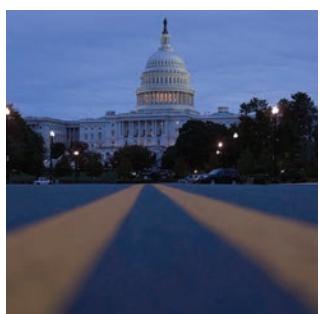


Bloomberg
BRIEF

QuickTake

NEWS IN CONTEXT



January 2017

Bloomberg QuickTakes are concise guides to topics in the news. They highlight the underpinnings of complicated subjects, providing a fun-to-read entry point to current debates. Use them to get smart fast on buzzwords, market trends and trouble spots and to untangle public policy knots.

Sign up for this free monthly collection of new and updated QuickTakes at **BRIEF <GO>** on the terminal or bloombergbriefs.com/quicktakes online.

THE QUICKTAKE GUIDE TO 2017

For events making news in 2017, QuickTakes can be your guide. Here's a handful of things to watch for. Related QuickTakes can be accessed via QUIC <GO> on the Bloomberg Professional service or by searching for the name and "QuickTake" in your web browser.

JANUARY

Donald Trump will be sworn in Jan. 20. He will have to decide whether to keep U.S. troops in Afghanistan.

QuickTake: Afghanistan's War

Finland begins a test of a universal basic income by offering 2,000 unemployed adults 560 euros a month.

QuickTake: Universal Basic Income

Switzerland and 46 other countries join the OECD's automatic bank data exchange, an effort to fight global tax evasion.

QuickTake: Swiss Bank Secrets

FEBRUARY

Judges may rule as early as February in a U.S. patent dispute determining who invented the gene-editing technique known as Crispr-Cas9.

QuickTake: Crispr

U.S. Federal Reserve Chair Janet Yellen gives the first of her twice-yearly reports to Congress.

QuickTake: The Fed Lifts Off, Barely

The number of influenza cases typically peaks this month in the U.S.

QuickTake: The Flu

MARCH

U.K. Prime Minister Theresa May plans to trigger the legal process for Britain's exit from the European Union.

QuickTake: Brexit

Hong Kong's Election Committee chooses the next chief executive.

QuickTake: Hong Kong's Autonomy

SpaceX plans to launch the most powerful rocket since the Saturn V moon rocket program ended in 1973.

QuickTake: Elon Musk

APRIL

Golf's Masters Tournament takes place April 6-9 in Augusta, Georgia.

QuickTake: Golf in the Rough

The European Central Bank is scheduled to begin scaling back its quantitative easing program, reducing monthly bond buying to 60 billion euros.

QuickTake: Europe's QE Quandary

The French presidential election's first round is April 23, with the second and final round two weeks later.

MAY

Pope Francis visits Fatima, Portugal, May 13 for the 100th anniversary of the day on which three children said the Virgin Mary first appeared to them.

QuickTake: Pope Francis

Iran's presidential election is May 19.

QuickTake: Iran's Oil

College graduates say farewell to school and, in the U.S., hello to an average \$30,100 in debt.

QuickTake: Student Debt

JUNE

The 50th anniversary of the Six-Day War.

QuickTake: Two-State Solution

The Confederations Cup, a practice run for hosting the 2018 FIFA World Cup, is held June 17 to July 2 in Russia.

QuickTake: The World Cup

Spotify plans to go public mid-year.

QuickTake: The Streaming Revolution

JULY

Canada Day, July 1, marks 150 years since the British colonies were federally united into the Dominion of Canada.

QuickTake: Canada

The Group of 20 nations meets in Hamburg, July 7-8.

QuickTake: Neutral Interest Rates

U.S. banks face a July 21 deadline for divesting their investments in private equity and hedge funds.

QuickTake: The Volcker Rule

AUGUST

Kenya holds elections Aug. 8.

The Perseid meteor shower will peak Aug. 12 or 13.

Earliest date possible for the German federal election is Aug. 27. In recent years, elections have taken place in September.

QuickTake: Angela Merkel

SEPTEMBER

U.S. meat producer Tyson Foods pledged to end the use of antibiotics in its chickens this month.

QuickTake: Antibiotic Resistance

Russia will hold its annual strategic military exercises in its western regions.

QuickTake: Cool War

Catalonia's regional president, Carles Puigdemont, has vowed to hold a referendum this month on splitting from Spain.

QuickTake: Catalonia

OCTOBER

Nobel Peace Prize is announced.

Colombia's president won in 2016.

QuickTake: Colombia's Peace Plan

Annual meeting of the World Bank and International Monetary Fund in Washington, Oct. 13-15.

