

## Business

America's **health-care industry** got a shock as **Amazon**, **Berkshire Hathaway** and **JPMorgan Chase** announced that they would form a non-profit company to cover the health needs of their combined million-strong employees. There were few details, other than a focus on technological innovation, but Amazon's entry into the health market has long been expected, and feared, by conventional providers. Warren Buffett, Berkshire's boss, described the ballooning costs of health care as a "hungry tapeworm" devouring the economy.

**Janet Yellen** presided over her last meeting as chairman of the rate-setting committee at the Federal Reserve, and kept it on course for another interest-rate rise in March. The central bank is going through a period of upheaval. Jerome Powell, who takes over as chairman, will soon have a new vice-chairman. A search is also under way for a replacement for the retiring head of the New York Fed.

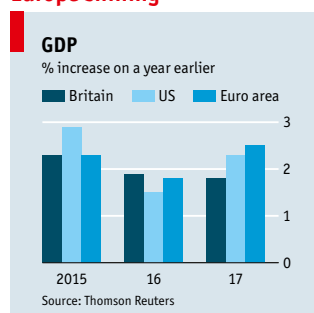
### A data-driven story

**Blackstone**, one of the world's biggest private-equity firms, struck a \$17bn deal to take a controlling stake in the financial-data business of **Thomson Reuters**. Thomson Reuters provides data analysis to traders around the world, competing with Bloomberg's terminals. The business will be split off into a privately held firm with Blackstone as the majority owner. That leaves Thomson Reuters with its news service.

**JAB Holding**, an investment group based in Luxembourg, expanded its portfolio in America by agreeing to buy **Dr Pepper Snapple** for \$18.7bn, the biggest acquisition of a soft-drinks company to date. Dr Pepper Snapple owns several brands, including 7UP and Schweppes, which traces its roots to 1783, when it created the world's first carbonated mineral water in Geneva.

**Fujifilm** unveiled a deal through which it will take a 50.1% stake in **Xerox**, ending the independence of an American corporate giant of the 20th century. The pair already operate a long-standing joint venture selling photocopiers in Asia; their agreement in effect broadens that venture to encompass all Xerox business.

### Europe shining



America, Britain and the euro zone released preliminary estimates of their **economic growth** rates for 2017. The euro zone's GDP rose by 2.5% over the year, its best performance since 2007. America's rate also improved, to 2.3%. Britain's economy expanded by 1.8%, the slowest pace since 2012.

The number of **cars** made in Britain fell by 3% last year according to the Society of Motor Manufacturers and Traders. Output for the domes-

tic market slumped by nearly 10%, though exports dipped only slightly. British carmaking is heavily dependent on exports, with four out of every five cars heading abroad. As EU countries drive half of that demand, Brexit will only make things more difficult for the industry in the coming years.

In a surprise turn of events, America's International Trade Commission overturned the Trump administration's recommendation that **Bombardier's** C-series aircraft should be subjected to punitive tariffs, finding that the Canadian planemaker's small passenger jets "do not injure" American industry. **Boeing** maintains that the C-series has benefited from state aid; it is "disappointed" with the ruling.

**Facebook** said that the amount of time users spend on its network had dropped by 50m hours a day in the fourth quarter of 2017. That was before it announced changes to its news feed, which it acknowledges will lead to less engagement with its site. In its latest earnings release, Facebook stressed it was now focused on what's "good for people's well-being and for society" by "encouraging meaningful connections".

**Capita**, an outsourcing company that runs some big public services in Britain, such as London's congestion charge, warned that its profit will fall far below expectations. With the bankruptcy of Carillion, another government contractor, still rippling through Whitehall, investors took fright, sending Capita's share price down by 48%.

A few days before formally stepping down as chief executive of Hewlett Packard Enterprise, **Meg Whitman** accepted a new job as CEO of **Newtv**, a startup that will make short Hollywood-style videos purely for mobile devices. Ms Whitman describes it as "one of the most disruptive" ideas she has ever come across.

### He chucked out your chintz


**Ingvar Kamprad**, who founded **IKEA**, died at the age of 91. He was by some measures one of the world's richest men. Mr Kamprad's flat-pack revolution spread from Sweden to 37 countries, bringing cheap-but-stylish furniture to the masses. Despite his wealth, he once said that "IKEA people do not drive flashy cars or stay at luxury hotels".

