobel laureate for literature (see page 78), may have seemed like a commemoration of the old, Marxist left. On the rain-sodden Piazza del Duomo, clenched fists were raised, a Che Guevara banner unfurled and the great jester dispatched to his grave with a rendering of "Bella Ciao", the anthem of Italy's partisans in the second world war.

Yet the best-known mourners were not Marxists at all. They included the founder of the Five Star Movement (M5S), Beppe Grillo (pictured); the mayor of Rome, Virginia Raggi; and other leading figures in what has become Italy's main opposition group. Late in life, Mr Fo transferred his enthusiasm from the radical left to the M5S. He even wrote a book with Mr Grillo and the party's co-founder, the late Gianroberto Casaleggio, explaining its ideas. These include attacking corruption in Italy's mainstream parties, transcending the conventional distinction between right and left, and replacing representative democracy with a system of direct, Athenian-style rule by the people.

Unabashedly populist and Utopian, the M5S can also be sternly pragmatic. For example, Ms Raggi has abandoned cash-strapped Rome's bid for the 2024 Olympics. But M5S is often disconcertingly eccentric. Mr Casaleggio's bequest to his followers was a video predicting that robots ►

► with artificial intelligence would soon exterminate the human race.

True to its beliefs, the M5S chooses its electoral candidates in online ballots. Save in municipal elections, it does not accept anyone who has served more than a term as a political representative of any sort. The intention is to guarantee that its lawmakers and office-holders are free of the compromising links that are rife in Italian politics. But one effect is to ensure they are equally untainted by experience and, sometimes, ability.

As Italy prepares for a referendum on December 4th that could open the door to an eventual M5S government, the issue of the party's competence is becoming pressing. Polls show voters evenly split between supporters and opponents of a government-sponsored constitutional reform. The prime minister, Matteo Renzi, has vowed to resign if the reform is rejected. That would not automatically lead to the M5S taking power, but Mr Grillo's movement is the obvious beneficiary of the instability that would follow.

Its record in office is not reassuring. Since her election in June, the M5S mayor of Turin, Chiara Appendino, has made a solid enough start. But her counterpart in Rome, Ms Raggi, has lurched from one crisis or controversy to another. It took her three months to form an administration, and the all-important job of overseeing the budget eventually went to her fourth choice, after her first three picks either refused or resigned.

It is probably too early to pass judgment on either woman. Ms Appendino inherited a city competently administered by the outgoing mayor; Ms Raggi took over one deep in debt, racked by scandal and notorious for cronyism.

More conclusive is the movement's experience in the northern city of Parma. In 2012 Federico Pizzarotti was elected mayor there, giving the M5S its first big electoral success. Earlier this month, he resigned from the movement, ending a turbulent association with its leaders. Relations began to fray after he rowed back on a campaign pledge to close the city's waste incinerator, saying it was too expensive to do so.

"Once inside the institutions, [M5S office-holders] realise how they work and then have the difficult job of telling the rest of the party that what they promised can't be done," says Maria Elisabetta Lanzone, a political scientist at the University of Genoa and author of a book on the party.

The movement's recent setbacks have eroded its popularity. Yet on average, the polls still put it within four percentage points of the governing Democratic Party. For many voters, experience and competence are less important at the moment than honesty and idealism. As Mr Fo knew, Utopian dreams go down very well with audiences. ■

The Canada-EU trade deal

Hot-air Walloons

A tiny region of Belgium is blocking an EU-wide trade deal

HEY Canada, fuck you." Within hours this tweet (the result of a hack) from the Belgian foreign minister's account was replaced with a friendlier message: "keep calm and love Canada". Yet his country's actions are closer to the original. On October 14th the regional parliament of Wallonia voted to block the Comprehensive Economic and Trade Agreement (CETA), a trade deal between the European Union and Canada.

Twentieth-century trade deals slashed tariffs. Newer ones between rich countries, such as CETA, focus on cutting other barriers to trade. After seven years of haggling, European negotiators dream of European toys and electrical products being sold straight to Canadians, without having to go through a second round of health and safety checks.

Coordinating standards with another country inevitably means surrendering a little sovereignty. This riles many Europeans, who worry that CETA will dilute environmental standards and labour laws; they suspect that new courts established by the treaty to settle investor disputes with governments will favour corporations over regulators.

But plans for such courts have already been reformed, notes Marietje Schaake, a liberal Dutch MEP. The latest proposals make them more independent and transparent. On October 18th Cecilia Malmstrom, the EU's trade commissioner, wearily offered to add a "plain language" declaration to clarify the deal.

CETA has other more traditional

detractors who hate the fact that it also hacks away at 99% of customs duties between Canada and the EU. Wallonia boasts one cow for every three humans and its lavishly subsidised farmers are wary of cheap Canadian competition. Erwin Schöpges, a Walloon dairy farmer who joined the protests outside parliament, says he already faces milk prices below his production costs. "We want to trade with Canada, but we would rather not abolish tariffs," he says.

In any trade deal there are winners and losers: the former, more numerous; the latter, more passionate. The Belgian government may buy off its farmers, but even so more hurdles await. CETA must be ratified by 38 regional and national EU parliaments before it can be implemented fully. Mr Schöpges says the protest in Wallonia was less lively than the one he attended in Hamburg a few weeks earlier; opposition in Germany and France could just as easily derail proceedings.

CETA would make Europe €5.8 billion a year richer, by one estimate. But the real danger of letting Wallonia derail it is the precedent it would set. With so many potential vetoes, says Chad Bown of the Peterson Institute for International Economics, it is hard to imagine the Transatlantic Trade and Investment Partnership (a much bigger deal between America and the EU) being passed. And as for Britain's prospects after Brexit, Ms Malmstrom says: "if we can't make (a deal) with Canada, I'm not sure we can make (one) with the UK."



Bravely resisting the Canadian menace



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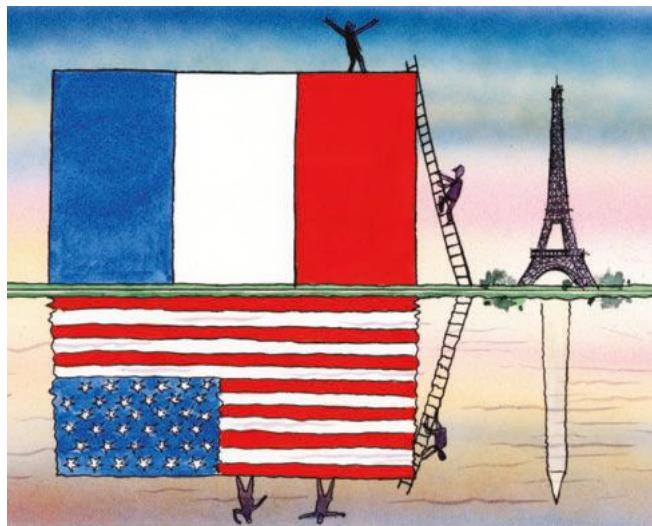
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Charlemagne | Couleurs primaires

France's hopes that primaries would produce a Barack Obama are not panning out



WEEK after week, Europeans turn their gaze to the American presidential election with consternation and bewilderment. How is it that the world's second-biggest democracy, with its orderly primary system, comes up with a candidate like Donald Trump? The sense of *stupeur* is perhaps most acute for the French, whose presidential system resembles America's more than it does Europe's parliamentary democracies. For the first time ever, both of the two main French political parties—the Socialists and the centre-right Republicans—are about to stage American-style primaries to select candidates for next spring's presidential election. French parties used to pick candidates based on a mysterious alchemy of deal-making, seniority and clout. The advent of primaries is altering campaign politics, but not in the way that was expected.

Donald se Trompe

The immediate concern in France is not that the primaries will yield a Trump *à la française*. The country already has one of those in Marine Le Pen, leader of the National Front (FN), who firmly occupies the role of the populist, nativist outsider. Though she has yet to stage a campaign rally, she is on top of the polls for the election's first round. Her France-first, close-the-borders politics are in tune with the continent-wide nationalist trend. Unless opinion shifts radically, Ms Le Pen is set to repeat in April 2017 the shock her father, Jean-Marie Le Pen, caused in April 2002, by securing one of the two places in the presidential run-off. With Ms Le Pen looking a sure bet in the first round, France's primaries are becoming a contest over who can beat her in the second. This makes the experimental process hugely important.

As an exercise in popular participation, the French experience so far has been positive. When the Socialist Party first introduced a primary open to all supporters in 2011, nearly 3m took part—seven times the number of voters in Britain's Labour Party leadership election in 2015. For their primary on November 20th and 27th, France's Republicans have followed suit. Any voter who turns up, pays €2 (\$2.20), and endorses the "values of the right and the centre" and a "change of power" can take part. When the seven Republican candidates lined up in a brightly lit studio for the first televised debate last week, a stunning 5.6m viewers

tuned in—as many as watch the trashy French reality-TV shows that usually air in that time-slot. The party may well match the Socialists' turn-out. It will be difficult for losers to cry foul.

Yet the original purpose was not only to model the American system's virtues of transparency and openness: it was also to encourage fresh political talent. French parties used to stitch up candidates behind closed doors, or restrict voting to card-carrying members. It was time, argued a report in 2008 by Terra Nova, a think-tank close to the Socialist Party, for a system that could enable a "Barack Obama *français*" to emerge. On this count, the record is rather less compelling. In 2011 the primary winner was François Hollande, a hack who had formerly led the party for 11 years. The Republicans are now busy doing their own recycling. Only one candidate, Nathalie Kosciusko-Morizet, is a woman. Another, Bruno Le Maire, tried to look hip by not wearing a tie. Among the rest are a former president, Nicolas Sarkozy, and two former prime ministers, Alain Juppé and François Fillon. When the front-runner, Mr Juppé, and Mr Sarkozy first went into politics, in the mid-1970s, Mr Obama was still in high school.

If there is a novelty, it lies partly in the crushing of old hierarchies. The sight of Mr Sarkozy stripped of the pomp of high office, just one TV-debate contestant among many, was a tribute to the democratic process. Should the unpopular Mr Hollande seek re-election, he will have to venture outside the ornate Elysée Palace to campaign against his (many) Socialist critics in a primary in January. Perhaps the most unforeseen change, though, is the way the primaries are polarising debate within parties. The tensions are not new, but a primary makes them cruelly visible.

The first Republican debate was mostly measured and wonkish. Mr Sarkozy controlled his finger-jabbing. Mr Juppé acted ponderous and professorial. A full hour was devoted to fiscal policy, welfare rules and public finances. Yet the campaign has also been vicious at times. Mr Juppé, who was convicted of political corruption in 2004 and struck off the electoral register for a year, snapped that it was "better to have been in the dock in the past than in the future". That was a jab at Mr Sarkozy, who is under investigation for alleged breaches of campaign-finance rules. Mr Sarkozy called Mr Juppé "odourless, colourless and flavourless". Mr Sarkozy, chasing the FN vote, would ban the Muslim veil from universities and the burkini from beaches. Mr Juppé, who seeks a "happy identity" for France and urges the left to vote in the primary, warns against stoking a "war of religion".

France's encounter with primary politics is still in its early days. In some ways the idea runs counter to the spirit of the Fifth Republic. Charles de Gaulle introduced the directly elected presidency in 1962 in order to take power away from political parties, which he blamed for the "disastrous" manoeuvrings of the Fourth Republic. A president elected directly by the people would—like *le général*—embody the nation, and rise above the grubby business of party politics. Primaries, by contrast, seem to strengthen the party filter.

Yet in another sense, they may weaken it. The parties' internal divisions on some issues—counter-terrorism, religious expression—are as great as those between them. Primaries lay this bare, and could in time reorder the political map. That is what Emmanuel Macron, Mr Hollande's former economy minister, is gambling on. Rather than running in the Socialist primary, he is contemplating an independent candidacy, hoping to draw support from left and right. If it works, it may be because the primaries intended to revitalise France's parties have instead split them apart. ■



Social mobility

A class apart

Improving social mobility will mean allowing rich children to move down as well as helping poor ones to move up. Does the government have the stomach for it?

THERE is little doubt about which subject will define Theresa May's government. But the prime minister has made clear that during whatever time is not gobbled up by Brexit negotiations she wants to turn Britain into "a country that works for everyone". Such talk is hardly new. In 1990 John Major spoke of his desire to forge "a genuinely classless society". Every prime minister since has made similar noises. Yet few have placed as much emphasis on social mobility as Mrs May.

This focus is inspired by the fact that, by many measures, Britain is not a socially mobile place (see chart). Many also sense that things have taken a turn for the worse. Like most rich countries, after the second world war Britain saw a big increase in the number of well paid, white-collar jobs. The proportion of people born to parents in professional or managerial jobs tripled between the generation of 1946 and the one born in 1980-84. Poor children won places in the civil service or the City of London, earning far more than their parents. But as the creation of professional jobs slowed, the scope for children to make dramatic leaps up the social pecking-order narrowed. In this sense the Britain of today is a less upwardly-mobile place than that of Mrs May's youth.

The overall picture is more complicated. Mobility is measured not only in absolute terms—that is, how well people fare compared with their parents—but also in

relative terms, meaning how well they do compared with their peers. By this definition, the change has been somewhat less dramatic. Among men born in the poorest income quartile in 1958, 31% remained there as adults. Among the generation born in 1970, the figure crept up to 38%. Academics who study mobility based not on income but on social class—normally defined by occupation type—detect even less change. By their reckoning, mobility has changed little during the past century (although women became a bit more mobile, probably reflecting better access to education and work). Most see little prospect of an increase in mobility in years to come.

But not all are so gloomy. The gap in exam performance between rich and poor

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children is falling, notes Jo Blanden of Surrey University. In 2005 30% of children eligible for free school meals got five good grades at GCSE, the exams taken at 16, compared with 59% of others. By 2013 that 29 percentage-point gap had shrunk to 16 points. There has been a similar narrowing of the difference in university participation rates and performance in SATs, the exams taken at 11. Since studies suggest that more than half of the link between parental and child income develops as a result of what happens in the classroom, the convergence of rich and poor pupils' exam results bodes well for social mobility.

What goes up...

Yet the slowing down of the economy from its post-war clip means that the increase in well qualified youngsters has no corresponding increase in good jobs. In the past, there was plenty of room at the top. Now, it is painfully clear that social mobility must mean people going down as well as up.

Well-off parents have many weapons with which to defend their children from this fate. The bluntest is by passing on wealth. Last year the government announced plans to shield inheritances of up to £1m (\$1.2m) from tax. And money helps youngsters to maintain an educational edge. In 1996 just 4% of Britain's workforce had postgraduate qualifications; today 11% do. The relative scarcity of funding for post-graduate study means postgrad qualifications are more open to wealthy students. Moreover, the graduate wage premium is highest for those at the most prestigious universities, where the gap between rich and poor pupils has remained wide.

Access to good jobs is increasingly gained through internships, often unpaid and given out informally. The government has shown limited interest in enforcing the minimum wage in this area (indeed, two ➤

Family silver

Wage premium of those with well educated parents compared with poorly educated parents, 2012-13 %



► years ago Mrs May's Conservative Party wrote to its MPs with advice on diplomatic ways to advertise unpaid internships. Thus, even among children with identical educational qualifications, the privately schooled are more likely to get the best jobs and to take home fatter pay-cheques, according to a study in 2014 by academics at the UCL Institute of Education and Cambridge University.

Chipping away at these privileges will not be easy. But in an era of limited growth, improving social mobility is as much about dismantling the barriers that keep wealthy children at the top as it is about pulling poor children up from the bottom. Promising to increase social mobility has long been a popular pledge. It may become a more controversial one when voters realise that mobility goes in two directions. ■

Inflation

Only the beginning

The fall in the pound begins to eat into living standards

FOR the 354 years for which there are data, Britain's average annual inflation rate has been about 2%. So the news that inflation rose to 1% in September, up from 0.6% in August, may not seem significant. But it is bad news: there is a lot more inflation to come, and the big losers from rising prices will be the poor.

The obvious culprit for rising prices is the 15% drop in sterling since June. Britain imports nearly all of its clothes, and month-on-month inflation in clothing now exceeds 5%. However, elsewhere sterling's decline has not yet been felt. Currency-hedging by wholesalers stops prices from rising immediately. Retailers pressurise suppliers not to raise prices, as demonstrated by a recent spat over the price of Marmite, a yeasty spread. The overall price of food did not budge in September (the average price of a jar of Marmite actually fell, as shops cut prices to lure customers).

Despite pricier clothes, inflation's rise was caused largely by factors unrelated to sterling. It was already trending upwards from a low of -0.1% last October. In 2014-15 there were sharp drops in energy prices, which have fallen out of the year-on-year comparison used to calculate the rate.

Sterling's slide will eventually make itself felt, however. Consumer-price inflation is likely to hit 3% in 2017. Though that is higher than the Bank of England's 2% target, the bank is loth to raise interest rates lest it tip the economy into recession. Holding off is the right move, though a controversial one. Theresa May, the prime minis-

Politics

Theresa's way

The new government's fault-lines point to two big shifts on Whitehall

WHEN Theresa May arrived in 10 Downing Street in July, after six years as home secretary, her watchword was competence. She would bring Home Office control and discipline to the post-Brexit chaos. Yet three months on her government seems remarkably leaky and fractious. On October 16th she ruled that collective cabinet responsibility would be suspended in a delayed vote on the expansion of Heathrow airport, to allow dissenters like Boris Johnson, the foreign secretary, to demur.

Heathrow is just one case. Even Justine Greening, the education secretary, is uncomfortable about the prime minister's enthusiasm for selective state schools. And Downing Street has repeatedly backed away from Mr Johnson's statements: from the case for a new royal yacht to that for expanding military intervention in Syria. Then there is Brexit. Philip Hammond, the chancellor, is emerging as the loudest voice for a pro-market, liberal sort of deal. Related battles over immigration rend the cabinet.

Where has Mrs May's iron fist gone? The first explanation is her governing style. Concentric circles radiated out from David Cameron when he was prime minister: first the "sofa" government, then the most loyal ministers, then the cabinet outsiders. Under Mrs May things are different. She has allies (like Mr Hammond) but no diehard gang. Instead of rule by clique, she prefers the cabinet and its subcommittees. These now meet without the prime minister having fixed the outcome with a few pals beforehand. Insiders claim this makes for more sincere discussions. But it also means more splits and leaks.

The second factor is Mrs May's broader project: noting a troubled Labour Party

to her left and a troubled UK Independence Party to her right, she wants to colonise new ground on both sides. The advantage of this strategy is its electoral virility: an Ipsos MORI poll published on October 19th put her party on 47%, higher than the Tory vote share in any election since 1959. The disadvantage is that this broad coalition contains multitudes—from rich to poor, cosmopolitan to nativist, libertarian to paternalist—and Mrs May lacks the parliamentary strength to ride out the contradictions (she inherited a majority of just 16 seats).

For this reason it is hard to believe her aides when they insist she has not contemplated calling an early election. On the current polls, the Conservatives would increase their majority to over 100. That would create space for all the cabinet and parliamentary battles Mrs May's sprawling and often contradictory politics demands. Britain's other parties should assume an election footing.



Cabinet of curiosities

ter, has expressed reservations about loose monetary policy. And MPs are more willing than in the past to challenge the Bank of England's independence. Addressing Mark Carney, the bank's governor, David Davies, a Tory backbencher, tweeted that Mrs May "has got every right to tell you how to do your job!"

Politicians should know better than to interfere with the bank's decision-making. Nonetheless, rising inflation does have its costs. Real weekly pay is already about 4% lower than in 2007. Nominal wage growth is just 2%. Once inflation goes above this rate, real wages will fall.

Rising inflation may be particularly da-

maging to the poor. They devote a large proportion of their income to food and energy, which are greatly affected by the value of sterling, whereas the rich spend more on services, which are not.