QuickTake: GDP

Chinese President Xi Jinping may narrow the field of potential successors at the party congress, expected in October or November.

QuickTake: China's Pain Points

NOVEMBER

If the U.S. Affordable Care Act is still in place, its open enrollment period will run from Nov. 1 to Jan. 31, 2018.

QuickTake: Health Insurance Exchanges

China celebrates Singles Day Nov. 11. It's the largest online shopping day.

QuickTake: Alibaba

New Zealand's general election must be held by Nov. 18.

DECEMBER

Thailand's junta promises that a new, elected government will be able to assume power this month.

QuickTake: Thailand's Troubled Democracy

A loophole that's allowed U.S. hedge fund managers to avoid taxes on performance fees parked offshore expires Dec. 31.

New Year's Eve brings the usual resolutions to lose weight.

QuickTake: Obesity

ANGELA MERKEL

BY PATRICK DONAHUE

Angela Merkel, a physicist by training, isn't flashy and doesn't use Twitter. But since she became Germany's chancellor in 2005, every event that has shaken the European Union has made her ever more its indispensable leader. The continent ended up marching to Merkel's cautious mantra of solving problems "step by step," whether in the austerity imposed after the continent's debt crisis or the sanctions that followed Russia's invasion of Crimea. She's now the only major world leader who's been in power since before 2008. But her prescription for "more Europe" is facing challenges on many fronts, including Britain's vote to leave the EU and the rise of populist parties in France, Italy and elsewhere. Even at home her popularity has fallen, undermined by her uncharacteristically bold welcome of Syrian refugees. Now the U.S. has elected Donald Trump as its next president — an admirer of Russian President Vladimir Putin who has suggested that NATO is obsolete.



Photo: Getty Images

THE SITUATION

Merkel announced in November that she will seek a fourth term by running in this year's federal election. She quickly moved to shore up support from conservative members of her Christian Democratic Union by calling for a ban on full-face veils and pledging to protect Germany against future refugee waves. The anti-immigration Alternative for Germany party has capitalized on discontent over the almost 1 million asylum seekers admitted in 2015. A string of violent incidents, some involving refugees, was followed by a truck attack that killed 12 shoppers at a Berlin Christmas market and was linked to a Tunisian asylum seeker awaiting deportation, seeming to increase pressure on Merkel to shift to her right. In her favor are the country's strong economy — unemployment is under 4.5 percent — and a budget surplus.

THE BACKGROUND

Merkel was born in 1954 in Hamburg, but her family moved to communist East Germany when she was an infant. She says she rebuffed recruiters from the Stasi, the secret police, but she wasn't a dissident. On the night the Berlin Wall fell in 1989, Merkel had continued with her routine of a weekly sauna, only later joining a crowd pushing its way over a bridge to West Berlin. Merkel had been working as a laboratory physicist but was swept up in the euphoria of democracy and at age 35 ended up aligned with West German Chancellor Helmut Kohl's Christian Democratic Union, puzzling friends who considered her apolitical. She advanced when Kohl saw a need for an East German

woman in his first post-unity Cabinet. In 1999, after breaking with her mentor when he was rocked by a finance scandal, she was elected party chairwoman. Her chance came when Chancellor Gerhard Schroeder called early elections in response to unpopular economic and labor reforms. Merkel squeaked through to become Germany's leader in November 2005. She has been reelected twice: Her 2013 victory was the biggest for any party since Germany's reunification in 1990.

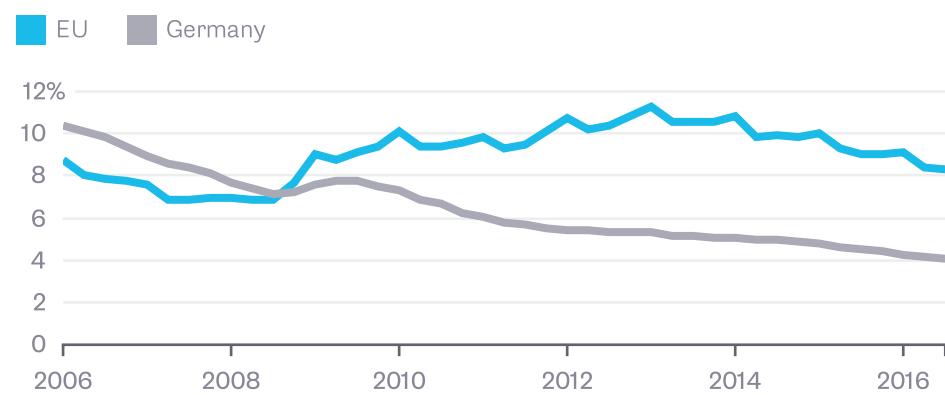
THE ARGUMENT

There's been a common thread in actions by Merkel as disparate as browbeating Greece into accepting tough conditions for aid or opening her country to asylum seekers in need: That Germany set an example of holding behavior to high