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



# Doctor You

A digital revolution in health care is coming. Welcome it



NO WONDER they are called “patients”. When people enter the health-care systems of rich countries today, they know what they will get: prodding doctors, endless tests, baffling jargon, rising costs and, above all, long waits. Some stoicism will always be needed, because health care is complex and diligence matters. But frustration is boiling over. This week three of the biggest names in American business—Amazon, Berkshire Hathaway and JPMorgan Chase—announced a new venture to provide better, cheaper health care for their employees. A fundamental problem with today’s system is that patients lack knowledge and control. Access to data can bestow both.

The internet already enables patients to seek online consultations when and where it suits them. You can take over-the-counter tests to analyse your blood, sequence your genome and check on the bacteria in your gut. Yet radical change demands a shift in emphasis, from providers to patients and from doctors to data. That shift is happening. Technologies such as the smartphone allow people to monitor their own health. The possibilities multiply when you add the crucial missing ingredients—access to your own medical records and the ability easily to share information with those you trust. That allows you to reduce inefficiencies in your own treatment and also to provide data to help train medical algorithms. You can enhance your own care and everyone else’s, too.

## The doctor will be you now

Medical data may not seem like the type of kindling to spark a revolution. But the flow of information is likely to bear fruit in several ways. One is better diagnosis. Someone worried about their heart can now buy a watch strap containing a medical-grade monitor that will detect arrhythmias. Apps are vying to see if they can diagnose everything from skin cancer and concussion to Parkinson’s disease. Research is under way to see whether sweat can be analysed for molecular biomarkers without the need for an invasive blood test. Some think that changes in how quickly a person swipes a phone’s touchscreen might signal the onset of cognitive problems.

A second benefit lies in the management of complex diseases. Diabetes apps can change the way patients cope, by monitoring blood-glucose levels and food intake, potentially reducing long-run harm such as blindness and gangrene. Akili Interactive, a startup, plans to seek regulatory approval for a video game designed to stimulate an area of the brain implicated in attention-deficit hyperactivity disorder (see page 55).

Patients can also improve the efficiency of their care. Although health records are increasingly electronic, they are often still trapped in silos. Many contain data that machines cannot read. This can lead to delays in treatment, or worse. Many of the 250,000 deaths in America attributable to medical error each year can be traced to poorly co-ordinated care. With data at their fingertips, common standards to enable sharing and a strong incentive to get things right, patients are more likely to

spot errors. On January 24th Apple laid out its plans to ask organisations to let patients use their smartphones to download their own medical records (see page 53).

A final benefit of putting patients in charge stems from the generation and aggregation of their data. Artificial intelligence (AI) is already being trained by a unit of Alphabet, Google’s parent company, to identify cancerous tissues and retinal damage. As patients’ data stream from smartphones and “wearables”, they will teach AIs to do ever more. Future AIs could, for instance, provide automated medical diagnosis from a description of your symptoms, spot behavioural traits that suggest you are depressed or identify if you are at special risk of cardiac disease. The aggregation of data will also make it easier for you to find other people with similar diseases and to see how they responded to various treatments.

## An Apple a day

As with all new technologies, pitfalls accompany the promise. Hucksters will launch apps that do not work. But with regulators demanding oversight of apps that present risks to patients, users will harm only their wallets. Not everyone will want to take active control of their own health care; plenty will want the professionals to manage everything. Fine. Data can be pored over by those who are interested, while those who are not can opt to share data automatically with trusted providers.

The benefits of new technologies often flow disproportionately to the rich. Those fears are mitigated by the incentives that employers, governments and insurers have to invest in cost-efficient preventive care for all. Alphabet has recently launched a firm called Cityblock Health, for example, which plans to trawl through patients’ data to provide better care for low-income city dwellers, many of them covered by Medicaid, an insurance programme for poorer Americans.

Other risks are harder to deal with. Greater transparency may encourage the hale and hearty not to take out health insurance. They may even make it harder for the unwell to find cover. Regulations can slow that process—by requiring insurers to ignore genetic data, for example—but not stop it. Security is another worry. The more patient data are analysed in the cloud or shared with different firms, the greater the potential threat of hacking or misuse. Almost a quarter of all data breaches in America happen in health care. Health firms should face stringent penalties if they are slapdash about security, but it is naive to expect that breaches will never happen.

Will the benefits of making data more widely available outweigh such risks? The signs are that they will. Plenty of countries are now opening up their medical records, but few have gone as far as Sweden. It aims to give all its citizens electronic access to their medical records by 2020; over a third of Swedes have already set up accounts. Studies show that patients with such access have a better understanding of their illnesses, and that their treatment is more successful. Trials in America and Canada have produced not just happier patients but lower costs, as clinicians fielded fewer inquiries. That should be no surprise. No one has a greater interest in your health than you do. Trust in Doctor You. ■