Welfare recipients will also suffer from high inflation, according to the Institute for Fiscal Studies, a think-tank. Usually, benefits rise in line with prices. No longer: last year, most working-age benefits were frozen in cash terms until 2020. Relative to previous plans, about 12m families are expected to lose an average of £360 (\$442) a year in real terms thanks to the jump in inflation. The relatively poor folk who tended to vote Leave will suffer most. ■

Bagehot | The spectre of Scoxit

Do not rule out Scotland's departure from the United Kingdom



AS INVITATIONS for haughty English scoffing go, Nicola Sturgeon's opening speech at the Scottish National Party conference was irresistible. In the SNP manifesto for the Scottish Parliament elections in May, she had committed to a new independence referendum in the event of a Brexit without Scottish consent. Assembling in the lee of Scotland's 62% vote against leaving the EU (outweighed by England's 53% vote in favour), her members in Glasgow knew the score, studding themselves with stickers and badges reading "Yes2" (nationalist-speak for a new plebiscite), cheering a French delegate who praised the party's Europeanism and experiencing paroxysms of delight when Ms Sturgeon announced that she would consult on a new referendum bill. But was that a note of hesitancy in her voice? A hint of trepidation on those thin lips and arched brows, as she took in the applause? Why, yes it was.

Ms Sturgeon is in a bind. Many in her party, including Alex Salmond, her predecessor, are demanding a new referendum now, and no messing about. But, despite Scotland's resounding vote against Brexit, and an initial post-referendum bounce in support for independence, opinion polls now put support for a "Scoxit" from the United Kingdom at or below the 45% achieved when the question was formally put in 2014. That is hardly surprising. An un-Brexit, independent Scotland would probably have a hard, costly border with England; the sort which threatens to complicate relations between Northern Ireland and the Republic. Then there is the 97% fall in North Sea oil incomes in the past year, which would force a huge rise in tax after independence. Were it held today, a referendum would probably be lost.

So the first minister hedged, backing a new Scoxit vote before 2019 in a tortuous sentence that ended with the rider: "...if that is necessary to protect our country's interests." One for the lawyers, that. Then, to more muted cheers, came a weird formulation about being urged both to hurry up with, and hold off, the referendum by different people. What a huckster, Bagehot thought. She doesn't want a doomed vote but is stringing the members along. She is merely after a new dose of devolution within the United Kingdom. She is bluffing. The union is safe.

But this sort of thinking grows cracks when one starts to interrogate the steps needed for Scoxit. Take the referendum. Ms Stur-

geon's only proximate chance of losing power is if her own party turns against her. Apart from the punchy Ruth Davidson, leader of the rising but still marginal Scottish Tories, she faces little external opposition. The SNP holds 54 of Scotland's 59 seats in Westminster and over half the seats in the Scottish Parliament, the next election to which is not until 2021. The first minister is not without her critics inside the party, hyper-centralised and stage-managed though it is. So if the yellow-lanyarded troops really want a new vote, she will eventually have to produce it. Publishing the draft referendum bill will only stoke their appetite.

Moreover, Ms Sturgeon does not just ride her party's frustration at the Scottish referendum result in 2014 and the English vote for Brexit this year: she shares it. According to David Torrance, her biographer, the old SNP slogan "Independence in Europe" is something like her "personal manifesto". And although Whitehall technically has the final say on whether a new referendum goes ahead, the Scottish government can point to the commitment in its May electoral programme, endorsed by an unprecedented 47% of Scots, as a mandate to hold one now. So it is entirely possible that Ms Sturgeon will make good on her threat in the probable event of a hard Brexit.

And what if she does? Once Yes2 is triggered, anything could happen. As Mr Salmond likes to brag, he pushed the referendum button when just 27% of Scots supported quitting the United Kingdom, but on the day almost half of them backed it. Brexit could yet transform the independence debates of 2014 into something new, different and dangerous for the union.

Newly sprung in June

Consider the basic dynamic of the referendum in 2014: the nationalists had emotion and the thrill of the gamble on their side, while the unionists had reason and numbers. Reason won. But now that picture is blurred. Is it riskier to stay in a Britain without the EU, or an EU without Britain? With the pound sinking, is joining the euro as horrifying a prospect as it was two years back? And with wide-eyed Brexiteers in Whitehall making all sorts of dubious claims about the benefits and ease of leaving the EU, the gap between unionist sense and nationalist emotion is closing. This could tilt the allegiances of the sort of middle-class voters who strongly opposed both independence and Brexit: say, the Edinburgh professional working in finance and now worried about the effects of leaving the single market.

The heart of the SNP argument in 2014 was the claim that a Tory-led government in Westminster with little support north of Hadrian's Wall was fundamentally at odds with a more left-leaning, liberal Scotland. This was a gross exaggeration, but Ms Sturgeon could not have scripted a better illustration than the Brexit vote and its aftermath: a mean, isolationist England (where the political mood is increasingly nasty) dragging out a Scotland where every single local authority area voted to stay. Brexiteer exuberance south of the border could make the SNP's own nationalist excesses look more reasonable. A Britain flouncing blithely out of the EU with little regard for jobs, investment or liberal values is a workable case for Scoxit.

It remains in Scotland's interests to stay in the United Kingdom. Yet it is also true that the two largest parts of Britain's union are growing apart. Brexit is both a symptom and a catalyst of that process, lending nationalism momentum and allowing unionists no room for complacency. They underestimate Ms Sturgeon at their peril. ■



Migration to Europe

Travelling in hope

AGADEZ AND ON A BOAT IN THE MEDITERRANEAN

The flow of Africans from Libya to Italy is now Europe's worst migration crisis

BEFORE dawn the *Dignity 1* has completed her first rescue, scooping 114 migrants without lifejackets from a rubber dinghy adrift in the Mediterranean. The crew, who include a doctor and two nurses from Médecins Sans Frontières (MSF), the charity that operates the boat, check the arrivals to see who needs immediate care. No sooner have they finished than the ship is called to assist the *Samuel Beckett*, an Irish military vessel also engaged in search-and-rescue. Several migrants she has picked up need urgent medical help: they have chemical burns from fuel leaking in their sinking boat. In the evening the Italian coastguard brings 196 more people on board. By midnight the *Dignity 1* is carrying 417 migrants. Cordoned off at her prow is the body of Joy, a 23-year-old Nigerian who had been six months pregnant. She died of a heart attack after getting petrol in her lungs.

Some people the boat picks up have fled persecution. Hassan, a 14-year-old Somali picked up the previous day (see picture above), is escaping civil war. It has taken him five months to get this far, three of them in Libya, sleeping in animal coops.

Kaifa, a 20-year-old from Liberia, travelled through Guinea, Mali, Burkina Faso, Niger and Libya; he says he was arrested for taking part in a peaceful protest in his home country. Many have suffered terribly en route. Aruna, a 21-year-old from Sierra Leone, has a broken hand from the smugglers' beatings, and marks on his back from their whips. A Nigerian woman is keening: her two children were lost overboard before rescue arrived.

But most are seeking a job of some kind, often to support families back home. Although they speak of escaping poverty, most will have had to scrape together large sums to pay for their journeys, often by getting relatives to chip in. Others will pay after arriving in Europe, perhaps by working as prostitutes, though they may not realise that that is what is in store for them. The journey has often been embarked on without much planning, and with little idea of what lies at its end.

Mette, a pregnant 20-year-old from the Ivory Coast, ran away from her violent husband on impulse when he left the door on the latch. She has seen and suffered "many things in the world", she says

through tears, and declares she will take any job to support her child. The medics flag her up for referral to a psychologist once she lands in Italy. Smart, a 27-year-old Nigerian, fell out with his half-brother, who wanted to kill him. He told a man whose car he washed, who in turn put him in touch with people-smugglers. Soon Smart was travelling to Libya in a series of cars. Bashir, a 17-year-old from Somalia, is one of the few with any idea of where he would like to end up: Geneva, because he has heard that many NGOs are based there. "Maybe they can assist me," he says.

Daring to dream

Migrants have been making their way on boats to Europe for more than a decade. But in the past few years their numbers have soared. Last year over a million crossed the Mediterranean. By far the largest share—around 850,000—travelled from Turkey to Greece, most of them Syrians fleeing their country's bloody war. The sudden influx brought Europe's asylum system to the brink of collapse.

A lasting solution will require peace in Syria, which seems as distant as ever. But in the meantime it has proved possible to reduce the flow. In March the EU struck a deal with Recep Tayyip Erdogan, Turkey's president, to take back any Syrians who made it as far as Greece. Although very few have yet been returned, arrivals fell from 55,000 in February to 3,000 in August, as fewer

► Syrians attempted the journey.

Now the longer and more perilous central Mediterranean crossing, from Libya to Italy, has once again become the main migrant route to Europe. The influx has grown markedly in recent years—150,000 last year, up from 64,000 in 2011. This is still smaller than the peak flow on the Turkey-Greece route, but it poses an even more troubling conundrum. The influx is almost impossible to stem. It originates in dozens of countries, and moves via shifting networks of people-smugglers. Most of those who make it to Europe will eventually be judged economic migrants, not refugees. But Libya, without a government since 2011, is so lawless that they cannot be sent back there. Nor is it always possible to send them home, as their governments often refuse to accept them. Most end up staying in Europe despite being denied asylum.

Italy's sluggish legal system drags out the time spent in limbo. In a state-funded house for migrants in Catania, Sicily, Josef, a young Gambian who arrived in Italy in 2014, says he has been denied asylum but has appealed. Many in his situation enter the shadow economy. In Palermo, Sicily's capital, many migrants live in Ballarò, a shady part of town where drug-dealing is rife. Some end up working as prostitutes.

When Muammar Qaddafi ruled Libya, Italy struck deals with him so that its navy could return migrants who had attempted the trip. But after his death in 2011 the bargain broke down, and in 2012 the European Court of Human Rights declared that these "push-backs" to Libya breached human-rights law.

Since then the EU has responded to one crisis after another, rather than settling on a consistent plan. In 2013 the Italian government started Operation Mare Nostrum,

a search-and-rescue effort that plucked 150,000 people from the seas in a single year. After other European countries, notably Britain, argued that saving migrants inspired more of them to attempt the trip, it was replaced with a scaled-down version, closer to the Italian coast. But the number attempting the crossing fell only slightly, and the number of deaths increased.

Next, the EU took aim at the smugglers. In May 2015 it launched Operation Sophia, with patrolling warships seeking to destroy suspected smuggling vessels close to the Libyan coast. Though they often get involved in rescues, the effect has been to make the route riskier without much reducing the number trying it. This year 3,173 migrants are known to have died or gone missing in the central Mediterranean, up from 2,794 in 2015 (the real numbers will be higher).

Once one group of people-smugglers has been identified and arrested another will pop up, says Calogera Ferrara, an Italian prosecutor in Palermo. And their methods also shift in response to changing policies. As their wooden boats have been destroyed, they have switched to flimsy rubber dinghies, which are hard to spot on the horizon and carry barely enough fuel to reach international waters, where the migrants on board have a chance of being picked up. One of the men rescued by Dignity 1 says that the smugglers gave him a satellite phone with which to call the Italian coastguard, and told him to throw it overboard afterwards so it could not be traced back to them.

The routes African migrants take to reach the Libyan coast form a web across the continent (see map) along which are strung safe houses, brokers and drivers, loosely linked by personal connections.



A rare moment of calm

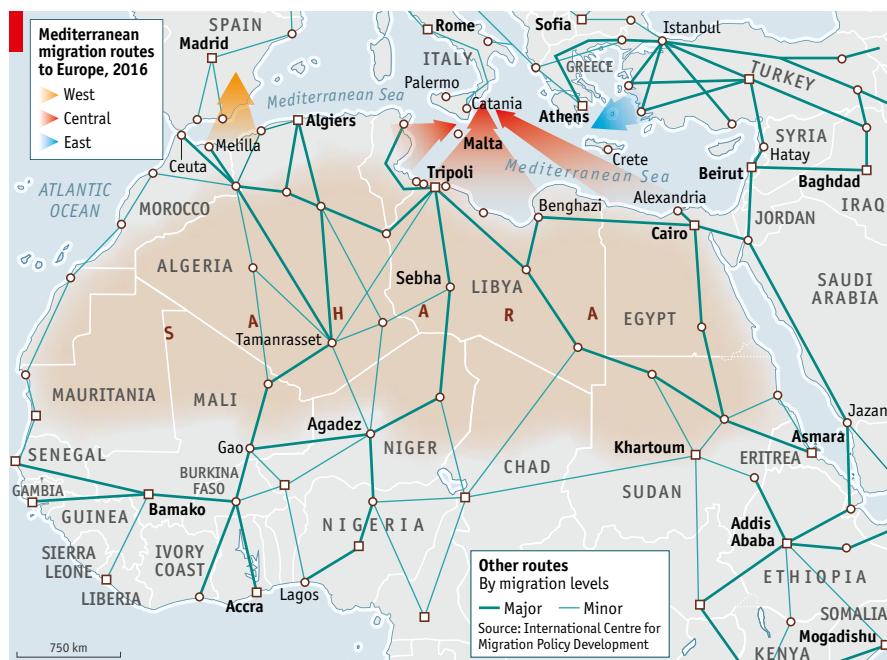
Many pass through Agadez in northern Niger, the last settlement before the Sahara desert. A dusty city of 120,000 souls, it was founded a millennium ago for caravans of camels carrying salt and gold to west Africa. Now its trade is in people.

According to the International Organisation for Migration (IOM), which monitors checkpoints, some 270,000 people passed through Agadez on their way towards Libya between February and the end of September this year. Some were locals, crossing for short spells of work, despite Libya's civil war. But most were young men originating from the west African coast who do not plan to return home.

These migrants will often spend time in safe houses, which the residents of Agadez call "ghettos". The English words "You are all welcome" are scrawled on the red steel door of one, a small house on a back street, but the scene behind it is uninviting. In a space roughly the size of a hotel room, a couple of dozen young men, mostly Gambian and Senegalese, lie in the stupefying heat. Sachets of detergent and cigarette boxes litter the dirt floor; backpacks and clothes are piled in corners. From here, they plan to take pickup trucks across the desert to Libya, to cross the Mediterranean and, eventually, to reach Europe.

Shani, who runs a ghetto, explains how it works. Migrants come to him through a broker, who is connected to marketeers in their countries of origin. They pay the broker for their passage; Shani puts them up and arranges transport. For each he is paid a fixed fee. The money is released by the broker when the migrant has crossed the desert and arrived in Sebha, in Libya.

Migrants are encouraged by family, friends who have already made it—and rapacious recruiters, who promise a cheap and easy trip. Some think it is "only 15km over the sea to Italy", says Maurice Miango ►



► of the IOM's Agadez office. Others do not know that Libya is at war, or that they will have to travel across desert. And many do not understand that in Europe they may not have the right to work or attend school.

Typical is Aliher Silah, a 21-year-old Gambian who was persuaded to set out by a relative in Oslo. He borrowed money from his family and paid 19,000 Gambian Dalasi (about \$450) to a trafficker to get as far as Libya. Now he is waiting in a ghetto for more money: extortion at official checkpoints has made the journey much pricier than he expected. He does not seem to know that Oslo is in Norway, or have any idea how he could get there from Italy. His aim is "to get money to help my family", he says. But he does not know that he will (in theory, at least) need papers to get a job.

Anywhere but here

According to Peter Tinti and Tuesday Reitano, the authors of "Migrant, Refugee, Smuggler, Saviour", the route to Europe through Libya became popular with sub-Saharan Africans in 2012 thanks to Syrian refugees who travelled to Libya through Egypt. They were much richer than the locals, and it was their demand that created the trafficking networks. When their numbers fell, smugglers turned to Libya's resident population of sub-Saharan Africans to maintain demand, and then to recruiters in west Africa to bring more.

Yet unlike Syrians, sub-Saharan Africans cannot pay much. As the people-smugglers' margins have been squeezed, the extortion of migrants has grown. At the IOM's transit centre, men relay horrifying stories of being robbed or imprisoned for ransoms. "In Libya, everyone has a gun," says Marcel Kalla, a 34-year-old Cameroonian. "Even the children have guns." When he ran out of money, he was locked up and half-starved for two months. The women held with him were raped, he says. He was freed only when a Nigerian took pity on him and helped him get back to Agadez.

Until recently, people-smuggling went on quite openly in Agadez, says Mr Miango. Most of the migrants could come to Niger legally, as citizens of the Economic Community of West African States. They would arrive at the bus station, collect money at the bank and hire smugglers. After a few days in a ghetto they would leave. On Mondays convoys of white Toyota pickup trucks, each holding around 25 people, would roar off into the desert.

Since August Niger's government has been enforcing a law passed last year that criminalises people-smuggling, and departures for Libya recorded by the IOM have dropped off. In September it registered around 27,000 desert crossings, down from a peak of 72,000 in May. The fall is partly because of the weather: as European winter approaches, the sea is harder to cross. But the new restrictions have had a

big effect, too, says Mr Miango. Vehicles have been seized and 22 traffickers jailed.

Nevertheless, people-smuggling has been driven underground, rather than dealt a lasting blow. Instead of departing direct from Agadez, Shani now pays drivers from the Tuareg desert tribe to drive his charges, hidden in lorries, to an oasis 80km from Agadez. There they are transferred to pickup trucks which go the rest of the way across the desert. And instead of leaving in convoys, the lorries now depart separately late at night, and take back streets. To cover the extra cost, Shani has raised the price he charges brokers from 90,000 CFA francs per migrant (about \$150) to 105,000. The bribes to police at checkpoints (which migrants must pay) have also risen sharply.

And it is debatable whether the crackdown will last. The new law was passed after intense European pressure; Niger's government was rewarded with €596m (\$656m) in budget support, to be paid over six years. But in May, after the EU's deal with Turkey, Niger claimed it needed a further €1 billion to combat trafficking. Migration is a useful way to squeeze money from Europe—but arguably little more than that.

Indeed, officials have plenty of reason to let the trade continue. "Migration is a network of powerful people, people who have got money," says Rhissa Feltou, Agadez's Tuareg mayor. The region around Agadez was hit hard by the fall of Qaddafi. Tuaregs had benefited from his largesse: his portrait still hangs in houses across Agadez. They are no fans of Niger's government. Though Mr Feltou denies that migration helps the town much, he admits that ending it could hurt. "The guides and drivers, they have no other opportunities," he says. Without work they could be easy recruits for Islamist insurgents—like many Tuaregs in neighbouring Mali.

During recent months the number of migrants who have abandoned the attempt to make it to Europe, and the number being helped to return home by the

IOM, have climbed. Mr Kalla is one of them. The idea of Europe was too good to turn down, he says. "You think there is money on the streets. How can you not be excited? The smugglers told me it would be like a dream, almost as easy as flying." But he would not try to go through Libya again, "not even for millions".

Perhaps, if that message gets out, it will prove a deterrent. It would be reinforced if more of the migrants who make it to Europe, but are refused asylum, were returned home. The EU also needs to do what it can to undermine the smugglers' business model, though this is hard without a functioning Libyan state to deal with. An important step, says Federico Soda, the IOM's director in Rome, would be for Europe to allow some legal immigration for unskilled Africans. That would redirect at least some migrants away from irregular, dangerous channels towards managed ones, and enable Europe to reap the economic benefits of immigration, such as easing seasonal labour shortages.

The hardening of anti-immigration attitudes across the continent probably makes such a policy politically impossible. Without it, though, the flow of Africans daring everything for a better life in Europe will continue. As poor countries develop, emigration rates tend to rise until annual GDP per person reaches \$7,000-8,000, says Michael Clemens of the Centre for Global Development, a think-tank in Washington, DC. Most African countries are far poorer than this; income per head in Gambia is only about \$500 a year.

"We are here because we fill a void," says Nicholas Papachrysostomou, the MSF leader on board the *Dignity 1* (pictured with a child migrant on previous page). The charity was not set up to carry out rescue missions, he laments. The ship will sail the Mediterranean waters for a few weeks more, until the weather worsens and leaving Libya becomes nearly impossible. But she will be back early next year. ■



En route to Italy, at the end of a long journey



Elon Musk's empire

Countdown

NEW YORK

The entrepreneur's finances are as jaw-dropping, inventive and combustible as his space rockets

LIKE most technology tycoons, Elon Musk exudes disdain for finance. Convertible bonds and lease accounting are problems for Wall Street, while the visionaries in California focus on driverless cars and space travel. Yet while he might be loth to admit it, Mr Musk has become America's most audacious corporate financier as well as its best-known entrepreneur. In just over a decade he has created an empire valued at a cool \$44 billion despite its heavy losses (see chart on next page). A blend of financial laboratory, corporate labyrinth and buttock-clenching thrill ride, Musk Inc has pushed the boundary of what was thought possible.