standards. Critics, however, say that her actions on the economy and immigration have helped fuel the rise of those who want to pull back from integration, by prolonging Europe's economic malaise and feeding fears of terrorism. On the refugee issue, Merkel, long regarded by her supporters as well as critics as ruled by her head rather than her heart, spoke out in unusually forceful terms in 2015. "I've rarely held such an innermost conviction that this is a task that will decide whether Europe is accepted as a continent of values," she said. But her declaration as she began her campaign that "full-face covering is not appropriate with us," raised questions about whether she's bowing to anti-immigrant sentiment or trying to find a cautious balance to allow Germany to continue to be a tolerant, diverse country open to the world.

Germany Bucks Europe's Jobless Blues

Quarterly unemployment rate



TAIWAN'S TIGHTROPE

BY DEBRA MAO

Taiwan is a country, right? Well, sort of. It has a constitution, an army and an elected government, and yet the United Nations doesn't recognize it. The reason? Taiwan became the home base of Chinese who fled Communism in the 1940s, and China considers the island one of its provinces, the government as illegitimate and any talk of independence as deeply hostile. China blasted missiles into the waters surrounding Taiwan in the mid-1990s as a warning not to go it alone. Relations and trade links have strengthened since then, but Taiwan's first female president, leader of the independence-leaning Democratic Progressive Party, is testing China's tolerance.

THE SITUATION

President Tsai Ing-wen provoked an angry response from China by speaking to U.S. President-elect Donald Trump by telephone in December. In deference to the Beijing government, no U.S. leader has talked directly with a Taiwanese president in almost four decades. Tsai, who was elected in a landslide in January 2016, said at her inauguration that she would seek peaceful ties with China while resisting pressure from the mainland to acknowledge the "One-China principle" — the understanding that both sides belong to one China, even if they have different ideas about what that means. (The Beijing government considers itself the rightful ruler over territory that includes Taiwan; under Taiwan's constitution, adopted in 1946, Taiwan is the legitimate ruler of all of China including Taiwan.) Trump said that his support for the One-China policy would hinge on cutting a better deal on trade with China. China lodged a complaint with the U.S. over the phone call and urged authorities there to "prudently" handle issues related to Taiwan. Tsai has promised to follow public opinion on China: Polls show strong support for maintaining the status quo of coexistence and little immediate interest in independence. Since Tsai took office, China has increased contact with some of Taiwan's few remaining diplomatic allies. In December, Sao Tome and Principe cut formal ties with Taiwan, which accused the African nation of making "astronomical" demands for financial aid in an attempt to force it into a bidding war with the mainland.

THE BACKGROUND

Victory by the Communists in the Chinese civil war in 1949 forced the nationalist Kuomintang government to flee the mainland and cross the 110-mile

Taiwan Strait along with more than 1.5 million refugees. Staunch U.S. support mellowed in the 1970s when President Richard Nixon shifted America's diplomatic recognition to China from Taiwan in an effort to contain the Soviet Union. Even so, America passed a 1979 law committing to keep the peace in the Taiwan Strait and facilitate arms sales to the island democracy. After 38 years of often brutal rule, Taiwan dropped martial law in 1987 and a year later got its first native-born president, who went on to become its first democratically elected leader in 1996. Tensions erupted into Chinese military action twice — in the 1950s then again around a Taiwan election in the mid-1990s. China passed a law in 2005 authorizing an attack if the island declares independence. Even with only a handful of nations recognizing Taiwan, its 23.5 million people have built their economy into a technology and manufacturing powerhouse. Average income is three times greater than that of China. Much of Apple's iPhone is made by Taiwanese companies, while tech