As has been the case for a decade, Mr Musk's businesses face a difficult struggle to sustain their market valuations over the next 18 months, and to bolster confidence he is expected to unveil new financial measures and also new products over the next few weeks. Mr Musk has repeatedly defied the odds. But the stakes have got bigger now that shareholders, creditors and counterparties have tens of billions of dollars at risk. Tesla, an electric-car manufacturer, must ramp up production quickly and also meet the threat from new electric models designed by traditional car firms. Mr Musk wants to merge two of his firms, Tesla and SolarCity, a company which installs rooftop solar panels. Both firms burn up cash. He already has a place in American busi-

ness history, but whether as a cautionary or inspiring tale will soon become clear.

As a child growing up in South Africa, Mr Musk would enter trances in which he could imagine complex computer systems. His business can be visualised as having four parts (see diagram on next page). The biggest one is Tesla, which is publicly listed. SpaceX launches rockets for government and commercial clients and is financed by private investors. SolarCity is listed and struggling, so Tesla is trying to buy it in a backdoor bail-out. Lastly there is Mr Musk's personal balance-sheet. It is rich in assets—his stakes in the firms are worth \$13 billion—but he has little cash on hand.

In total Musk Inc has perhaps \$8 billion of sales, and is set to burn \$2.3 billion of cash during 2016. Its structure developed in a haphazard fashion. It includes both public and private firms, reflecting the fact that Tesla and SolarCity floated before the craze for so-called unicorns, or technology firms such as Uber that rely on private investors. Musk Inc also carries echoes of Asian and Italian business federations, which pool resources and people: SolarCity uses batteries made by Tesla, for example, and SpaceX has made loans to SolarCity. Mr Musk is the chairman of all three firms, which share some directors. His cousins manage SolarCity. Fidelity, a big asset manager, owns large stakes in each of the trio.

Mr Musk dreams of populating Mars

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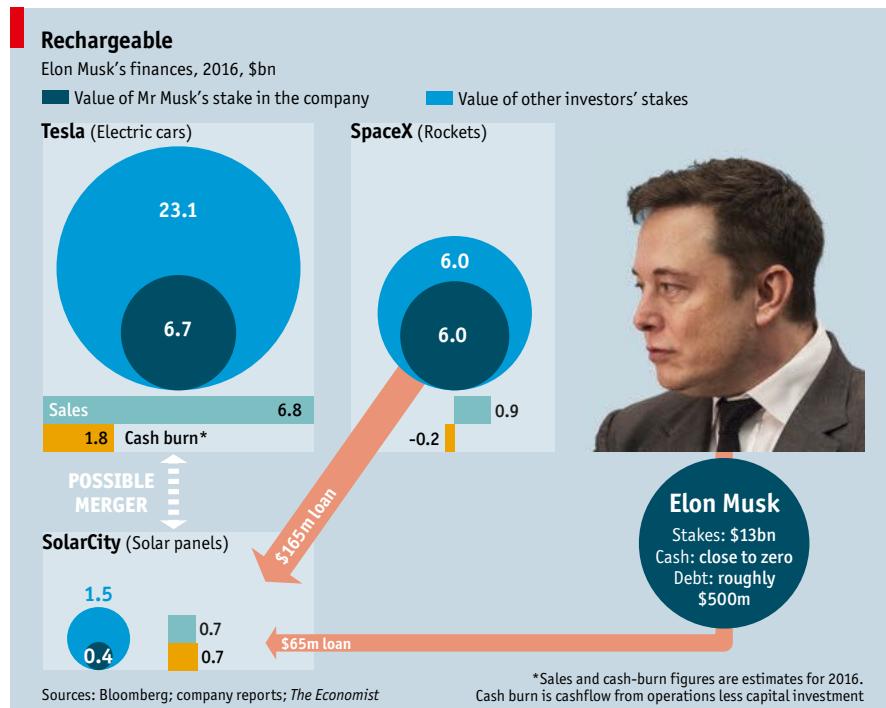
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and of hyperloops that transport people in pods between Los Angeles and San Francisco in 35 minutes. But his financial objectives are probably identical to those of carpet or chewing-gum tycoons: to raise cash, to get a high valuation and to keep control.

Consider the ways in which Mr Musk drums up cash, first of all. He has raised an epic \$6 billion of equity from investors, staff and even from Tesla's competitors (for a while, Toyota and Daimler owned stakes in the carmaker). Musk Inc also owes about \$6 billion of debt to bond investors and banks. But what sets it apart is the \$7 billion of cash and revenue that it has squeezed from unconventional sources. That includes deposits from customers before their cars are delivered; asset-backed securities and special-purpose funding vehicles that raise funds against assets without guarantees from Mr Musk's firms; emissions credits, loans from the government and deals under which leasing firms purchase cars in return for a guarantee that Tesla will buy them back. (Mr Musk's firms dispute our total figure on their unconventional sources of funds).

It's lonely out in space

The second goal, a high valuation, is vital to command confidence and for raising cash. The business itself is volatile—in April, 400,000 people pre-ordered Tesla's \$35,000 new car, the Model-3, a welcome surprise. In September one of SpaceX's rockets exploded. So the key is to control perceptions of the distant future, in order to influence financial forecasts from banks and investors. Here Mr Musk is dazzlingly skilful. He publishes plausible "master plans" and uses shifting targets to anchor expectations. For example, in May he said Tesla would make 500,000 cars a year by 2018, ahead of his previous target of 2020. It ►



will make only about 85,000 this year.

The result is spectacular: the average of investment-bank analysts' projections says that Tesla's revenues will soar from \$7 billion to about \$30 billion by 2020, following a path like those of three of history's most successful firms, Google, Apple and Amazon, at their raciest point, in the mid-2000s. Only about a fifth of these cumulative sales are from existing customer orders, yet these medium-term bank forecasts, upon which the edifice partly rests, are stable despite operational wobbles. Incredulous short-sellers have queued up to bet against SolarCity and Tes-

la. But the Musk empire also has plenty of fans in Silicon Valley and on Wall Street.

The last objective, control, is key to Mr Musk, who in 2000 was ousted as the boss of PayPal, an internet-payments firm he co-founded. He owns about 50% of SpaceX, but his shareholdings in Tesla (23%) and SolarCity (22%) are near the threshold where control is no longer guaranteed.

To keep all these balls in the air, the firms must meet their targets. SpaceX generates cash and has an impressive order book, but must recover from the explosion in September. SolarCity needs to cut costs. Tesla must ramp up production of its Model X and Model 3 cars, and compete with rival electric cars to be launched by General Motors, Daimler and Audi, among others.

If the firms fall behind, a cash crunch becomes likely. Mr Musk's companies insist they will not burn up much more money. But they could easily eat up \$4.5 billion, starting from the second half of 2016 to the end of 2018. They will also need to refinance \$2 billion of maturing debt. Against this, the Musk group has about \$5 billion of cash and liquidity lines from banks. Mr Musk's own finances look stretched. He has spent most of the \$180m in cash from selling his stake in PayPal to eBay in 2002. He has personally borrowed \$490m, secured against his Tesla shares, and most of that comes from Morgan Stanley, a Tesla underwriter. The car firm's shares would have to fall by more than half before the loans went underwater.

In the event of a squeeze, the triple objectives of raising cash, boosting the valuation and keeping control will start to conflict. The proposed SolarCity acquisition illustrates this: by getting Tesla to buy

struggling SolarCity, Mr Musk can keep it alive and maintain control. But it could hurt the valuation of Tesla, which will be lumbered with its sister firm's debt and losses. To his credit, Mr Musk has said that the independent shareholders of both firms must approve the deal.

Similarly, if Tesla were to try to ease the financial pressure by raising lots of equity, Mr Musk's stake could drop below 20%, threatening his control. He could issue non-voting shares—as Facebook has—or invoke the poison-pill provisions Tesla has in its statutes. But that might hurt the group's valuation. He could try to sell Tesla to a car or technology firm (Google almost bought it in 2013), or SpaceX, through gritted teeth, to a defence firm. But their punchy valuations mean that they would be a mouthful for even giants such as General Motors or Lockheed Martin, a defence group.

Given all this, it is likely that in the coming weeks Mr Musk will adopt a more familiar approach: squeezing costs in the short term, dreaming up new products and explaining how lean manufacturing techniques will allow his companies to revolutionise their industries. But with expectations already sky-high, it is hard to see how much more euphoria he can inspire. Mr Musk's most extraordinary creation may not be cars or spacecraft, but a business empire with a financial structure that works only if risky companies perform perfectly on ambitious plans. Mr Musk is like an astronaut orbiting the earth with no easy way down. ■

Media models

Channelling Trump

NEW YORK

The candidate's fan base has what it takes to support a new TV service

AS HIS chances of making it to the White House have narrowed in recent weeks, another avenue has opened for Donald Trump. The notion that he might start his own media network has been the subject of speculation for months. Now industry executives are discussing the possibility in some detail.

In September the Republican candidate's son-in-law, Jared Kushner, owner of the *New York Observer*, asked his friend Aryeh Bourkoff, a banker who has been a dealmaker in the media industry, for advice. (A spokeswoman for Mr Bourkoff said he personally had no interest in such a project). Mr Trump himself has denied any intention to start a network. But a look at the numbers suggests that Trump TV could be a success, media folk say—far from a juggernaut like Fox News, which has revenues ►



► of more than \$2 billion a year, but lucrative nonetheless.

Such a product would have a good shot at going mainstream because Mr Trump could sell it directly to consumers over the internet, as a subscription streaming service. The Trump brand may now be too toxic for a publicly-owned media company to go into business with him. "I would suspect there would be internal protests from women, Muslims and Hispanics and probably many others as well," says Jeff Gaspis, former chairman of NBC Universal Television Entertainment (the company that made Mr Trump a reality-TV star with "The Apprentice"). An internet-only service would solve that problem. And industry analysts argue that his recent stepping up of attacks on the media and on Hillary Clinton for allegedly "rigging" the election have stoked the passions of his strong supporters—which could help turn more into Trump TV subscribers.

The business model could well look like former Fox News personality Glenn Beck's subscription streaming network, which shortly after its launch in 2011 claimed 300,000 subscribers, each paying \$9.95 a month (though it has since sputtered). Mr Gaspis, who has helped launch similar subscription services in the past, reckons that Mr Trump, with his committed fan base, a social-media following of 24m on Twitter and Facebook, and his talent and energy for self-promotion, could quickly attract 250,000 to 500,000 subscribers. At \$100 a year each that would equate to \$25m to \$50m in revenue, on perhaps \$7m to \$8m in production costs.

The programming could be bare-bones—a few hours a day, with cheaply paid on-air talking heads spewing rage on Trumpian themes like trade and immigration—as long as it includes a good dose of Mr Trump. "You only need a half-hour of him a day," says Mr Gaspis. "It really doesn't take that much to keep a fan base satisfied."

An online-only Trump TV could start very soon after November 8th if he were to buy and rebrand an existing streaming service (starting a new one could take months, losing him valuable time). Building a full-fledged cable channel, by contrast, would be far harder. The conservative media standard-bearer, Fox News, is the highest-rated cable news channel, and the most profitable. But for significant revenues a channel has to get ratings. Mr Trump can obviously help with that—the Trump effect has boosted viewers for all news channels. But a cable network still would cost tens of millions of dollars upfront. Mr Trump may not be willing to risk so much of his own cash.

For any TV venture Mr Trump will be able to look to friends who know how to profit from conservative outrage. Roger Ailes, who built up Fox News, left the channel in July after sexual harassment allegations. He is barred from working at a com-



Hot property

petitor, but has been advising Mr Trump on his candidacy (though the two men are reportedly not speaking at the moment). Stephen Bannon, boss of Breitbart News, a reactionary news website, is the billionaire's campaign chief executive. This week, ahead of the third presidential debate, Mr Bannon fanned expectations when he answered pointed questions about Trump TV by saying, simply, that "Trump is an entrepreneur." ■

Biotechnology

The trials of Juno

A young biotech firm focused on cancer promises both risk and reward

IN THE pharma business, Juno Therapeutics, a small firm based in Seattle, is just a stripling. It is three years old, has not a single drug approval to its name but is nonetheless valued at \$2.8 billion. That value is derived from the fact that it is on the forefront of the most promising area of cancer treatments in decades: immuno-oncology.

Juno's edge comes from its attempts to master one of the most important parts of the immune system: the T-cell. It is developing a so-called CAR-T therapy, in which its scientists extract T-cells from a cancer patient, modify them with gene therapy so that they can recognise cancer cells, and then put them back in the patient's body ready to attack. The process has a reputation for inducing rapid remissions in cancers of the blood for patients who have exhausted all other options. ■

Small, innovative biotech firms such as Juno are intriguing because nowadays they are the main engine of global drug innovation. Alexis Borysi, a partner in Third Rock Ventures, a venture-capital firm in Boston, notes that pharma companies now buy in three-quarters of their pipelines, and develop only a quarter internally. Big companies eye the little ones hungrily as their main source of future growth.

Juno is not the only biotech firm pursuing its particular technology. Kite Pharmaceuticals, based in California, is one rival. The giant Novartis is also investing. But Juno has stood out. Mark Simon, a partner at Torreya Partners, a consultancy, says that is because it is well run and has, so far, "some very positive, provocative data from the treatment of a number of tumours". If CAR-T can move beyond its current niche into cancer more broadly the firm could help revolutionise its treatment.

It has a full line-up of experienced researchers, including from the nearby Fred Hutchinson Cancer Research Center, which helped Juno become one of the best funded biotech startups ever. There is another more subtle distinction about Juno. It is developing "next generation" versions of CAR-T. Although it is not yet clear how useful or profitable these will be, the expectation is that fine tuning such therapies will lead to even better medicines.

Despite its progress, investors balked when Celgene, a big pharma firm, paid it \$1 billion in 2015 for a ten-year collaboration. It is not hard to see why they hesitated. Biotech is always inherently risky. There are big questions about whether CAR-T therapies can be extended to treat solid tumours. It is also unknown if the therapy will be durable enough to justify the side effects that can result from the treatment, as well as the high cost of such a personalised approach.

The riskiness of the biotech business was underscored this summer when a trial of Juno's lead drug candidate, JCAR015, was put on hold after three of the patients on a trial died. Juno's stock swooned. But the firm convinced the drug regulator that the problem came from the addition of a chemotherapy drug to the treatment, and that removing it would rule out further deaths. Six days later the trial restarted and the company's share price revived.

The setback will nonetheless delay the approval of Juno's first product, a treatment for acute lymphoblastic leukaemia, until 2018. It will also cost the company the bragging rights to being the very first firm to commercialise CAR-T. That now looks likely to be won by Kite Pharmaceuticals, which is aiming for the end of the year. But being first doesn't matter, argues Hans Bishop, Juno's boss. A few years is a "blink of an eye" in this industry, he says. That may be true, but Juno in its own first three years has made a big impact. ■



Retailing

Push my buttons

NEW YORK

Experiments in automated consumption

TRILLIONS of dollars of consumer spending have, historically, depended on a few steps. A shopper learns about a product, considers whether to buy it, decides to do so, goes to a shop. If he likes it, he may buy it again. Marketers have long obsessed over each step, and consultants have written treatises on how to nudge people along. E-commerce is already changing the process, but now retailing gurus are imagining a future in which shopping becomes fully automatic.

The idea is that a combination of smart gadgets and predictive data analytics could decide exactly what goods are delivered when, to which household. The most advanced version might resemble Spotify, a music-streaming service, but for stuff. This future is inching closer, thanks to initiatives from Amazon, lots of startup firms and also from big consumer companies such as Procter & Gamble (P&G).

Buying experiments so far fall into two categories. The first is exploratory. A service helps a shopper try new things, choosing products on his or her behalf. Birchbox, founded in 2010, sends beauty samples to subscribers for \$10 each month. Imitators have proliferated, offering everything from dog toys to trainers. MySubscriptionAddiction.com, which reviews these services in English-speaking countries, counts 998 new subscription boxes so far this year, up from 284 new ones in 2013. Retailers such as Walmart have followed suit with their

own boxes. The scope for such services, however, may be limited. One third of those surveyed by MySubscriptionAddiction.com said they cancelled at least as many subscriptions as they added this year. Consumers, naturally, will delegate purchases to a third party only when they receive products they like. In future, firms that comb purchase histories and search data may be able to send more reliably pleasing product assortments. For now, a consumer who becomes an unwitting owner of toeless socks, which were included recently in a box called FabFitFun, may decline further offers.

The second category of automated consumption is more functional. A service automates the purchase of an item that is bought frequently. Nine years ago Amazon introduced a "Subscribe & Save" feature, offering consumers a discount for agreeing to buy certain goods regularly, such as Pampers nappies. Dollar Shave Club, a male-grooming-products firm, sells razors to subscribers directly, and P&G now has its own, similar service. It is also testing one for laundry detergent.

Amazon is going further. Last year it began selling so-called Dash buttons, designed to be placed around the house to order everyday products—one for Campbell's soup, for instance, and another for Whiskas cat food (pictured). Investors see this as the first step in its bid fully to automate buying of daily necessities. Already, some manufacturers have integrated Amazon into their devices; General Electric, for example, offers washing machines that shop for their own detergent.

Such services have obvious appeal for Amazon and for big consumer brands. If a shopper automates the delivery of a particular item, the theory is that he is likely to be more loyal. For some brands, the buttons are working especially well: more than half of all the many Amazon orders for Maxwell House coffee in America, for example, are made through the Dash button. Amazon says that across America, an order from a Dash button is being placed more than twice each minute.

But neither Amazon nor the big product brands should celebrate a new era of shopping just yet. Amazon does not release comprehensive data on its automated services, but Slice Intelligence, a data firm in California, reported in March that fewer than half of those with Dash buttons had ever pressed them. One problem may be the e-commerce giant's prices, which fluctuate often. Another report, by Salmon, a digital agency inside WPP, an advertising group, found that far more British consumers would prefer a smart device that ordered the cheapest item in a category to one that summoned up the same brand each time. That suggests that automated shopping, as it expands, might make life harder for big brands, not prop them up. ■

African airlines

Well-connected

ADDIS ABABA

Why one national airline is bucking a continent-wide trend

INSIDE the atrium of a gleaming new building on the outskirts of Addis Ababa, trainee air stewards flit between the classrooms and aeroplane simulators that surround a large indoor swimming pool. The expensive aviation academy belongs to Ethiopian Airlines, and seems a world away from the unrest that on October 9th prompted the government to declare a national state of emergency. The firm's CEO, Tewolde Gebremariam, brushes off the idea that the airline will be affected. "We are not concerned," he shrugs.

He has reason to be confident about the business. Ethiopian is Africa's largest and most profitable airline, earning more than its rivals on the continent combined. Its expansion has been rapid: by 2015 it served 82 international destinations, with 13 more added this year. According to unaudited figures, it nearly doubled its profits in the last financial year (see chart). And that is amid national turmoil.

It helps that its regional rivals are competing only feebly on routes in Africa. According to the International Air Transport Association, African carriers are likely collectively to record a net loss of \$500m this year. Kenya Airways, which has been in the red for four years on the trot, is flogging some of its aircraft and last month announced it would raise more equity. South Africa's national carrier, which Ethiopian overtook in size last year, has been unprofitable since 2011, and could be insolvent without government guarantees.

Ethiopian's lead also comes from its own strengths. It took advantage of its plum location in the Horn of Africa. Mr Gebremariam circles Addis Ababa on a line connecting China with Brazil via India and

Routes to success

Ethiopian Airlines



Sources: Company reports; Bloomberg

► the Gulf. It beat rivals who were still fixated on the former colonial routes to and from Europe, and captured Asian traffic. In particular it took an early punt on Chinese demand. In 1973 it was the first African carrier to fly to China. Today a bustling Chinese transit counter at Addis Ababa's Bole airport testifies to the importance the company attaches to the market. And Ethiopian has reduced flights to small African capitals like Brazzaville, in the Republic of Congo, which offer little business, in favour of more flights to the country's booming oil port of Point Noire.

The fact that it is state owned helps keep costs low, but it behaves like an international firm, not a national flag carrier, says Rob Prophet, an aviation consultant. It takes no state subsidies. And although few doubt the closeness of senior executives to the ruling Ethiopian People's Revolutionary Democratic Front, analysts say its management is independent-minded.

Now it wants to be the continent's first pan-African airline. It is opening hubs in Togo and Malawi, and teaming up with smaller rivals. But it is unlikely to be all smooth cruising. Middle Eastern rivals, including Qatar Airways, are expanding across the continent. Poor infrastructure is problematic. A new four-runway airport outside Addis Ababa may improve matters, but few expect it to open on time. And regional instability may hurt sales. Ethiopian was founded in 1945, but it was not until the country's long peace from 1991 that it took off. If the country now nosedives, its national airline will take a hit too. ■

Indian furniture makers

Turning the tables

JODHPUR

Rajasthan's furniture-makers ride the unpredictable waves of globalisation

WALK through the workshop of VinayakHome, a furniture-making outfit based in the outskirts of Jodhpur in the state of Rajasthan in north-west India, and the results of globalisation are evident. Sleek hardwood furniture that would suit Scandinavian interiors is being readied for shipment; carpenters distress the paint on a newly-made chest of drawers to make it look as if it has come straight from a flea market in Brooklyn. But the company's order book suggests that globalisation is fading. VinayakHome is one of a cluster of Rajasthan furniture-makers that used to do nothing except export to Europe and America, but nearly all of what they make today they ship into Indian living rooms.

Jodhpur, on the edge of a desert with few trees to feed sawmills, is an unlikely

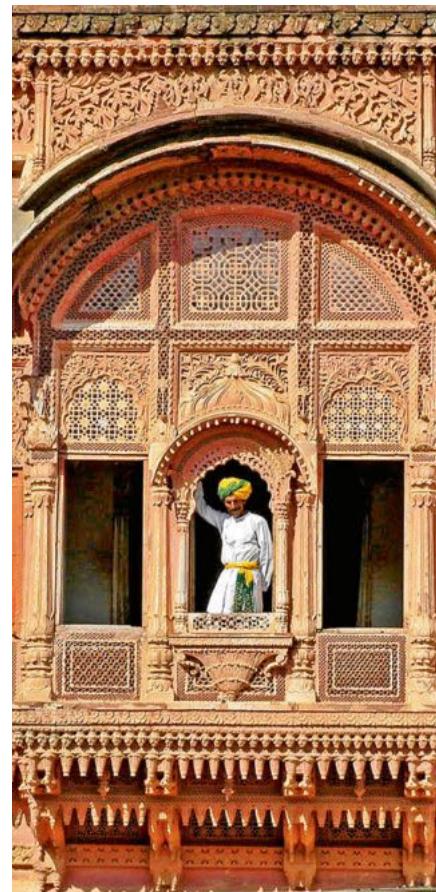
woodworking hub. But when tourists came to survey the arid landscape and the 15th-century fort that overlooks the city, many also admired the hardwood carvings by skilled artisans (pictured). When India liberalised its economy in the early 1990s, a small group of European exporting agents encouraged independent furniture-makers. Then volumes grew, cheap power tools came from China, furniture fashions changed, and latticework made way for those Scandinavian, minimalist designs.

Globalisation continued to spur growth. Like labour-intensive footwear and textiles, furniture-making has in recent decades shifted relentlessly from rich to poor countries. A skilled carpenter in India makes around 500 rupees (\$7.50) a day. Large orders from companies such as Laura Ashley, a Malaysian-owned firm, or Crate & Barrel, an American interior-furnishings chain, poured in to Jodhpur's craftsmen.

But what the global market gave, it gradually took away. Foreign shipments have see-sawed since 2008, but are now flat or falling. Western economies are growing slowly and there is competition from other Asian manufacturers. Globalisation has brought rival opportunities, too. What the world wanted from Rajasthan a few years ago wasn't tables and stools but an obscure crop called guar. Once a niche bean, producing gum used to thicken sauces and ice cream, it somehow became a key ingredient for fracking (hydraulic fracturing) shale oil in America. Around two-thirds of the world's guar gum comes from Rajasthan, and the boom in production created a new class of farmer-millionaires. The riches to be made from farming drained furniture workshops of labour for a while.

Luckily for Rajasthani workers, by the time the guar boom ended, global trends had inflated a new bubble. Firms such as Goldman Sachs, an investment bank, Sequoia, an American venture-capital company, and Rocket Internet, a German startup factory, were throwing money at Indian e-commerce sites dedicated to furniture. Three such young firms, Pepperfry, Urban Ladder and FabFurnish, have raised over \$250m in funding in the past five years. Along with mainstream e-commerce sites, they now ship goods from Rajasthan and elsewhere within India worth over \$200m each year, or roughly the same as Jodhpur's furniture-makers are believed to export. The home market is booming.

Just over half of Jodhpur's furniture production still ends up overseas, notes Devashish Banerjee, a veteran of the export trade who now works at Pepperfry. But it was only five years ago that the proportion going abroad was 90%, and in another five years the domestic market will claim four-fifths of the desert city's output, he says. Many middle-class Indians are moving out of homes that they used to share with their parents or other relatives,



All wood, few trees

spurring rapid growth in property and furniture sales.

The new e-commerce players may displace local mom-and-pop manufacturers, and the rise in domestic demand will benefit other woodworking clusters as well, such as Bihar and Kerala. But Rajasthan has geographical advantages: it is arid in an otherwise humid country, so furniture made there doesn't warp so much. It also takes just a day in a lorry to get to Delhi and two to reach Mumbai, India's biggest cities.

Sukesh Bhandari, one Jodhpur entrepreneur, thinks of the domestic furniture market as a continuation of the export trade. "We are globalising and Indianising simultaneously," he says. There are concerns that the venture-capital money sustaining the furniture websites may run out, even before all of them turn a profit, but for now the funds are flowing.

As for globalisation, it will soon bring a new rival for Jodhpur's vibrant domestic market. Next year a certain Swedish purveyor of mainly softwood and laminate furniture, IKEA, will open the first of 25 stores it plans for India. That will be competition, but potentially an opportunity, too: Indian rules stipulate it must source 30% of its inventory locally, and that could well include furniture. Jodhpur's manufacturers may soon be carving a new, but strangely familiar, product range. ■

Schumpeter | Techno wars

An earlier sunny mood about technology and innovation has given way to pessimism



THE most striking battle in modern business pits the technologists against the techno-pessimists. The first group argues that the world is in the middle of a technology-driven renaissance. Tech CEOs compete with each other for superlatives. Business professors say that our only problem will be what to do with the people when the machines become super-intelligent. The pessimists retort that this is froth: a few firms may be doing wonderfully but the economy is stuck. Larry Summers of Harvard University talks about secular stagnation. Tyler Cowen, of George Mason University, says that the American economy has eaten all the low-hanging fruits of modern history and got sick.

Until recently the prize for the most gloom-laden book on the modern economy has gone to Robert Gordon of Northwestern University. In "The Rise and Fall of American Growth", published in January, Mr Gordon argues that the IT revolution is a minor diversion compared with the inventions that accompanied the second industrial one—electricity, motor cars and aeroplanes—which changed lives profoundly. The current information upheaval, by contrast, is merely altering a narrow range of activities.

Now a new book, "The Innovation Illusion" by Fredrik Erixon and Bjorn Weigel, presents a still more pessimistic vision. Messrs Erixon and Weigel write that the very engine of capitalist growth, the creative destruction described by Joseph Schumpeter, is kaput. Aside from a handful of stars such as Google and Amazon, they point out, capitalism is ageing fast. Europe's 100 most valuable firms were founded more than 40 years ago. Even America, which is more entrepreneurial, is succumbing to middle-aged spread. The proportion of mature firms, or those 11 years old or more, rose from a third of all firms in 1987 to almost half in 2012, and the number of startups fell between 2001 and 2011.

People who extol free markets often blame such stagnation on excessive regulation. That has certainly played its part. But the authors argue that stagnation has most to do with the structure of capitalism itself. Companies are no longer actually owned by adventurous capitalists but by giant institutions such as the Vanguard Group (with more than \$3 trillion under management) which constantly buy and sell slivers of ownership for anonymous investors. These institutions are more interested in predictable returns than in enterprise.

It is not all Mark Zuckerbergs at the top, the authors posit. Most big firms are answering the call for predictability by hiring corporate bureaucrats. These people shy away from risky investments in new technology. After rising relentlessly as a share of GDP in 1950-2000, investment in IT began declining in the early 2000s. Instead of shaking up markets, bureaucratic CEOs focus on squeezing the most out of their sunk costs and fight to defend niches. They hoard cash, buy back their firms' shares and reinforce their positions by merging with former rivals.

The gloomsters' case is true to some extent but it is overstated. Mr Gordon is right that the second industrial revolution involved never-to-be-repeated changes. But that does not mean that driverless cars count for nothing. Messrs Erixon and Weigel are also right to worry about the West's dismal recent record in producing new companies. But many old firms are not run by bureaucrats and have reinvented themselves many times over: General Electric must be on at least its ninth life. And the impact of giant new firms born in the past 20 years such as Uber, Google and Facebook should not be underestimated: they have all the Schumpeterian characteristics the authors admire.

On the pessimists' side the strongest argument relies not on closely watching corporate and investor behaviour but rather on macro-level statistics on productivity. The figures from recent years are truly dismal. Karim Foda, of the Brookings Institution, calculates that labour productivity in the rich world is growing at its slowest rate since 1950. Total factor productivity (which tries to measure innovation) has grown at just 0.1% in advanced economies since 2004, well below its historical average.

Optimists have two retorts. The first is that there must be something wrong with the figures. One possibility is that they fail to count the huge consumer surplus given away free of charge on the internet. But this is unconvincing. The official figures may well be understating the impact of the internet revolution, just as they downplayed the impact of electricity and cars in the past, but they are not understating it enough to explain the recent decline in productivity growth.

Back-seat producers

Another, second line of argument—that the productivity revolution has only just begun—is more persuasive. Over the past decade many IT companies may have focused on things that were more "fun than fundamental" in Paul Krugman's phrase. But Silicon Valley's best companies are certainly focusing on things that change the material world. Uber and Airbnb are bringing dramatic improvements to two large industries that have been more or less stuck for decades. Morgan Stanley estimates that driverless cars could result in \$507 billion a year of productivity gains in America, mainly from people being able to stare at their laptops instead of at the road.

The real question is not whether the IT revolution has run out of steam or whether creative destruction is grinding to a halt. In fact, the IT revolution is probably gathering pace and Google and Amazon are two of the most innovative firms to emerge in the past 50 years. Rather it is whether the new economy can counteract the forces ranged against it: ageing populations; a political class responding to populism by restricting trade and by over-regulating business; and education systems that in many places are failing. The big danger is that, while optimists and pessimists battle it out, the world becomes ever more divided between islands of high productivity surrounded by a vast ocean of stagnation. ■



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Government bonds

Who's scary now?

The bond market is transformed: fewer vigilantes; more forced buyers

JAMES CARVILLE, political adviser to Bill Clinton, the former president, famously said that he wanted to be reincarnated as the bond market so he could “intimidate everybody”. He was frustrated by the administration’s inability to push through an economic stimulus for fear of spooking investors and pushing bond yields higher.

More than 20 years later, the world looks very different. Many developed countries have been running budget deficits ever since the global financial crisis of 2008; their government debt-to-GDP ratios are far higher than they were in the early 1990s. Yet the bond market looks about as intimidating as a chihuahua in a handbag; in general, yields are close to historic lows.

In the 1990s “bond-market vigilantes” sold their holdings when they feared that countries were pursuing irresponsible fiscal or monetary policies. In Britain even fear of a “hard Brexit” is only now being reflected in rising gilt yields—and they are still below the (very low) levels seen before the vote to leave the EU in June. Even developing countries with big budget deficits can borrow easily. This week, for example, Saudi Arabia tapped the markets for the first time, raising \$17.5 billion—the largest ever emerging-market bond issue.

Vigilantes have become vastly outnumbered by bondholders with no real interest in maximising the return on their portfoli-

os. Central banks have been the biggest factor in the market’s transformation. After the crisis, they turned to quantitative easing (QE), ie, expanding their balance-sheets by creating new money in order to buy assets. The collective balance-sheets of the six most active (the Federal Reserve, Bank of Japan, European Central Bank, Swiss National Bank, Bank of England and People’s Bank of China) have grown from around \$3 trillion in 2002 to more than \$18 trillion today, according to Pimco, a fund-management group. These central banks want to lower bond yields—indeed, the Bank of Japan intends to keep the ten-year Japanese bond yield at around 0%. Instead

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of acting as vigilantes patrolling profligate politicians, central banks have become their accomplices.

Then there are pension funds and insurance companies, which buy government bonds to match their long-term liabilities. Neither group has an incentive to sell bonds if yields fall; indeed, they may need to buy more because, when interest rates are low, the present value of their discounted future liabilities rises. Banks, too, play an important role. They have been encouraged to buy government bonds as a “liquidity reserve” to avoid the kind of funding problems they had in the 2008 crisis. They also use them as the collateral for short-term borrowing.

Yielding to none

With so many forced buyers, trillions of dollars-worth of government bonds are trading on negative yields. “When you have so many price-insensitive buyers, the price-discovery role of the market doesn’t work any more,” says Kit Juckes, a strategist at Société Générale, a French bank.

For much of the 20th century, bonds were the assets of choice for investors wanting a decent income. No longer. Government bonds now seem to be a home for the rainy-day money of institutional investors. The rules say government bonds are safe, making it virtually compulsory to own them. “It’s about the return of capital, not the return on capital,” says Joachim Fels, Pimco’s chief economist.

If central banks are willing buyers of an asset, that asset is as good as cash for most investors. So like cash, government bonds generate a very low return. Always true of the shortest-dated bonds, to be repaid in a few weeks or months, this now applies to a much broader range: two-year debt yields ➤

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Vanishing inventories

US primary dealers’ corporate-bond holdings
As % of amount outstanding



Sources: FINRA; Federal Reserve Bank of New York

► are negative in Germany and Japan and below 1% in America. Open-market operations, in which central banks buy and sell securities, used to focus on debt maturing in less than three months; now they cover bond yields at much longer maturities.

This new-style bond market has created a problem for those who run mutual funds or who manage private wealth—and who do care about the return. Large parts of the bond market no longer offer the rewards they used to. As each year begins, polls show that fund managers think bond yields are bound to rise (and prices to fall); each year they are surprised as yields stay low. "When your old-fashioned pricing model doesn't work, how do you decide when the asset is cheap?" asks Mr Juckles.

In practice, such investors have been forced to take more risk in search of a higher return. They have bought corporate bonds and emerging-market debt. And in the government-bond markets they have bought higher-yielding longer-term debt.

A key measure of risk is duration; the number of years investors would take to

earn back their money. In Europe the average duration of government debt has increased from six to seven years since 2008, according to Salman Ahmed of Lombard Odier, a fund-management group. That doesn't sound much. But the longer the duration of a portfolio, the more exposed it is to a rise in bond yields. Mr Ahmed reckons that a half-a-percentage-point rise in yields "would create significant and damaging mark-to-market losses".

Another change in the bond markets exacerbates the problem: liquidity has deteriorated. There have been some sudden jumps in yields in recent years—the "taper tantrum" in 2013, when the Fed started to reduce its QE programme; and a surge in German bond yields in 2015, for example.

Banks may hold bonds for liquidity purposes. But because they are required to put capital aside to reflect the risk of holding corporate debt, they have become less keen to own them for market-making, or trading. Before 2008, bond dealers had inventories worth more than 2% of the corporate-bond market; now their inventories

are only a tenth of the size, in relative terms (see chart on previous page).

So should a large number of bond investors decide to sell their positions in risky debt, buyers will be scarce; prices may move very quickly. Yet it is not difficult to imagine reasons for a sell-off. If the Fed decides to push up interest rates more quickly than the markets expect, bond yields could rise across the globe. The same could happen if central banks in Europe and Japan decided they no longer wanted to buy government debt: such fears this month nudged up yields in Europe. Or investors might start to fret about the amount of credit risk they have taken. In the emerging markets, for example, more than half of corporate bonds are ranked as "speculative" or "junk", and the default rate has been steadily rising.

In short, as Mr Juckles puts it, the bond market is "brittle". It is priced for a world of slow growth and low inflation, leaving no margin for error if things change. The most intimidating thing about the modern bond market now is the risk that they do. ■

Venezuelan government debt

Running out of time

A devastating spiral continues

TO MOST investors, Venezuela looks less like a market than a mess. The IMF expects output to shrink by 10% this year and inflation to exceed 700%. As the bolívar's value has plunged, multinational firms have announced billions of dollars of write-downs. For much of this year, however, some strong-stomached investors have scented an opportunity. They rushed to buy bonds issued by the government and by the state-owned oil company, PDVSA.

They have been rewarded handsomely. Venezuelan government bonds have outperformed other emerging-market sovereign bonds tracked by JPMorgan (see chart). The government, led by Nicolás Maduro, boasts it has never missed a debt payment. Indeed he has given priority to debt service over other urgent needs, such as importing food. Mr Maduro is keen not to scare off the foreign creditors sorely needed by PDVSA.

However, Venezuela looks increasingly stretched. Two big PDVSA payments, of \$1 billion and \$2 billion, are due on October 28th and November 2nd. Last month the company proposed a bond swap to ease a looming payments crunch: investors holding PDVSA bonds maturing in 2017 (which are not backed by a full sovereign guarantee), would exchange them for bonds maturing in 2020. This would buy Venezuela time, perhaps in

the hope that oil prices rise.

Not so fast. Even sweetened terms for the swap have failed to lure investors. PDVSA has four times delayed the deadline for the exchange, most recently to October 21st. PDVSA warned in a press release on October 17th that if its offer is not accepted, "it could be difficult" to make its scheduled payments.

Francisco Velasco of Exotix, a brokerage specialising in frontier markets, says investors face a prisoner's dilemma. They could agree to a swap, with terms that are less than ideal, in the hope that others investors will do the same. Or they could decline PDVSA's offer. But that would make default ever more likely.

The Maduro market

Bond total returns, \$ terms, January 1st 2016=100



Sources: JPMorgan; Thomson Reuters
†JPMorgan EMBI Global Diversified

Italian banks

Spectral forms

MILAN

TWO lenders seal a merger, while another ponders its options

FROM the mists of Italian banking, new shapes are emerging. One is at last becoming flesh: on October 15th the shareholders of two lenders, Banco Popolare and Banca Popolare di Milano, approved a merger that has been months in the making. The substance of another—Banca Monte dei Paschi di Siena, the world's oldest bank as well as Italy's most troubled—is still shrouded, but it is likely to become clearer at a meeting of Monte dei Paschi's board on October 24th.

The merged bank, to be called Banco BPM, will surpass Monte dei Paschi to become Italy's third-largest lender. Its creation is a small triumph for Matteo Renzi, the centre-left prime minister. Last year Mr Renzi introduced a reform obliging Italy's ten biggest *popolari*, or co-operative banks, to become joint-stock companies by the end of 2016. The hope was that this would spur takeovers, yielding fewer, stronger, more efficient banks.

The Banco BPM deal, which promises annual savings of €290m (\$318m), or 10% of the combined cost base, is Mr Renzi's first result. Two awkward obstacles stood in its way. Voting rules at the *popolari* give all shareholders an equal say, regardless of their stake: some retired Banca Popolare di Milano staff were against the merger, but ►

failed to block it. And the European Central Bank imposed demanding conditions, including a €1 billion capital increase for Banco Popolare, that threatened to scupper the deal, the first since it started supervising the euro zone's most important banks in 2014. The delay, Italian bankers grumble, has discouraged other possible mergers. That said, further consolidation could be on the way: UBI Banca, Italy's fifth-biggest bank, is said to be eyeing three of four small lenders rescued by the state last year.

Compared with rebuilding Monte dei Paschi, such takeovers are child's play. The lender's woes stretch back years. In 2007 it

overpaid for Antonveneta, a bank it bought for €9 billion from Spain's Santander. After the financial crisis it was laid low by losses on derivatives trades. It has since been crushed by bad loans, which make up about one-third of its book, the worst in Italy. Monte dei Paschi has had two bailouts from the state. It raised €8 billion from share issues in 2014 and 2015, partly to repay the government. To little avail: its market capitalisation is a mere €600m.

In July, anticipating dismal results in stress tests by European regulators, Monte dei Paschi presented a rescue plan. The brainchild of advisers led by JPMorgan, it

envises stripping bad loans with a gross value of €27.7 billion out of the bank. At their net value, estimated at €9.2 billion, these would become the assets of a separate entity. This entity would be funded by: €6 billion-worth of investment-grade notes, which would be eligible for a state guarantee; a mezzanine tranche of €1.6 billion, to be taken up by Atlante, a fund backed by several financial institutions, set up to invest in bad loans and ailing banks; and €1.6 billion of junior bonds, to go to Monte dei Paschi's shareholders.