Photo: Ulet Ifansasti/Getty Images

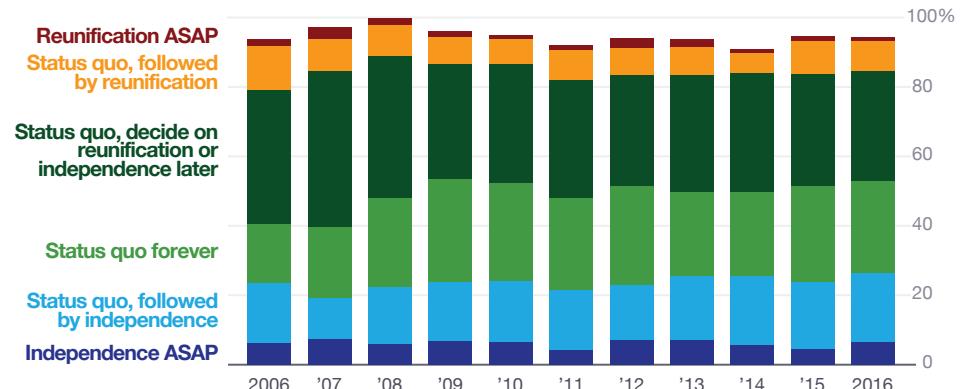
giants including Taiwan Semiconductor Manufacturing Company lead the world in making computer chips for other firms.

THE ARGUMENT

China aims more than 1,200 missiles at Taiwan and no peace treaty has been signed in the seven decades since the governments split. While many China-watchers say there is too much at stake for military action, especially given the prospect of U.S. involvement and possible economic fallout, Trump's election has added a degree of uncertainty to old assumptions. China's actions in Asia's disputed waters have indicated a more expansionist and aggressive regional stance that point to a tighter grip on the likes of Taiwan and Tibet. Taiwan's voters, wary of the lack of political freedom in China, turned to Tsai to keep the peace while building international ties. While that's something of a challenge given China's influence, it reflects a view to a future less dependent on the mainland.

Reunify, Independence or Status Quo?

Percent of Taiwan residents favoring each plan



From surveys conducted for the Taiwan Mainland Affairs Council by the Election Study Center at National Chengchi University. Most recent survey was of 1,108 adults conducted March 18-22, 2016; the margin of sampling error was 2.94 percentage points. Those with no opinions are not shown.

Source: Mainland Affairs Council

PRESIDENTIAL NOMINATION AND SENATE CONFIRMATION

BY LAURENCE ARNOLD



Photo: Andrew Harrer/Bloomberg

Even billionaires can't get into a president's cabinet without vetting by the U.S. Senate. Donald Trump's choices to lead executive branch departments — and join the line of succession to the presidency — are among hundreds of nominees who will submit information to, and answer questions from, senators whose constitutional duty is to offer "advice and consent" on presidential appointments. Nominees are hardly ever rejected, especially at the cabinet level, and Trump has an extra advantage because his fellow Republicans control the Senate. The outlook for his nominees is better still, due to a rule change that Democrats might now be regretting.

1. HOW OFTEN DOES THE SENATE TURN DOWN A PRESIDENT'S NOMINEE?

Very rarely. The last time came in 1989, when a Democratic-controlled Senate rejected Republican George H.W. Bush's selection of John Tower as defense secretary. Before Tower, only eight cabinet-level nominees had suffered such a fate, including four picks of President John Tyler in 1843-1844. Twelve other nominations for cabinet posts were withdrawn under controversy, with half of those occurring under the last three presidents.

2. WHO NEEDS SENATE CONFIRMATION?

Lots of people, and not just at the start of a presidency. The Senate, during a typical two-year term, considers about 2,000 nominations to judgeships, the Foreign Service and government agencies and commissions. That's on top of about 65,000 military appointments and promotions. To handle the crush, the Senate often approves hundreds of nominations at one time. That leaves a few hundred nominations each year that get Senate investigations and public hearings.

3. WHY SO MANY?

The Senate's scrutiny goes far beyond cabinet secretaries. In the Treasury Department alone, presidential appointees who require Senate confirmation include the deputy secretary, three undersecretaries, six assistant secretaries,

two counsels, two regular inspectors general, one special inspector general, and directors of the U.S. Mint, the Office of Financial Research and the Office of Thrift Supervision. Plus some others.

4. HOW DOES IT WORK?

The Senate refers each nomination to its committee of jurisdiction, meaning the one that deals most closely with that office. All nominees must disclose financial holdings to, and answer questionnaires from, the relevant committee. A few committees also require three years' worth of tax returns. Hearings begin even before Trump takes office on Jan. 20.

5. WHAT POWER DOES THE COMMITTEE HAVE?

It can report the nomination favorably, unfavorably or without recommendation to the full Senate for a vote. It also can choose to take no action, which can effectively bury a nomination. Most committees have only one or two more Republicans than Democrats, so a Republican defector or two could help Democrats block a nominee.