The spruced-up Monte dei Paschi would be recapitalised with a €5 billion

Buttonwood | Mutual incomprehension

A book investors will read with disquiet

AMERICANS who want a comfortable retirement, and who work in the private sector, have to look after their own interests these days. No longer can most rely on their employer to pay a pension linked to their final salary; such defined-benefit promises are too expensive.

Instead, workers are promised something called a defined-contribution (DC) pension which, truth be told, isn't a pension at all. It is a savings pot to which employers and employees contribute, with some tax advantages. How big that pot will be, and what kind of income it will provide, is unknown.

Most of those savings will probably be invested in mutual funds. Yet as William Birdthistle, an academic lawyer, writes in an entertaining new book*, small investors need to become better informed about the way mutual funds work.

One might think, for example, that all investors in a fund are treated equally. But Mr Birdthistle cites a set of JPMorgan equity funds which have seven different types of shares, with opaque names such as Class R5. The main difference tends to be the fees that funds charge. Small investors usually pay most, even those in some DC schemes. These fees often seem excessive. The author reproduces a table from a single fund managed by Oppenheimer, which has six classes of shares, with the cost determined by nine sets of separate figures for each class. Total annual fees range from 1.01% to 2.2%.

Fees are normally charged as a proportion of the fund's assets, and so rise and fall with the overall market. But does it really cost more to run a fund if the market rises by 20%? Not all fund managers share economies of scale with their investors.

One particular fee sticks in the craw. That is the distribution-and-service, or 12b-1, fee, which is used to market the fund



to new investors. But why should existing investors pay for this process, which will benefit the fund manager? Studies suggest that existing investors get no benefit at all from an increase in fund size. But the industry mopped up more than \$12 billion from 12b-1 funds in 2014.

Remarkably, the fees listed in a mutual-fund prospectus are not the only charges investors face. Funds also incur expenses, such as brokers' commissions, when they buy and sell securities. These fees are deducted from investors' returns.

Fair enough, one might argue. Such charges are an inevitable cost of running a fund, and a mutual-fund manager can deal much more cheaply than retail investors would be able to do on their own. But sometimes the fund manager receives services from the broker in exchange for trading—a system known as "soft dollar". Some of these services may look benign, such as investment research to help a manager pick the best shares (though isn't this supposed to be his or her expertise?). But investigations by the Securities Exchange Commission, a regulator, have found more dubious uses for soft dollars, such as pay-

ing hotel and mobile-phone bills. Although these arrangements are legal, they represent a potential conflict of interest—and their cost is not disclosed to investors.

Mr Birdthistle also outlines serious abuses that have occurred in the mutual-fund industry—particularly over late trading and market timing, where privileged clients were able to make profits at the expense of ordinary investors. These cost the fund-management firms concerned billions of dollars in fines.

With luck, the industry has reformed and such scandals are things of the past. Mr Birdthistle accepts that mutual funds play a useful role in giving small investors access to diversified portfolios, sometimes at very low cost. Yet the structure of the industry needs further reform; only 40% of the trustees (the people responsible for looking after investors' interests) are required to be independent of the fund manager. It would be better if independents were in the majority.

The rise of passive index-tracking funds with ultra-low fees will surely put downward pressure on the fees commanded by the rest of their industry. Some high-charging managers can outperform their index, but there is no reliable way of picking them in advance. Assuming a 6% gross return, an extra percentage point in annual fees over the course of a career can reduce your pension by about 30%. Investors who bear the responsibility of building their own pension pot need to understand the huge impact that charges can have. Reading Mr Birdthistle's book would be a very good place to start.

* *Empire of the Fund: The Way We Save Now* by William A. Birdthistle, published by Oxford University Press

► share issue. The details have mutated over time, but the rough plan is to raise maybe €1.5 billion from a voluntary swap of subordinated debt for equity, perhaps a little more from an "anchor" investor and the rest from a rights issue. The original idea was that the bank's board should approve the plan in late September. That was pushed back after a change of chief executive in the middle of last month.

Finding investors to put up money for a third capital increase in as many years, even in a bank cleansed of duff loans, was always going to be hard. Worse, investors are unsettled by a constitutional referendum on December 4th. If the reform fails, Mr Renzi may be unhorsed. If it passes, markets may become more benevolent.

In a further twist, Corrado Passera, a former government minister and ex-banker, has pitched an alternative. This would tap investors for only €3.5 billion, and somehow squeeze €1.5 billion from earnings, and bring in a private-equity investor. The bank's board said on October 18th it would press on with the July scheme, but "continue to analyse in depth" Mr Passera's idea. It is due to approve its new business plan on October 24th. The search for investors will then begin in earnest.

The mist is lifting elsewhere, too. UniCredit, Italy's biggest lender, is also preparing to ask investors for money. On October 13th it sold 20% of Fineco, a digital bank, for €552m. Two days later it confirmed that it was in talks with PZU, a Polish insurer, about Bank Pekao, Poland's second-biggest bank, of which UniCredit owns 40.1%. Jean-Pierre Mustier, who became chief executive in July, is due to present a strategic review on December 13th. By then, one way or another, much more may be clearer about Italy's beleaguered banks. ■



Will they Passera?

Watson and financial regulation

It knows their methods

NEW YORK

New banking rules baffle humans; can machines do better?

JOINING "Hamilton", a Broadway show, and concerts by Adele, a British soul diva, on the list of tickets-to-kill-for in New York is a screening in an ugly new office building that recently popped-up in the East Village, a place best known for offbeat culture. There is a ten-week-long queue to see simulations by Watson, IBM's cognitive artificial-intelligence platform.

Initially known for stunts such as beating the world's best chess player, Watson has been seeking a wider audience. It has found a vast potential one in the world of financial regulation. Rules have become so sprawling and mysterious that even regulators have begun asking for a map. In response, a market is springing up: for "regtech", fintech's nerdy new offspring.

On September 29th, IBM announced the purchase of Promontory, a 600-strong consultancy whose senior staff include former officials from the Federal Reserve, the World Bank, the Securities and Exchange Commission and other regulators. The hope is that person and machine will combine into a vast business. Promontory was founded in 2001 by Eugene Ludwig, who had headed one of America's primary bank-supervisory agencies. It grew first because of the slathering of new rules during the previous, Bush administration and then prospered, says Mr Ludwig, as this process expanded under Barack Obama.

Promontory has recently dabbled in software, but is best known for its employees' background and their capacity to provide expertise (its contention), contacts (its critics') or both. Either way, it is a profoundly human business. Watson, for all its charms, is not. Automation of financial institutions has long been a core business for IBM. It played a central role in the development of the ATM; its systems keep many banks and insurance companies around the world humming along. Aware that annual expenditure on regulation and compliance is vast—it reckons in excess of \$270 billion, of which \$20 billion is spent simply on understanding the requirements—it began work on adding this business to Watson in early 2015. Chief compliance officers and lawyers were interviewed to break down their tasks and needs.

The first area of focus was trading, which has the virtue of being both discrete and wildly complex. A pilot programme with half a dozen banks and three exchanges began in July, providing surveillance. A library of possible illicit schemes



When you've eliminated the impossible...

is fed into Watson, which can then evaluate trading patterns and communications ranging from overt messages to social media (voice analysis will be added in November). Scrutiny can extend to the network of people on the other end of trades in order to untangle complex relationships.

The next area is to provide clarity about rules. They are sorted by jurisdictions, institutional divisions, products and so forth, and then further broken down between rules and guidance. Watson is getting better at categorising the various regulations and matching them with the appropriate enforcement mechanisms. Its conclusions are vetted, giving it an education that should improve its effectiveness in the future. Promontory's experts are expected to help Watson learn. A dozen rules are now being assimilated weekly. Thousands are still to go but it is hoped the process will speed up as the system evolves. Ultimately, IBM hopes speeches by influential figures, court verdicts and other such sources will be automatically uploaded into Watson's cloud-based brain. They can play a role in determining what regulations matter, and how they will be enforced.

Global financial institutions provide an obvious market for these services, but so too do small, local ones that lack the scale to justify the cost of a team of legal experts. A third group is the regulators themselves, who often privately grouse about being bewildered by their own remit and distrust other regulators with overlapping briefs.

To some extent Watson's success depends on whether the rules are consistent, make sense and are fairly applied. At the very least, it will be able to highlight anomalies. If successful, Watson could shift legal authority from individuals to laws. That, of course, may be its greatest virtue. ■

Free exchange | Subtract and divide

Both economic hardship and racial divisions fuel support for Donald Trump

AMERICA'S presidential contest offers voters a stark choice. Hillary Clinton represents continuity with the Obama administration—not a bad pitch to voters, given low unemployment, steady job growth and a recent upturn in the rate of increase of real incomes. In the opposite corner is Donald Trump, standing on a radical platform of protectionism, draconian immigration restrictions, massive defence spending and construction of a big, beautiful wall along the Mexican border. Mr Trump's dangerous economic nationalism demands an explanation. Is he the predictable consequence of years of hardship for many Americans?

Two broad theories vie to explain Mr Trump's ascent. One camp sees him as an inevitable backlash against economic-policy priorities that have left many Americans behind. As America and the world have grown more economically integrated, growth in household incomes has stagnated and inequality soared. The costs of freer trade were borne most acutely in Southern and Mid-Western manufacturing towns exposed to competition from cheap Chinese imports. A series of recent papers shows that the most affected labour markets have experienced a long period of depressed wage growth, low rates of labour-force participation and high unemployment. These trends carved out a political niche ready to be filled by someone like Mr Trump.

There is another camp, however, which suggests that worker anxieties, though real, have little to do with Trumpism. Instead, his rise is the product of a Republican electoral strategy of maximising turnout among older white voters. An effective way to achieve this goal, goes the argument, is to stoke their racial fears; the white, non-Hispanic share of the population has fallen from nearly 90% in the 1940s to about 60% now and will continue to drop, fuelling unease among older whites. Mr Trump's winning message is about ethnic demagoguery and little else.

Some evidence supports a race-based interpretation of the election. Mr Trump has often been openly hostile to racial and religious minority groups. Race and religion strongly predict whether someone supports or opposes Mr Trump; a vast majority of Americans who are black, Hispanic, Jewish, Muslim or atheist favour Mrs Clinton. Income, on the other hand, is less predictive. A recent analysis of polling data by Jonathan Rothwell, of Gallup, finds that Mr Trump's supporters tend to come from the middle of American economic distribution rather than the very bottom (or top). "Racial isolation", or living in communities with

comparatively little contact with other races, is strongly predictive of support for the Republican nominee. Places with high levels of exposure to trade and immigration, in contrast, are not areas of traditional Republican support.

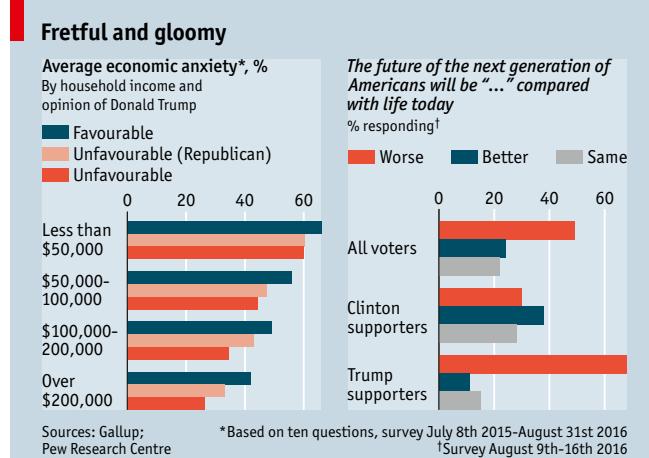
It would be wrong, however, to dismiss the role of economic anxiety. Mr Rothwell notes that Trump-backers, including the better-off ones, are far more likely to report worries about financial insecurity than those who do not favour Mr Trump (see chart, left panel). Though his followers tend to enjoy higher rates of employment and higher incomes than people of similar education levels who do not support Mr Trump, they look economically vulnerable in other important ways. Mr Rothwell finds that they disproportionately live in areas where white mortality rates and dependence on government support seem higher than the norm, and where rates of social mobility are lower. It is not surprising, then, that whereas Mrs Clinton's supporters reckon future generations of Americans will be better off than those living today, Mr Trump's backers are far more gloomy (see chart, right panel).

Considering recent polling out of context can also be misleading. James Kwak, of the University of Connecticut, argues that Mr Trump's supporters have relatively high incomes on average because such people tend to vote Republican. Yet among those voters earning less than \$50,000 a year, Mr Trump is polling 17 percentage points above the level achieved by Mitt Romney, the Republican candidate for president in 2012.

Global fundamentals

Economic and racial explanations of political shifts need not be mutually exclusive. In a paper in 2014 analysing political polarisation in America, David Schleicher of Yale University points out that shifts toward "radical and fundamentalist opinion" are by no means confined to America. The phenomenon is also seen across Europe and elsewhere, suggesting global trends are at work, not just a Republican electoral strategy. Moreover, economic trends seem to make issues of race or nationality more salient. A paper published in April found evidence for this dynamic in American cities exposed to import competition. It found that voters in trade-exposed labour markets tended to replace their moderate representatives with left-wing Democrats or right-wing Republicans, depending on whether whites were a minority or a majority of the local population, respectively.

Economic hardship appears to strengthen the ideological fringes. Yet why should it also widen racial divisions? Perhaps economic insecurity simply generates a need for scapegoats, and minorities are easy targets—especially if they rely on taxpayer-financed benefits. That chimes with the experience of places heavily exposed to imports, where labour-force participation has fallen and reliance on government disability insurance has risen. And at the same time as more people are relying on handouts, America has become less white. Studies show that support for redistribution is weaker where racial and ethnic diversity is greater. Mr Trump tends to draw support from places with high levels of government dependency. Given a pool of racial unease, economic woes that increase reliance on the social safety-net may also enhance the attraction of the politics of racial resentment, and hence of Trumpism. ■



*Studies cited in this article can be found at www.economist.com/FE42



Making sex cells from body cells

The ancestor's tail

An experiment on mice offers hope to infertile people

ISSUES of safety aside, the very idea of cloning people—of taking, say, a cell from the skin of a man or a woman and growing it into a new human being with exactly the same genes as its progenitor—is anathema to many. But what about taking such a cell and creating from it an egg or a sperm that can be used for *in vitro* fertilisation? That would enable infertile men and women, and gay couples, who wanted to raise children genetically related to both parents to do so, rather than relying on the assistance of an unrelated egg or sperm donor to start a family.

In people, this is not yet possible. But Katsuhiko Hayashi and his colleagues at Kyushu University, in Fukuoka, Japan, have done the equivalent in mice. As they report this week in *Nature*, there are animals now scampering around cages in their laboratory whose maternal antecedents are egg cells derived not from the ovaries of their mothers, but from body cells (known as somatic cells), in this case from those mothers' tails. Nor does it stop there. In the past, using a slightly different technique from the one that he describes this week, Dr Hayashi has bred mice using somatic-cell-derived sperm.

Both of these sorts of animals have gone on to breed successfully. So, not only are Dr Hayashi's creations viable, they are fertile. Moreover, in principle—though he

has not yet done so in practice—he could fertilise his somatic-cell-derived eggs with his somatic-cell-derived sperm to create an entirely somatic-cell-derived adult animal. He might even, if he so chose, be able to derive sperm and eggs from the same animal, for the processes do not require that the eggs be made from female cells and the sperm from those of males. That would create a mouse which had only one parent, yet was not a true clone of that parent because the sex cells which united to form it would both have undergone the internal genetic mixing that biologists call meiosis.

One step back, two steps forward

Dr Hayashi and his colleagues do not create their eggs and sperm directly from somatic cells. First, those cells have to undergo an alchemical transformation to rejuvenate them into an ancestral form known as a pluripotent stem cell. Mature body cells (eggs and sperm included) derive from progenitors, known as stem cells, that have the power to divide, proliferate and eventually to turn into particular cellular components of a particular tissue. Pluripotent stem cells are, in turn, the ancestors of these tissue-forming stem cells.

In nature, pluripotent cells are restricted to embryos. The first students of cloning and its related arts had therefore to "harvest" them for their experiments—which

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created ethical dilemmas when the embryos involved were human. Such harvesting is no longer necessary. Instead, for mice, men and many other species, pluripotent cells can be made to order by taking an ordinary body cell and adding to it active copies of the four genes which encode the genetic switches that cause pluripotency.

It was such "induced" pluripotent cells that formed Dr Hayashi's starting-point. As he had discovered in his experiments creating sperm, judicious application of a molecule called bone morphogenetic protein 4 turns pluripotent cells into primordial germ cells—the type of stem cell ancestral to both sperm and eggs. Which of these a primordial germ cell goes on to become depends on the sex of the tissue it finds itself in. In those earlier experiments Dr Hayashi injected them into the testes of newly born mice, thus persuading them to become sperm when they underwent meiosis. This time he used ovarian tissue extracted from mouse fetuses to induce egg-forming meiosis.

To keep track of this process, and to avoid confusion, Dr Hayashi took the cells used to make the eggs from a dark-eyed mouse. He then fertilised the eggs he had created *in vitro* with sperm from a pink-eyed male, and also implanted the resulting embryos into pink-eyed females. To everyone's delight the pups born of this arrangement had dark eyes (see picture above)—caused by a gene that could have come only from the tail-derived eggs. Furthermore, as had happened before with the somatic-cell-derived sperm, these pups developed normally into adults and were themselves able to reproduce.

All this is a long way from enabling scientists to perform the same trick with people. First and foremost, using human em-

▶ bryonic tissue in any part of the process is out of the question for ethical reasons. That means someone needs to work out exactly which of the chemicals in testes and ovaries tell primordial germ cells whether to become eggs or sperm. Second, at the moment the process is extremely inefficient. Only 3.5% of Dr Hayashi's tail-derived embryos grew into pups, compared with about 60% of embryos from normal

eggs. Third, though mice have proved useful models for examining many questions of human medicine, mere models is all they are. A lot more research will be needed before anyone (or, at least, anyone with any ethical sensibility) tries something similar on a human being. If and when that day comes, though, the unwillingly childless around the world will be watching with great interest. ■

his work from these and other studies is the speed with which he and his team can analyse large data sets such as those from Flickr. The conventional approach is to break such data into chunks for analysis—dividing them up geographically on a grid, for example, or temporally, into days. Researchers then search for patterns by comparing these chunks with each other. The problem is that more detailed analysis requires more such chunks, and the computing time needed to calculate the relationships between them thus spirals.

To avoid this, Dr Silva turned to computational topology—a field that finds algorithms to describe complicated shapes and surfaces as simply as possible. (In this context, “shapes” and “surfaces” are wider ranging than a layman might think, because they can have more than three dimensions.) These algorithms let computers create, analyse and manipulate such multidimensional shapes quickly.

Computational topology is already employed in tasks as diverse as loading goods at dockyards and studying the way protein molecules fold, so many topological algorithms already exist. To take advantage of this trove, Dr Silva's team had to represent their Flickr data as a topological shape. They did so by calculating, from the number of photos taken there, the level of “activity” at each point in an area of interest. They plotted the results on a grid, to create a three-dimensional representation of tourist activity across a city at a given moment—then added a fourth dimension by repeating the process for every hour of data available. The result was a topological surface whose peaks, troughs, furrows and holes—which could be identified by their algorithms—corresponded to changes in activity over time and space.

This approach means not only that Dr Silva's programs whizz along much faster than conventional software, but also, because they do not have to filter the data or use a small subset of it, they see patterns that might otherwise slip through the net. Users can compare years' of Flickr data from whole cities in minutes, thus taking their urban pulses. Indeed, Dr Silva hopes to make these pulses still more accurate, and also extend their analysis beyond tourism, by tapping other sources of information, such as Twitter and Instagram.

Social pulse-taking is not mere theory. Kohn Pedersen Fox Associates (KPF), a firm of architects based in New York, is collaborating with Dr Silva on several as-yet undisclosed projects. KPF's past work includes the Shanghai World Financial Centre, the World Bank's headquarters in Washington, DC, and a recent revamping of Covent Garden, an old fruit and vegetable market, in London. Whether the algorithms of computational topology would show any similarities between those locales is an intriguing question. ■

Urban planning

Listen to the music of the traffic in the city

Places, like people, have pulses—if only you know how to measure them

THE Rockefeller Centre sprawls across 89,000 square metres of midtown Manhattan. Curiously, Alcatraz, in San Francisco Bay, the island home of America's most famous former prison (see picture), has exactly the same area. That coincidence aside, few might imagine the manicured roof gardens and art deco office buildings of the one have much in common with the brutal crags and blockhouses of the other. But they do. For research by Claudio Silva of New York University and his colleagues suggests that the two have a striking resemblance when it comes to the daily ebb and flow of tourists, as judged from the level of activity on Flickr, a photo-hosting site. Dr Silva thinks the peaks and troughs of Flickr activity that his research has discovered in this and other cases are a measure of an area's “urban pulse”. If so, the Rockefeller Centre and Alcatraz share a pulse.

On October 25th, at a meeting of the Institute of Electrical and Electronics Engineers in Baltimore, Dr Silva plans to present the idea that, like real pulses, urban pulses have useful diagnostic and prognostic properties. He thinks his system to analyse them might help urban planners and architects identify footfall and other patterns that emerge from past developments, and make better choices in future.

At the moment, when such planners try to understand patterns of activity in a district, they do so by conducting surveys, counting the number of people passing important road junctions and measuring traffic volumes. This, though, takes years. One way to speed up the process is to use the reams of data now available from social-media platforms. Flickr, for example, records the location and time of every photograph uploaded to the site. It is especially popular with holidaymakers. Thus, by using the Flickr data as a surrogate measure of their activity, Dr Silva's program can show in minutes how tourists are moving



Like the Rockefeller Centre, but different

through a district, and may also highlight areas of activity that conventional methods have missed.

Dr Silva's work is part of a broader trend, dubbed “smart cities” by some, towards using the vast amounts of data generated by the inhabitants of urban areas to make them better places to live. Carlo Ratti and his colleagues in the Senseable City laboratory at the Massachusetts Institute of Technology (MIT), for example, used mobile-phone records, and also traffic data from 500 pressure sensors on roads, to help guide construction of the new metro system in Saudi Arabia's capital, Riyadh. And César Hidalgo and Elisa Castañer, who work at MIT's Media Lab, last year published an algorithm to recommend which types of new business were needed in particular districts, based on the locations of over 1m cafés, bars, shops, schools and so on in 47 American cities.

Dr Silva says that what distinguishes

Anti-malaria drugs

Do you yield?

How to increase the supply of artemisinin

ONE of the most valuable weapons in the war on malaria is artemisinin, a drug derived from the leaves of sweet wormwood. Its discovery, inspired by wormwood's use as a herbal remedy for the disease, brought Tu Youyou, the scientist responsible for making it, the first Nobel prize for medicine awarded to a researcher working in China. Artemisinin has, though, proved stubbornly difficult to synthesise chemically, meaning that extract-of-wormwood is still the main source of supply. That is a problem, for wormwood plants take between 190 and 240 days to mature. Moreover, yields are not huge—a mere half a milligram per gram of dried wormwood leaves. Alternative sources would thus be welcome.

One is to engineer relevant genes into yeast cells. That works, but only up to a point. The commercial process based on this method turns out artemisinic acid, not artemisinin. Further chemical treatment is needed to produce the drug, and the end product has had difficulty competing with artemisinin derived from plants. However, Shashi Kumar of the International Centre for Genetic Engineering and Biotechnology, in New Delhi, is proposing a different approach, using a plant instead of a fungus. As he reports in *Molecular Plant*, he has engineered tobacco to make artemisinin faster and better than wormwood can.

Tobacco is a well-understood plant, often used in genetic-engineering experiments. Indeed, Dr Kumar himself had tried once before to persuade it to synthesise artemisinin. He did this by adding to its chloroplasts 12 genes for enzymes that govern the biochemical pathway which produces the drug. That he was able to do so is because chloroplasts, the sub-cellular structures which carry out photosynthesis in plants, are the descendants of once-free-living photosynthetic bacteria that teamed up with an ancestral plant cell around a billion years ago. They thus have their own genomes. That he wanted to do so is because the precursor molecules for part of the photosynthetic apparatus (which are abundant in chloroplasts) are also precursors of artemisinin.

Unfortunately, this early attempt, written up and published in 2014, did not work. It produced plants with stunted leaves and artemisinin yields of only 0.1 milligrams per gram of dried tissue—a fifth of that from wormwood leaves.

Dr Kumar suspected the problem was

that putting genes for the whole artemisinin pathway into the chloroplasts had diverted too many of the precursor molecules away from photosynthesis, thus stunting the leaves. He therefore decided to spread the burden by inserting six of the genes into the cell nucleus instead. That worked. All of the tobacco plants with the new genetic layout grew normally. Moreover, they produced 0.8 milligrams of artemisinin in each gram of dried leaves after being raised for a mere 60 days.

Dr Kumar also questions whether extracting the drug from the leaves is really necessary. Past research of his has suggested some plant cells protect pharmaceutical chemicals from acids and enzymes in the stomach. That makes it easier for such chemicals to reach the intestine—the part of the gut where they are absorbed.

To test this herbal approach, he infected some mice with malarial parasites and then dosed them with either artemisinin

extracted from wormwood or an equivalent dose in the form of leaf tissue from his engineered tobacco plants. He found that, after 15 days, parasite loads in animals fed the leaves were two-thirds of those in animals dosed with pure artemisinin.

Confirming that result, then testing human volunteers to see if the same is true in people, will take time, and is likely to be controversial. Dr Kumar plans to try—though he will use genetically engineered lettuce rather than tobacco, or even wormwood, both of which are too toxic. But many, probably most, doctors are suspicious of herbal remedies in principle, because it is hard to control their quality in the same way as a factory-made chemical. Dr Kumar's findings are, nevertheless, interesting. And regardless of whether his experiments in herbalism lead anywhere, his genetic engineering of artemisinin-producing tobacco plants is a result that deserves close scrutiny and follow-up. ■

Exploring Mars

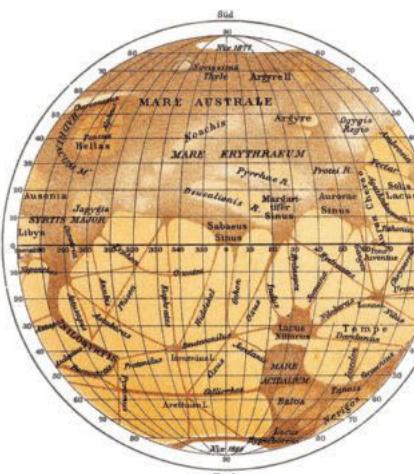
Triumph or disaster?

Well, neither actually

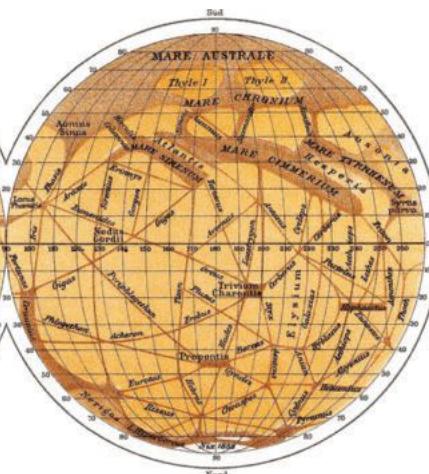
THAT space flight is as much show business as science was confirmed on the evening of October 19th, when members of the ExoMars team put on the bravest of faces for a broadcast from their mission control in Darmstadt, Germany, about the arrival of the project's craft at Mars. ExoMars is a joint endeavour by Europe's and Russia's space agencies. If science were its only criterion, team members would have been cock-a-hoop. Their main research vehicle, the Trace Gas Orbiter (TGO), had successfully entered almost precisely its designated orbit around Mars, and looked well

placed to do its job of mapping concentrations of the minor chemical components of the Martian atmosphere, which is composed mostly of carbon dioxide. This is an important task, for one such component is methane—and that may be a sign the planet harbours life.

Instead, there were the flat, controlled voices of those trying to come to terms with disappointment, while hoping against hope that their worst fears are wrong. The reason was that the other part of the mission, a cone-shaped landing craft called Schiaparelli, had abruptly gone si- ►



Canali grandi



▶ lent on its way to the surface. Schiaparelli's only scientific payload was a small weather station that would have run out of battery in four days. The craft's real purpose was to test descent and landing technologies. And test them it did, apparently to destruction. But a brave little lander is always going to trump a clunky workhorse satellite in the public imagination—so, unless Schiaparelli does start talking again (which, at the time *The Economist* went to press, it had not), what is actually a pretty good success will seem a disappointment.

The search the TGO will engage in is also, in its way, based on a lingering hope—one which started, albeit accidentally, with the man the landing craft was named after. This hope is that Mars is inhabited. When Giovanni Schiaparelli, a 19th-century Italian astronomer, drew the first maps of Mars (pictured on previous page), he described some linear features on them as *canali*. This word can translate into English either as channels (natural) or as canals (artificial). Schiaparelli had intended the former, but the ambiguity spawned the romantic idea that Mars was home to a dying civilisation desperately piping water from the planet's polar ice caps.

There are no canals on Mars, and certainly no dying civilisation. But the hopeful suggest that there may be life there of the microbial sort—and that if there is, it may explain the traces of methane in the planet's atmosphere. That gas's source is certainly a mystery, for methane is broken down rapidly by ultraviolet light, and this reaches Mars from the sun in abundance because the planet's atmosphere is too scanty to block it. That means any methane in the Martian air should quickly disappear. But it does not. This suggests something is replenishing the gas. The process involved may be geological. But maybe, as is the case for most of the methane in Earth's rather thicker atmosphere, it is actually biological.

One of the TGO's jobs is therefore to map methane concentrations in the Martian atmosphere. That may point to promising, methane-generating landing spots for a follow-up probe—for ExoMars is a mission in two parts. The second act will be a Russian-built lander and a European rover. These are planned to arrive in 2021. The rover will be equipped to analyse the Martian regolith (the layer of rock fragments on the planet's surface that passes for soil) for signs of biological activity.

To do that, though, it will have to land successfully. And, as Schiaparelli's apparent fate shows, landing on Mars is hard. With luck, data the probe broadcast on its way down, before silence enveloped it, will tell engineers what went wrong, and help them stop the same thing happening to the next lander. In the meantime, TGO will continue to orbit, and the methane data will flow in. ■

Sexual cannibalism

Nature's cruellest one-night stand

Male dark fishing spiders sacrifice themselves for the good of their offspring

ANIMAL mating can be a cruel and unusual process. Male bedbugs inseminate females by piercing their bellies and depositing sperm inside their paramours' body cavities. Male chimpanzees and lions kill the suckling infants of females before mating with them, as this brings those females more rapidly into oestrus. Male dolphins routinely engage in rape. Nor are aggressive mating practices perpetrated solely by males against females. In many species of insects and spiders, females eat their partners after sex.

Such cannibalism clearly brings advantage to the female, who gets an easy snack. But the benefits (if any) for the male are less obvious. That there might sometimes be such benefits, though, is an idea that intrigues zoologists—and so, from time to time, some of them look into the matter.

The latest to do so are Steven Schwartz of Gonzaga University, in the American

state of Washington, and Eileen Hebets of the University of Nebraska-Lincoln. Dr Schwartz and Dr Hebets note that, after mating, the males of one species of arachnid, the dark fishing spider, spontaneously die and thus ensure that they get eaten. This is in contradistinction to the behaviour of most male spiders, who usually attempt at least some sort of a getaway, even if it is futile. And, as the two researchers report in a forthcoming paper in *Current Biology*, there is, indeed, method in the male fishing spider's suicidal madness.

Dr Schwartz and Dr Hebets came to this conclusion by collecting male and female dark fishing spiders and subjecting them to an experiment. In one group of the animals, females were allowed, as per normal, to eat their deceased partners after mating. In a second, the males' bodies were removed and the females ate nothing. And, in a third, the males' bodies were substituted by a cricket of about the same weight as a male spider.

Not surprisingly, the offspring of females in the first group—those allowed to cannibalise their partners—were bigger, more numerous and longer-lived than those of females in the second. But they were also bigger, more numerous and longer-lived than those of females in the third, cricket-fed group. In fact, the offspring of the third group did no better than those whose mothers had received no extra nutrients at all. Evidently, something in male fishing-spider flesh is particularly advantageous for the production and development of young.

Exactly what this something is, Dr Schwartz and Dr Hebets cannot yet say. But they do have a theory about what is going on. The fact that the male spider dies after mating, and thus makes sure his body is available as a feast for his mate, suggests the mysterious extra nutritional value of that body has evolved specifically for the purpose of nurturing the eggs that will turn into his offspring. Possibly, in the past, females have been so good at catching males that few survived to father a second brood anyway. In that case, any adaptation which enhanced the number and fitness of a male's first-born clutch, even at the expense of his life, would be favoured by natural selection. Whatever the truth, though, the fate of the poor male dark fishing spider is surely the cruellest and most unusual one-night stand of all.



Gone fishin'



The meaning of jihad

Men of war

What jihadists believe, and why it matters

WHAT IS jihad? It defines this age of violent Islamist radicalism, yet the meaning of the word and its relevance for modern-day Muslims are both contested. The term derives from *jahada*, an Arabic word meaning to labour, struggle or exert effort. Many Muslims emphasise “the greater jihad” of personal moral struggle over the “lesser jihad” of military combat; most authorities say that military jihad can be declared only by a rightful ruler—the caliph (a role abolished since 1924), or at least the leader of a Muslim country.

For the likes of al-Qaeda and Islamic State (is) real jihad is fighting for the sake of Allah. It is not only equal to the five traditional pillars of Islam—the testimony of faith, regular prayer, giving alms, fasting during Ramadan and the pilgrimage to Mecca; it is, in fact, the most important after the declaration of faith. It is the ultimate means of defending and exalting Islam; an obligation upon the individual, with no need for higher authority. Ayman al-Zawahiri, the co-founder and current leader of al-Qaeda, cites Ibn Taymiyyah, a medieval scholar, as saying that jihad “takes precedence over feeding the hungry, even if the hungry would starve as a result”.

Most books on jihadism focus on what militant groups do, as well as the history of jihadism and the political context in which it evolved. By contrast “Salafi-Jihadism”, by Shiraz Maher of King’s College London,

Salafi-Jihadism: The History of an Idea.
By Shiraz Maher. Oxford University Press;
292 pages; \$29.95. Hurst; £25

stands out as an excellent and original account of what jihadists actually think. Mr Maher goes well beyond previous works, such as “Jihad” by Gilles Kepel or “The ISIS Apocalypse” by William McCants, in setting out a taxonomy of jihadists’ system of beliefs. It will be a must-read work in the study of radicalism.

The violence of jihadists “is neither irrational nor whimsical”, argues Mr Maher. The tenets of their ideology can be traced to mainstream Islamic thinking, although “the contemporary Salafi-Jihadi movement has interpreted and shaped them in unique and original ways”. This gives jihadism unique power. Every act, no matter how vile, finds some kind of justification in tradition; any denunciation by Muslim moderates is dismissed as, in effect, renouncing a part of true Islam.

Jihadists are a subset of the puritanical Salafist movement that seeks “progress through regression”, as Mr Maher puts it. The movement aims for perfection by following the example of the first three generations of Muslims known as *al-salaf al-salihin*, starting with the companions of the Prophet Muhammad. These are deemed to embody the golden age, when Islam was

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spread by both the word and the sword. Mr Maher divides Salafists into three broad categories, based on their attitude to temporal authority: “quietists”, for example Wahhabi clerics who give discreet advice to Saudi rulers; “activist-challengers”, who agitate publicly (and sometimes violently) for governments to reform; and “violent-rejectionists” who regard the very notion of modern states as a heresy.

The rejectionists are the focus here. Mr Maher sets out five “essential and irreducible features” that define Salafi-jihadism. Tawhid (the oneness of God) and *hakimiyya* (securing God’s sovereignty in the political system) seek to promote their form of Islam. The others seek to defend Islam, or so jihadists claim: jihad, *takfir* (a form of excommunication) and *al-wala wal-bara* (to love and to hate for the sake of God).

These concepts, particularly the laws of jihad and *takfir*, have evolved with successive conflicts. The jihad in Afghanistan in the 1980s was regarded, uncontroversially, as a defensive war to protect a Muslim country against the atheist Soviet communist invader. But when al-Qaeda turned to attack America, on the grounds that it was responsible, directly or indirectly, for countless assaults upon Islam, al-Qaeda had to overcome objections to the killing of civilians. Jihadists developed a dubious doctrine of vicarious liability: democracy, which they declare is an abomination for Muslims, taints all citizens of Western countries with the sins of their rulers because they vote them into office. Almost anything, including the use of weapons of mass destruction, is justified as retribution against their enemies—except, perhaps, for acts expressly forbidden by Islam, such as causing death through sodomy.

When it comes to attacking the governments of Muslim-majority states, or rival

► groups, jihadists have stretched the rules of *takfir* (declaring a Muslim to be a *kafir*, or non-believer) almost beyond all recognition. In the name of defending Islam, jihadists have killed more Muslims than even the hated "Crusaders and Jews". Is's caliphate is odd, too: an act of modern state-building that also serves the eschatological purpose of hastening the End of Days.

Mr Maher packs a lot of valuable but complex information into his book. Here and there, it could have explained concepts more fully. The section on Ibn Taymiyyah is too skimpy, given his importance. Some might level a second criticism: given that is, in particular, seems more concerned with the theatre of gore than with Islamic jurisprudence, does jihadist ideology matter? The jihadists' ability to survive decades of onslaught, by the West and local regimes, suggests their thinking is resilient and appeals to at least a significant minority of Muslims. Mr Maher recently answered the question thus: "Did every Nazi camp guard read 'Mein Kampf'? No. Did Hitler's ideas in the book matter? Of course they did." ■

Migrants

Making profits out of hope

Migrant, Refugee, Smuggler, Saviour. By Peter Tinti and Tuesday Reitano. Hurst; 331 pages; £20

A DEFINING image of the new wave of globalisation—and the attempts to hold it back—is a newly arrived migrant on a European beach, clutching a mobile phone and hoping for a new life. Never before have rich countries raised their walls so high to keep out refugees and the poor. Yet never have people tried so hard to leap over them anyway.

The most important causes of this migration are wars in places like Syria and Somalia, and demography and poor prospects across Africa and the Middle East. New enablers are vital too: mobile phones, the internet, WhatsApp and Facebook. What is less understood is how business has changed this world. In "Migrant, Refugee, Smuggler, Saviour", Peter Tinti and Tuesday Reitano, both researchers, explain how the numbers of people arriving in Europe have been made possible because of the emergence of innovative and opportunistic entrepreneurs.

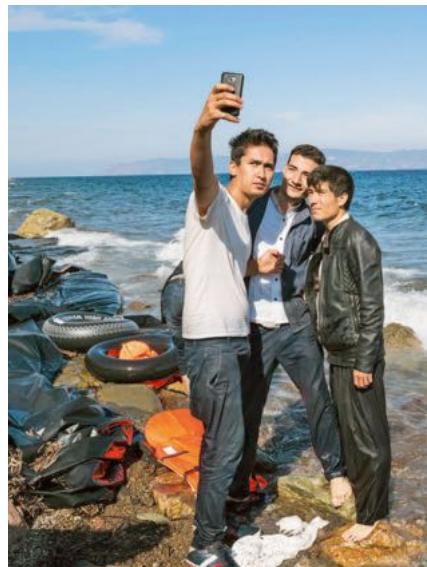
People-smuggling is just another part of the vast decentralised organised-crime economy. Those in the trade are not necessarily evil or part of a grand conspiracy: they are ordinary folk drawn into organised crime by profits and the prospect of a

better life. And policies, particularly in Europe, that are intended to stop migration often have the effect only of rendering it more exploitative and dangerous.

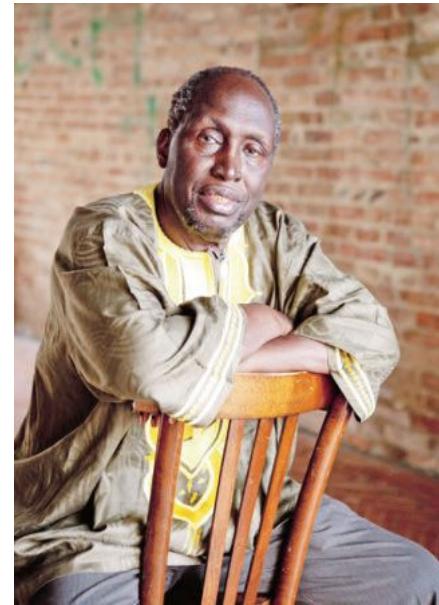
To make this argument, the authors leap around, with vivid reporting from Niger, Libya, the Balkans, Turkey and Egypt, among other places. Their primary focus is not the migrants, but the smugglers—the people who make it possible to get to countries without a visa or a passport. Crackdowns and demand stimulate supply. Both in Turkey and Libya, it was Syrian refugees—and their ability to pay tens of thousands of dollars—that drove smugglers to develop sophisticated systems. Some refugees are even given bar codes to scan when they arrive in Europe, which help release their payments from escrow. These were built on existing systems, particularly the *hawala* networks of informal money transfer used by merchants across the developing world.

The book's key contention—that tighter rules inspire entrepreneurs to create new, more dangerous and criminal smuggling routes—is persuasive. But it could be more so. Although the blistering criticism of European policy seems right, a section at the end which brings in American policy is weaker. The authors are certainly right that crackdowns on the border with Mexico have created business for criminal cartels. But they are on weaker ground when they suggest it has not deterred migrants. Partly for economic reasons, more Mexicans return from America than go the other way.

That sort of outcome may eventually be the result of Europe's shift against migrants too. People-smugglers may well be saviours to some of their clients. But they are exploiters of plenty of others. In the long run death and danger does deter. The more criminal the networks are, the more they will be shunned. ■



On our way



Ngugi wa Thiong'o

A song of Africa

Birth of a Dream Weaver: A Writer's Awakening. By Ngugi wa Thiong'o. New Press; 238 pages; \$25.95. Harvill Secker; £14.99

IN THE latest volume of his memoirs, Ngugi wa Thiong'o advocates a certain revisionism about his native Kenya. In a brief preface titled "Note on Nomenclature" he asserts that the British-termed "Mau Mau" rebellion will instead be referred to as the "Land and Freedom Army", the two main goals for those who rose up against the British colonial presence in Kenya. According to Mr Ngugi, the term "Mau Mau" comes from a corruption of the movement's motto: "Oath of unity for (demanding) Land and Freedom". It was the colonial state that opted instead, he says, to refer to the soldiers with the "meaningless mumbo-jumbo" of "Mau Mau" in order to obscure both their goals and their purpose.

The uprising began in the early 1950s, when Mr Ngugi was still a teenager. It grew from the armed struggle for liberation by the Kikuyu and other tribes, but was characterised by the colonial power as "mass mania manifesting itself in violence and witchcraft", what Elspeth Huxley, the white settlers' literary spokesman, called the "yell from the swamp". The rebellion would have a momentous impact on the novelist's future work.

Mr Ngugi's unstated goal throughout this book is reclamation, not just of the Land and Freedom Army, but of much of the colonial endeavour in east Africa. Over and over again he condemns the denigra-

tion of Kenyans as "primitive" and "zoological" and goes on to present a clearer rationale for the Kikuyu people's desire for freedom. Mr Ngugi's own wish to wrest the narrative away from the colonial thread comes at a cost, though; at times the story of his development as a thinker and writer is muddled and seems secondary to the broad political and social upheavals happening across the region.

Mr Ngugi attended the missionary-run Alliance High School near Nairobi and, later, Makerere University in Kampala, Uganda. It was here that he began writing plays and novels against colonial oppression in east Africa. The motto of Makerere University was "to seek the truth", Mr Ngugi points out, but his accounts of the censorship and bigotry of that time are shocking.

He describes attending the Conference of African Writers of English Expression, which was held at Makerere in 1962, near the end of his time as a student. Mr Ngugi was selected to participate alongside such writers as Kofi Awoonor, Christopher Okigbo, Chinua Achebe, Wole Soyinka—Africa's first Nobel laureate in literature—and Langston Hughes, an American poet.

The conference opened with a discussion on the nature and meaning of "African literature", and its thematic debates have gone on to shape writing across the continent for the past 50 years. One heated point throughout was language itself, with Mr Ngugi arguing that African novels should be written in African languages, an idea he would promote two decades later in a collection of essays entitled "Decolonising the Mind." He published several novels in English and then brought out one of the first novels ever written in his native language of Gikuyu, which he later translated into English.

During the Makerere conference, Mr Ngugi offered Hughes a tour of the city and was given editorial advice by Achebe on the manuscript that would become his first novel, "Weep Not, Child". The Heinemann African Writers series, for which Achebe was an editorial adviser, published the novel in due course. Later it would be revealed that, unbeknown to many of the participants, the CIA had been the original funder of the Makerere conference in an effort to influence the eventual decolonisation of east Africa.

Mr Ngugi refers to Makerere as "hell in paradise". Idi Amin, who seized power in Uganda in 1971, would send a generation of writers and thinkers into exile abroad. Yet the violence and depravity of Amin's regime—including the decapitation of his captives and the subsequent feeding of their bodies to crocodiles—should have come as little surprise. Amin once served the British in Kenya as a member of the King's African Rifles. He worked as a head-hunter, in the literal sense, fighting a rebellion once called the "Mau Mau". ■

Latin American Modernism

A time of gifts

A donation to MoMA will transform the study of Latin American Modernism

LATIN AMERICAN art has long been a feature of the collection of the Museum of Modern Art (MoMA) in New York. Ever since 1931, when Alfred Barr, the then-director, followed an exhibition of Henri Matisse with a one-man show of the Mexican modernist, Diego Rivera, the museum has collected design, photography, film, architectural drawings, paintings and sculpture from the region. In 2014 it put on the first American retrospective of Lygia Clark, a radical Brazilian who died in 1988,

bringing together 300 works grouped around three themes: abstraction, Neo-Concretism and what was termed the "abandonment" of art. Now the museum can do even more, thanks to a donation from an important private collector.

The gift of 102 works comes from Patricia Phelps de Cisneros, a MoMA trustee who has been buying art for more than half a century. The family has already given the museum 40 works. This most recent donation will increase MoMA's holdings of Latin American paintings and sculpture by half as much again. It also includes plans for a Cisneros Institute to be opened in MoMA's midtown Manhattan campus, which will focus on research, conferences and publications on art from Latin America. "It's the most important gift we've ever had," says MoMA's director, Glenn Lowry, "And in terms of size it's the biggest."

The seed of the idea was sown in the ►

Fiction from Israel

Delusion chronicle

Good People. By Nir Baram. Translated by Jeffrey Green. Text Publishing; 421 pages; \$15.95 and £10.99

"OUR job is to write a story," a Soviet agent tells a Nazi collaborator early in 1941, shortly before Hitler's opportunistic pact with Stalin ended in the German invasion of Russia. "If we believe in it, maybe others will too." The two years of Nazi-Soviet co-operation after 1939 prove that the bloodiest regimes of modern history could spin any yarn and forge any myth. In "Good People" an Israeli novelist, Nir Baram, asks what kind of people would choose to serve these empires of falsehood with their eyes open and their minds sharp.

Not monsters or even cynics, he answers in a pacy, plot-heavy novel of dramatic events and big ideas, but gifted storytellers fuelled by ordinary motives of love, loyalty or ambition. Blessed or cursed by the "elasticity of the human soul", they wield this suppleness of spirit as "the hidden hand that smoothed out every wrinkle in the flag of truth".

Born in 1976 into a family long established in Jerusalem, the son and grandson of Labour Party ministers in Israeli governments, Mr Baram seems an unlikely apologist for the compromises that might lead bright young folk to work for the architects of terror and genocide. "Good People" traces the parallel tracks of its fictional protagonists, a German advertising guru called Thomas Heisberg, and a Russian-Jewish aspiring poet,



Sasha Weissberg, with a keen-edged surgeon's knife. Yet, the reader is made to feel pity for their all-too-human fate.

The "perfect impostor", Thomas switches from PR wizardry for an American firm in 1930s Berlin to ideological mumbo-jumbo on behalf of the German occupiers in Poland. Sasha's mildly dissident parents are seized by Stalin's secret police and sent to the gulag. To save her twin brothers, she agrees to edit the confessions tortured out of prisoners into "a complete, coherent and convincing story". With cunning and verve, Mr Baram brings these virtuosi of the lie together in Brest-Litovsk as the sham alliance between their tyrants collapses. Jeffrey Green's translation does page-turning justice to the progress of "a pair of talented forgers" whose artistry abets the worst crimes of the century.

► first week of Mr Lowry's directorship in 1995, but it was not until nine years ago that the two began discussing specifics. Mrs Cisneros offered the museum anything it wanted from her collection. The curators focused on geometric abstraction, a movement that spread in the 1940s, and evolved in four countries—Brazil, Venezuela, and the Río de la Plata region of Argentina and Uruguay—into an aesthetic all of its own. Artists such as Clark, Hélio Oiticica, Lygia Pape, Jesús Rafael Soto, Alejandro Otero and Tomás Maldonado have long been regarded as modernists, but it is only in the past decade or so that their work has been studied seriously alongside that of European and American artists. “A whole chapter of international modernism is revealed in these works,” Mr Lowry says.

The Cisneros gift includes work by 37 artists, of which 21 are entering MOMA’s collection for the first time, many of them little-studied. “What is truly important,” Mrs Cisneros says, “is that it allows us now to tell the story of geometric abstraction as a whole. It brings the movement together.”

The museum will arrange an exhibition of the Cisneros gift after its new extension is opened in 2019. It will also allow the museum to reassess its own modernist collection. “Our interest from the outset is about the ongoing dialogue between different artists who were grappling with similar sets of problems all over the world,” says Mr Lowry. The museum has important holdings of works by Jackson Pollock, Francis Bacon and Willem de Kooning. “Now we can do a room devoted to Lygia Clark, Alejandro Otero or Willys de Castro. In fact, we can show de Castro’s ‘Modulated Composition, 1954’ alongside the Piet Mondrian that inspired it. Because we own that Mondrian.” ■



Music from heaven

ody revealed to him by Schubert in a dream. Knowing these things changes the way people listen.

But Mr Isserlis, who has just republished Schumann’s “Advice to Young Musicians” (including some new advice of his own) is much more than a musicological sleuth: he is an acclaimed and a much-sought-after soloist. He also runs festivals, is artistic director of the International Musicians’ Seminar in Cornwall and champions music he regards as underrated. His children’s books about composers reflect a passionate commitment to music education. Few classical musicians can match his influence.

Now 57, and perennially sporting a wild mop of hair suggestive of a surprised hedgehog, he has a Puckish air. What makes him tick? The key lies in his childhood, and a family tree he is proud to share with Felix Mendelssohn and Karl Marx stretching back to a 16th-century Polish Talmudic scholar, Moses Isserles. His grandfather, Julius Isserlis, was a Russian-Jewish pianist-composer who studied with Tchaikovsky’s pupil, Sergei Taneyev. In the 1920s he was one of the first Soviet musicians allowed by Lenin to tour abroad (he never went back). Julius had a direct bearing on his grandson’s development. The cellist has recorded some of Julius’s charming, late-Romantic music, and the certificate of his gold-medal award from the Moscow Conservatoire now hangs on the wall of Mr Isserlis’s drawing room.

Music-making was central to Isserlis family life. Steven’s mother was a piano teacher, his father played the violin, and his elder sisters are professionals on the viola and violin respectively; taking up the cello, he completed a family ensemble which gave public performances. At 14 he

was taken out of school and spent three years sequestered in Scotland with a teacher who inculcated the basics of his immaculately expressive style; he then studied at the Oberlin conservatory. Mr Isserlis has always wanted to emulate the example of Daniil Shafran, a Russian cellist whose instrumental sound, he says, was like the voice “of a great Russian folk singer”.

As a cellist, Mr Isserlis was a slow starter: the emptiness of his engagement diary in his 20s made him wonder if he would ever have a career. But when John Tavener wrote a concerto entitled “The Protecting Veil” for him in 1987, its unexpected success catapulted him to fame. It came at a time when audiences had tired of atonal experimentalism, and Mr Isserlis’s glowingly melodious account of Tavener’s meditation on Greek Orthodox themes chimed happily with the popular mood.

Since then he has taken an unusually eclectic path, recording the concertos and sonatas of Mendelssohn, Grieg, Fauré and Walton on the one hand, while premiering works by cutting-edge contemporary composers on the other. The craggy Hungarian miniaturist, Gyorgy Kurtág, composed a solo elegy for Mr Isserlis to play after the cellist’s wife, Pauline, a flautist, died from cancer. Thomas Adès chose Mr Isserlis to premiere “Lieux retrouvés”, his most lyrical work to date. Yet Mr Isserlis is refreshingly ready to slaughter the avant-garde’s sacred cows, dismissing the late Pierre Boulez—the biggest such beast—as having had a deleterious effect on musical life. “Now there’s room for everybody, every style,” he proclaims cheerfully. “There’s never been such a great age for new music.”

Mr Isserlis is really a chamber musician, whether in period-instrument performance with Robert Levin and Andras Schiff, both pianists, in Romantic music with Mr Bell, or in new music (including that of an American composer, Lowell Liebermann) with his north London neighbour Stephen Hough, also a pianist. As a soloist, meanwhile, he acknowledges Bach’s six Cello Suites as his cornerstone: sublime works which fill him with a mixture of fascination, awe and fear.

After making his award-laden recording of them for Hyperion, he initially vowed he would never play them again: “I love them so much, and they make me so nervous, for fear of letting them down.” He would never emulate Yo-Yo Ma by performing them at one sitting—the concentration would be too much, for both me and the audience”. But he recently interspersed them with Kurtág’s miniatures. If Bach’s suites fascinate him, it is partly because they exploit the cello’s capacities more satisfactorily than any other music has. And partly because, with his musicologist’s eye, he reads into them a mystical Christian programme, from the nativity to the crucifixion to the resurrection. ■

Steven Isserlis

String fellow

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SHOULD people know the story behind the creation of a piece of music, or should they let it speak for itself? Steven Isserlis, a British cellist, poses this question in a note to a CD he has just recorded with an American violinist, Joshua Bell. The question is pertinent because the works they play, by Schumann and Brahms, are full of implicit messages from (or about) the composers. Brahms’s first Piano Trio reflected his admiration for Robert Schumann and his adoration of Clara Schumann. The theme of the slow movement in Schumann’s Violin Concerto was a mel-



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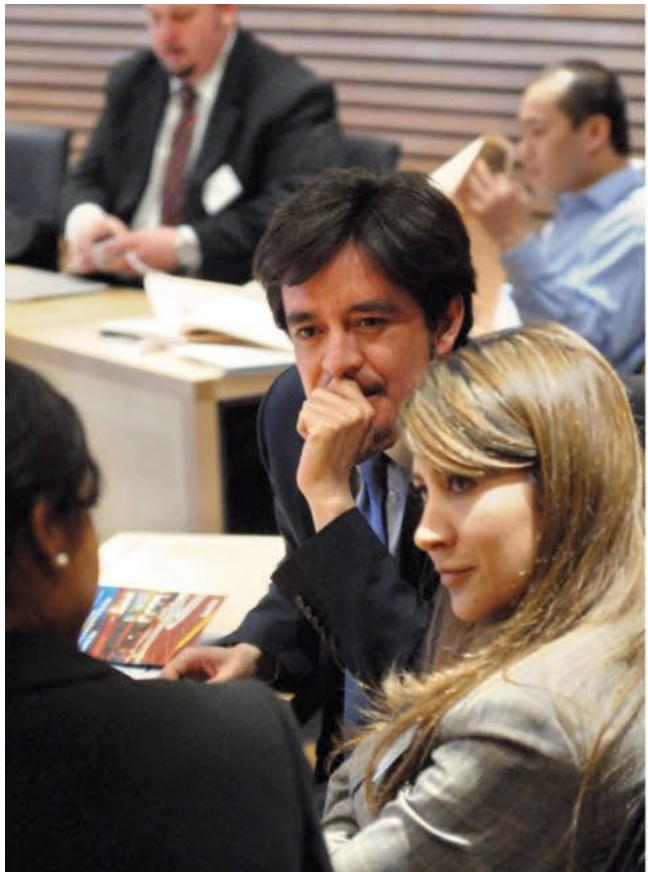
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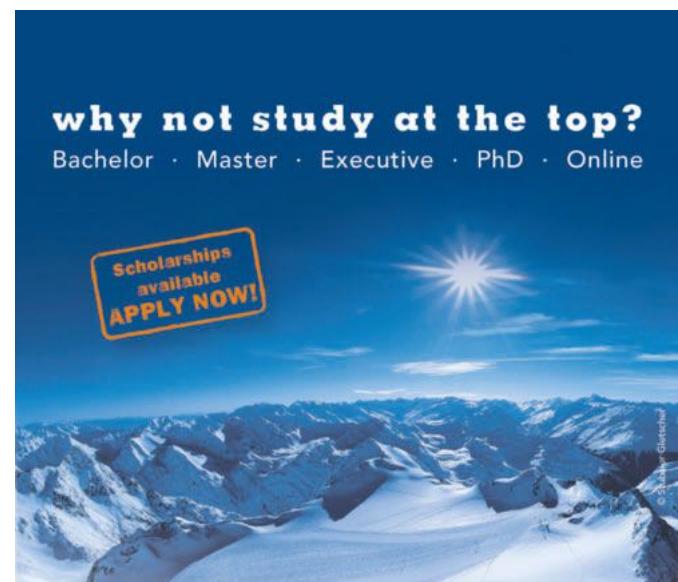
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Economic data

% change on year ago

	Gross domestic product			Industrial production latest	Consumer prices latest 2016 [†]	Unemployment rate, %	Current-account balance		Budget balance % of GDP 2016 [†]	Interest rates, % 10-year gov't bonds, latest	Currency units, per \$ Oct 19th	Currency units, per \$ year ago		
	latest	qtr*	2016 [†]				latest 12 months, \$bn	% of GDP 2016 [†]						
United States	+1.3	Q2	+1.4	+1.5	-1.0 Sep	+1.5 Sep	+1.3	5.0 Sep	-488.2 Q2	-2.6	-3.2	1.75	-	-
China	+6.7	Q3	+7.4	+6.6	+6.1 Sep	+1.9 Sep	+2.0	4.1 Q2 [§]	+260.9 Q2	+2.6	-3.8	2.47 ^{§§}	6.74	6.36
Japan	+0.8	Q2	+0.7	+0.6	+4.5 Aug	-0.5 Aug	-0.2	3.1 Aug	+173.6 Aug	+3.6	-5.1	-0.05	103	119
Britain	+2.1	Q2	+2.7	+1.8	+0.8 Aug	+1.0 Sep	+0.7	4.9 Jul ^{††}	-161.2 Q2	-5.6	-3.9	1.15	0.81	0.65
Canada	+0.9	Q2	-1.6	+1.3	-0.7 Jul	+1.1 Aug	+1.6	7.0 Sep	-51.1 Q2	-3.3	-2.6	1.19	1.30	1.30
Euro area	+1.6	Q2	+1.2	+1.5	+1.8 Aug	+0.4 Sep	+0.2	10.1 Aug	+378.0 Jul	+3.2	-1.9	0.04	0.91	0.88
Austria	+1.2	Q2	-0.9	+1.3	-0.3 Jul	+0.9 Sep	+1.0	6.2 Aug	+8.2 Q2	+2.4	-1.3	0.23	0.91	0.88
Belgium	+1.4	Q2	+2.2	+1.3	+5.3 Jul	+1.9 Sep	+1.8	8.2 Aug	+4.8 Jun	+1.2	-2.8	0.31	0.91	0.88
France	+1.3	Q2	-0.4	+1.3	+0.5 Aug	+0.4 Sep	+0.3	10.5 Aug	-27.3 Aug [‡]	-0.4	-3.3	0.32	0.91	0.88
Germany	+1.7	Q2	+1.7	+1.7	+2.0 Aug	+0.7 Sep	+0.4	6.1 Sep	+305.6 Aug	+8.4	+0.9	0.04	0.91	0.88
Greece	-0.4	Q2	+0.7	-0.6	-0.3 Aug	-1.0 Sep	nil	23.2 Jul	+0.1 Jul	-1.1	-4.5	8.44	0.91	0.88
Italy	+0.7	Q2	+0.1	+0.8	+4.1 Aug	+0.1 Sep	nil	11.4 Aug	+43.9 Jul	+2.5	-2.6	1.45	0.91	0.88
Netherlands	+2.3	Q2	+2.6	+1.6	+2.2 Aug	+0.1 Sep	+0.3	7.0 Sep	+59.7 Q2	+9.2	-1.2	0.15	0.91	0.88
Spain	+3.2	Q2	+3.4	+3.0	+6.8 Aug	+0.2 Sep	-0.4	19.5 Aug	+22.0 Jul	+1.4	-4.3	1.10	0.91	0.88
Czech Republic	+3.6	Q2	+3.7	+2.4	+13.1 Aug	+0.5 Sep	+0.6	5.2 Sep [§]	+3.7 Q2	+1.5	nil	0.39	24.6	23.9
Denmark	+0.8	Q2	+1.5	+1.0	+2.1 Aug	nil Sep	+0.4	4.3 Aug	+25.8 Aug	+6.4	-1.0	0.16	6.79	6.60
Norway	+2.5	Q2	+0.1	+1.0	-5.6 Aug	+3.6 Sep	+3.5	5.0 Jul ^{‡‡}	+23.6 Q2	+5.3	+3.0	1.39	8.14	8.13
Poland	+3.0	Q2	+3.6	+3.1	+3.2 Sep	-0.5 Sep	-0.8	8.4 Sep [§]	-2.7 Aug	-1.0	-2.9	2.98	3.93	3.75
Russia	-0.6	Q2	na	-0.7	-0.8 Sep	+6.4 Sep	+7.3	5.2 Sep [§]	+30.2 Q3	+3.1	-3.7	8.37	62.2	62.3
Sweden	+3.4	Q2	+2.0	+3.1	-4.8 Aug	+0.9 Sep	+1.0	6.6 Aug [§]	+25.4 Q2	+5.1	-0.3	0.28	8.85	8.32
Switzerland	+2.0	Q2	+2.5	+1.4	-1.2 Q2	-0.2 Sep	-0.5	3.3 Sep	+66.1 Q2	+9.3	+0.2	-0.44	0.99	0.96
Turkey	+3.1	Q2	na	+3.2	+2.8 Aug	+7.3 Sep	+7.8	10.7 Jul [§]	-31.0 Aug	-4.7	-2.0	9.91	3.07	2.90
Australia	+3.3	Q2	+2.1	+2.8	+3.7 Q2	+1.0 Q2	+1.2	5.6 Sep	-52.8 Q2	-4.2	-2.1	2.26	1.30	1.38
Hong Kong	+1.7	Q2	+6.5	+1.6	-0.6 Q2	+4.3 Aug	+2.7	3.4 Sep ^{‡‡}	+13.6 Q2	+3.0	+0.1	1.05	7.76	7.75
India	+7.1	Q2	+5.5	+7.6	-0.7 Aug	+4.3 Sep	+5.2	5.0 2015	-16.2 Q2	-1.0	-3.8	6.82	66.7	64.8
Indonesia	+5.2	Q2	na	+5.0	+4.8 Aug	+3.1 Sep	+3.6	5.5 Q3 [§]	-18.7 Q2	-2.2	-2.6	7.08	13,008	13,532
Malaysia	+4.0	Q2	na	+4.3	+4.9 Aug	+1.5 Aug	+1.9	3.5 Jul [§]	+5.3 Q2	+1.0	-3.4	3.63	4.19	4.21
Pakistan	+5.7	2016 ^{**}	na	+5.7	+2.9 Jul	+3.9 Sep	+3.9	5.9 2015	-3.3 Q2	-0.8	-4.6	8.03 ^{†††}	105	104
Philippines	+7.0	Q2	+7.4	+6.4	+13.6 Aug	+2.3 Sep	+1.7	5.4 Q3 [§]	+3.2 Jun	+1.1	-1.0	3.94	48.2	46.1
Singapore	+2.0	Q2	-4.1	+1.0	+0.1 Aug	-0.3 Aug	-0.7	2.1 Q2	+58.4 Q2	+19.4	+0.7	1.87	1.39	1.39
South Korea	+3.2	Q2	+3.2	+2.6	+2.3 Aug	+1.2 Sep	+0.9	3.6 Sep [§]	+101.3 Aug	+7.2	-1.3	1.61	1,123	1,121
Taiwan	+0.7	Q2	+0.2	+0.6	+7.7 Aug	+0.3 Sep	+1.3	4.0 Aug	+75.7 Q2	+13.5	-0.6	0.89	31.5	32.3
Thailand	+3.5	Q2	+3.2	+3.1	+3.1 Aug	+0.4 Sep	+0.2	0.9 Aug [§]	+42.4 Q2	+5.3	-2.5	2.12	34.9	35.3
Argentina	-3.4	Q2	-8.0	-1.5	-2.5 Oct	— ***	—	9.3 Q2 [§]	-15.4 Q2	-2.4	-5.0	na	15.2	9.49
Brazil	-3.8	Q2	-2.3	-3.2	-5.2 Aug	+8.5 Sep	+8.3	11.8 Aug [§]	-25.8 Aug	-1.1	-6.4	11.07	3.17	3.90
Chile	+1.5	Q2	-1.4	+1.7	+2.8 Aug	+3.1 Sep	+3.9	6.9 Aug ^{‡‡}	-5.1 Q2	-1.9	-2.5	4.22	667	679
Colombia	+2.0	Q2	+0.8	+2.0	+9.4 Aug	+7.3 Sep	+7.7	9.0 Aug [§]	-15.7 Q2	-5.4	-3.7	7.19	2,909	2,907
Mexico	+2.5	Q2	-0.7	+2.1	+0.3 Aug	+3.0 Sep	+2.9	3.7 Aug	-30.9 Q2	-2.9	-3.0	6.05	18.6	16.5
Venezuela	-8.8	Q2~	-6.2	-14.2	na	na	+485	7.3 Apr [§]	-17.8 Q3~	-3.0	-24.3	10.57	9.99	6.31
Egypt	+6.7	Q1	na	+4.4	-13.1 Aug	+14.1 Sep	+12.8	12.5 Q2 [§]	-18.7 Q2	-6.8	-11.5	na	8.88	8.03
Israel	+2.8	Q2	+4.3	+3.0	+1.7 Jul	-0.4 Sep	-0.4	4.6 Aug	+12.1 Q2	+3.3	-2.4	1.81	3.83	3.86
Saudi Arabia	+3.5	2015	na	+1.1	na	+3.3 Aug	+4.2	5.6 2015	-61.5 Q2	-6.5	-12.0	na	3.75	3.75
South Africa	+0.6	Q2	+3.3	+0.4	+0.1 Aug	+6.1 Sep	+6.4	26.6 Q2 [§]	-12.9 Q2	-4.1	-3.4	8.78	13.9	13.3

Source: Haver Analytics. *% change on previous quarter, annual rate. [†]The Economist poll or Economist Intelligence Unit estimate/forecast. [§]Not seasonally adjusted. [‡]New series. ^{§§}2014. ^{**}Year ending June. ^{††}Latest 3 months. ^{†††}3-month moving average. ^{§§§}5-year yield. ^{***}Official number not yet proved to be reliable; The State Street PriceStats Inflation Index, Sept 35.92%; year ago 26.47%. ^{††††}Dollar-denominated bonds.

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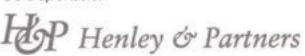


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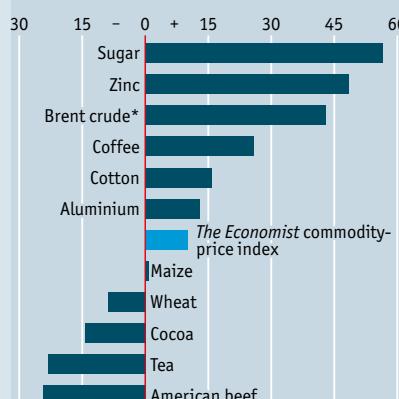
	% change on			
	Index Oct 19th	one week	Dec 31st 2015 in local currency terms	in \$
United States (DJIA)	18,202.6	+0.3	+4.5	+4.5
China (SSEA)	3,229.7	+0.9	-12.8	-16.0
Japan (Nikkei 225)	16,998.9	+0.9	-10.7	+4.0
Britain (FTSE 100)	7,021.9	nil	+12.5	-6.2
Canada (S&P TSX)	14,840.5	+1.5	+14.1	+21.8
Euro area (FTSE Euro 100)	1,042.4	+1.6	-4.7	-3.8
Euro area (EURO STOXX 50)	3,055.9	+1.6	-6.5	-5.6
Austria (ATX)	2,446.5	+1.5	+2.1	+3.1
Belgium (Bel 20)	3,599.4	+2.1	-2.7	-1.8
France (CAC 40)	4,520.3	+1.5	-2.5	-1.6
Germany (DAX)*	10,645.7	+1.2	-0.9	nil
Greece (Athex Comp)	593.0	+1.2	-6.1	-5.2
Italy (FTSE/MIB)	17,044.3	+3.5	-20.4	-19.7
Netherlands (AEX)	454.7	+0.9	+2.9	+3.9
Spain (Madrid SE)	902.6	+3.0	-6.5	-5.6
Czech Republic (PX)	922.5	+3.6	-3.5	-2.6
Denmark (OMXCB)	826.1	+3.0	-8.9	-7.8
Hungary (BUX)	29,168.0	+2.7	+21.9	+26.7
Norway (OSEAX)	701.9	+0.6	+8.2	+17.6
Poland (WIG)	47,876.1	-0.1	+3.0	+3.4
Russia (RTS, \$ terms)	995.2	-0.1	+12.0	+31.5
Sweden (OMX30)	1,455.3	+0.9	+0.6	-4.1
Switzerland (SMI)	8,093.8	+0.3	-8.2	-7.1
Turkey (BIST)	79,209.8	+2.3	+10.4	+5.0
Australia (All Ord.)	5,518.4	-0.7	+3.3	+9.5
Hong Kong (Hang Seng)	23,305.0	-0.4	+6.3	+6.2
India (BSE)	27,984.4	-0.3	+7.1	+6.3
Indonesia (JSX)	5,409.3	+0.8	+17.8	+24.8
Malaysia (KLCSE)	1,668.3	+0.1	-1.4	+0.9
Pakistan (KSE)	40,924.1	-1.2	+24.7	+24.7
Singapore (STI)	2,844.6	+1.1	-1.3	+0.9
South Korea (KOSPI)	2,040.9	+0.4	+4.1	+8.6
Taiwan (TWI)	9,284.0	+0.3	+11.3	+16.1
Thailand (SET)	1,486.3	+5.7	+15.4	+19.0
Argentina (MERV)	18,125.4	+5.3	+55.2	+32.2
Brazil (BVSP)	63,505.6	+4.1	+46.5	+82.9
Chile (IGPA)	21,241.0	+3.1	+17.0	+24.3
Colombia (IGBC)	10,101.1	+0.9	+18.2	+29.0
Mexico (IPC)	48,492.6	+1.2	+12.8	+4.9
Venezuela (IBC)	13,627.1	+1.0	-6.6	na
Egypt (Case 30)	8,160.4	-0.3	+16.5	+2.7
Israel (TA-100)	1,250.6	-1.2	-4.9	-3.3
Saudi Arabia (Tadawul)	5,522.6	-3.0	-20.1	-20.0
South Africa (JSE AS)	51,504.9	-0.1	+1.6	+13.5

Commodities

The Economist's commodity-price index has climbed 10% this year, although it is still 40% below its peak in 2011. Over-supply and falling Chinese demand pushed down the value of raw materials in 2015, but government stimulus in China has boosted building activity and metal prices this year. Oil has also reached \$50 a barrel again, partly because of expectations that OPEC, an oil cartel, may agree to curb production. Sugar is the best-performing commodity in our index: unfavourable weather in Brazil has pushed up the price by 56%. Grain prices have fallen after bumper harvests in the United States, while oversupply of cattle has pulled the price of beef down by 24%.

Selected prices, % change

January 5th-October 18th 2016, \$ terms



Sources: Thomson Reuters; The Economist

*Not in The Economist commodity-price index

Other markets

	% change on			
	Index Oct 19th	one week	Dec 31st 2015 in local currency terms	in \$
United States (S&P 500)	2,144.3	+0.2	+4.9	+4.9
United States (NAScomp)	5,246.4	+0.1	+4.8	+4.8
China (SSEB, \$ terms)	342.5	-4.1	-16.6	-19.7
Japan (Topix)	1,357.2	+1.1	-12.3	+2.1
Europe (FTSEurofirst 300)	1,355.3	+1.4	-5.7	-4.8
World, dev'd (MSCI)	1,706.7	+0.7	+2.6	+2.6
Emerging markets (MSCI)	913.3	+1.2	+15.0	+15.0
World, all (MSCI)	414.9	+0.7	+3.9	+3.9
World bonds (Citigroup)	943.1	+0.3	+8.4	+8.4
EMBI+ (JP Morgan)	805.0	-0.3	+14.3	+14.3
Hedge funds (HFRX)	1,185.9 [§]	-0.1	+1.0	+1.0
Volatility, US (VIX)	14.4	+15.9	+18.2 (levels)	
CDSs, Eur (iTRAXX) [†]	70.9	-4.8	-8.0	-7.1
CDSs, N Am (CDX) [†]	73.7	-2.8	-16.6	-16.6
Carbon trading (EU ETS) €	5.7	+0.2	-31.6	-30.9

Sources: Markit; Thomson Reuters.

*Total return index.

†Credit-default-swap spreads, basis points. [§]Oct 18th.Indicators for more countries and additional series, go to: Economist.com/indicators

The Economist commodity-price index

	2005=100			
	Oct 11th	Oct 18th*	% change on one month	% change on one year
Dollar Index				
All Items	136.2	137.3	-0.1	+4.2
Food	153.4	156.1	-1.5	+2.3
Industrials				
All	118.3	117.9	+1.8	+7.0
Nfa [†]	126.5	128.9	+1.7	+15.7
Metals	114.8	113.2	+1.9	+3.2
Sterling Index				
All items	202.6	203.0	+5.1	+31.0
Euro Index				
All items	153.2	155.6	+1.6	+7.8
Gold				
\$ per oz	1,256.7	1,261.7	-4.1	+7.1
West Texas Intermediate				
\$ per barrel	50.8	50.3	+15.8	+9.8

Sources: Bloomberg; CME Group; Cottlook; Darmenn & Curl; FT; ICCO; ICO; ISO; Live Rice Index; LME; NZ Wool Services; Thompson Lloyd & Ewart; Thomson Reuters; Urner Barry; WSJ.

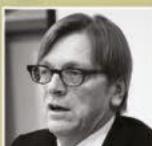
*Provisional

†Non-food agriculturals.

Confirmed speakers include:



Nicos Anastasiades
President
Republic of Cyprus



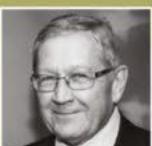
Guy Verhofstadt
Chair
Group of the Alliance of Liberals and Democrats for Europe in the European Parliament, former prime minister of Belgium



James Rubin
Fmr US assistant secretary of state for public affairs, adviser on politics and international affairs



Espen Barth Eide
Special adviser to the secretary-general on Cyprus United Nations



Klaus Regling
Managing director
European Stability Mechanism

Airline carrier:



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Italy's jester

Dario Fo, playwright, actor, artist and all-round provocateur, died on October 13th, aged 90

THE stone lions that guard the Romanesque cathedral at Modena, in northern Italy, were doubly dear to Dario Fo. As a lover of medieval architecture, he studied and revered the old beasts as art. But after roughly 2,000 years of roaring their noses were worn away, their teeth gappy and their expressions dimly surprised. These symbols of the combined might of church and state had been taken over by the people—usually small people, who rode on them laughing and kicked their curled manes with vicious little feet.

All Mr Fo's life in theatre and politics (the one infusing the other all the time) was dedicated to the idea of *il popolo contro i potenti*, the people against the powerful. He put himself squarely in the tradition of the *giullari*, the mocking, singing jesters of medieval Italy, who kept on the move because they were liable to be hanged if they stayed still. The work that made his name and notoriety, "Mistero Buffo" ("Comedy-Mystery"), was a one-man show in which, his long limbs feline in a black jumper and grey trousers, he told, mimed, sang and shouted New Testament stories like an idiot. His Jesus got drunk at the marriage at Cana, climbed on a table and exhorted everyone to forget the afterlife for the here and now; his raising of Lazarus was recounted by a furious pickpocket victim in

the crowd. The line to the medieval mystery plays was direct. When Mr Fo won the Nobel prize in 1997 he received it on behalf of all mummers, tumblers and clowns.

Ordinary people were the heroes of all his plays, or rather farces, and authorities of every sort his villains. This touched a raw nerve in the chaotic, kidnap-and-inflation-ridden Italy of the mid-20th century, but also far outside it. His most famous play, "The Accidental Death of an Anarchist" (1970), concerned the true, mysterious defenestration of an activist while in the hands of the police. His second-most-famous, "Can't Pay? Won't Pay!" (1974), starred two housewives driven to shoplifting by extortionate food prices. Both manic comedies were built up from outrage that made the laughter stick in your throat. Which was more dangerous, an innocent anarchist or a corrupt judicial system? Which was the greater crime, stuffing a jar of olives under your coat, or charging more than workers could possibly afford?

He wrote as people spoke, with plenty of swearing, obscenity, Lombardy dialect, tall tales from smugglers and fishermen and the invented language, "grammelot", he picked up from foreign workers in a

.....
Our obituary of King Bhumibol of Thailand appeared online last week.

glass factory near Lake Maggiore, where he grew up as a stationmaster's son. His favourite local story mocked docile villagers on the Rock of Caldé who, even as the village and its church bells were sinking underwater ("Dong...ding...dop...plock..."), insisted they weren't drowning.

Riots and risotto

Having written "lines to chew on" (in a few days, usually), and made the sets, costumes and masks, all in devoted partnership with his actress wife, Franca Rame, he would take his shows direct to the people. Early on he played regular theatres, but these were too cosily bourgeois. He sought "solidarity with the humble" in union halls, prisons, factories or park pavilions, places with bad acoustics but great for debate. La Comune, his theatre group, threw out the "fourth wall", letting the audience mill onstage with their own *interventi* about rotten mayors, magistrates, bosses and the criminal state. They had plenty.

The authorities raved at him. His plays were cut, thrown out, closed down; he was briefly arrested and frequently put on trial, though always rising up victorious. The Vatican declared "Mistero Buffo" to be the greatest blasphemy in the history of television. He was banned for 14 years from RAI, the state broadcaster, for proposing in 1962 a play in which factory bosses refused to shut down production after a visitor had fallen into the meat-grinder, preferring to turn out instead another 150 tins of mince.

Like any jester, though, he couldn't be kept down—not with Silvio Berlusconi's *bunga bunga* around, or global financial collapse. (He dreamed that, after a double assassination attempt on Mr Berlusconi and Vladimir Putin, Italy's then-prime minister was saved with a transplant of part of Mr Putin's brain.) He was not a formal communist and, when he ran for mayor of Milan in 2005, seemed unsure which party he was in. But apparent chaos almost always masked careful preparation. "Accidental Death" took months of rigorous legal research. On a typically mad day in his flat, with the phone ringing off the hook and people rushing in and out, farce-like, he (and she) could still perfect the moves for his latest piece over Franca's sublime *risotto milanese*.

As if all that were not enough, he directed operas too; and painted. He had loved painting all his life, and thought it the highest form of art he attempted. It wasn't pure, of course. Politics polluted that, too. And indeed it had to, if art was to have any use in its own time. His beloved cathedral of Modena had been built by simple, exploited workers like those who came to his shows. But if he himself had carved those guardian lions, they would have held in their teeth the greasy remains of a howling politician or a squealing, mangled judge. ■

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Deputy prime minister
and minister of foreign
affairs
Vietnam



CHU NGỌC ANH
Minister of science and
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Chief executive officer
VNG Corporation

Smooth sailing ahead

Growth in emerging markets may be slowing, but Vietnam's economy is speeding up. The Economist Intelligence Unit expects Vietnam's real GDP to grow by 6.8% in 2016, and growth should be even higher in 2017. The government hopes to achieve this by positioning Vietnam as a tech hub. What needs to happen to make this ambition a reality? What business opportunities are you exploring in Vietnam?

Hear from VNG Corporation, Vietnam Silicon Valley, 500 Startups and other Vietnamese business leaders who aim to disrupt established businesses at the **Vietnam Summit 2016**.

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