6. WHAT'S THE POINT OF THIS, IF SO FEW NOMINEES ARE REJECTED?

Even if they can't block nominations, senators can use the well-publicized hearings to influence policy, by extracting promises from nominees or laying down conditions on which the nominee will

be judged. Committees can wrangle commitments from nominees to be receptive to their inquiries and invitations once in office.

7. HOW MANY VOTES DOES IT TAKE TO WIN SENATE CONFIRMATION?

A simple majority of 51, due to a rules change made by Democrats that will now help Trump. Until 1975, it took a vote of two-thirds of senators present (67, generally) to stop debate on a topic and move to a vote. A deal in 1975 reduced that number to 60, which still gave the minority party some sway in choosing what the Senate could consider. In 2013, Senate Democrats, then in the majority, forced through a change to a 51-vote standard. They hoped to break a Republican-led logjam of nominations under President Barack Obama. Now, only nominations to the Supreme Court require the support of 60 senators to advance to a vote.

8. WHAT HAPPENS IF THE SENATE REJECTS A NOMINEE?

The process starts again, with a new nomination by the president.

CONGRESSIONAL REVIEW ACT

BY SUSAN DECKER



Photo: Drew Angerer/Getty Images

President Barack Obama fought with Congress almost since he took office in 2009 — even when his own Democratic Party was in charge. Faced with recalcitrant lawmakers, Obama acted largely through a combination of executive orders and agency regulations on the environment, power-plant emissions, net neutrality, immigration and infrastructure. He's now racing to finalize new rules before he leaves office on Jan. 20. In response, Republicans are threatening to wield a little-used power, the Congressional Review Act, to rein in what they see as more overreach by the man they've called "Emperor Obama."

THE SITUATION

The next U.S. president, Republican Donald Trump, has promised to get rid of oodles of government regulations. Before he takes office, federal agencies are scurrying to issue rules on everything from air pollution to workplace safety. Republicans, who will hold majorities in both the House of Representatives and Senate in the next Congress, have warned that these may be short-lived. While Congress doesn't typically bother with the thousands of bureaucratic rules created each year, when lawmakers want to stop one they can use the Congressional Review Act. It applies to regulations expected to have an annual effect on the economy of \$100 million or more, and allows up to 60 working days to call a vote to invalidate a new rule. Because Congress was in session relatively few days last year, it's not just last-minute regulations that could be voted down. A Congressional Research Service memorandum said that all regulations finalized since late May 2016 could be negated.

THE BACKGROUND

Facing a hostile Congress, President Bill Clinton used executive actions and regulatory agency rules in the 1990s to promote his policies on issues like welfare, tobacco, gun control and health care. To counter this, Congress created the Congressional Review Act in 1996. It was part of a broader law, the Contract with America Advancement Act, that sought to push Republican goals for a smaller federal government. Since then, the law has been invoked dozens of times, but has been used successfully only once. This was in 2001, when ergonomics regulations put

in place by Clinton were overturned by Congress at the start of the presidency of his successor, George W. Bush. Like all congressional bills, these measures can be vetoed by the president. Since a president isn't likely to sign measures that negate his administration's rules, the act is most likely to be used successfully against a previous president's orders. Earlier in Obama's term, Republicans used the measure to challenge rules on birth control, carbon emissions, the health-care program known as Obamacare and more, but lost the votes or Obama vetoed the moves. Congress has tried and failed several times to take the review law a step further by mandating that all regulations reaching the \$100 million threshold be approved by lawmakers.

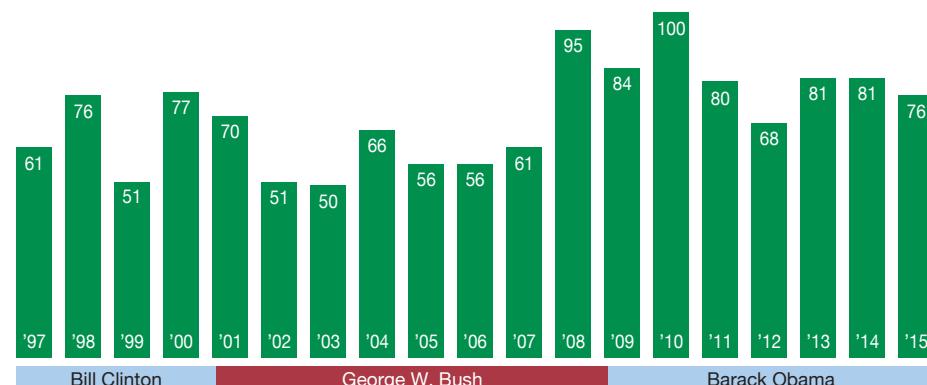
THE ARGUMENT

Proponents of the act like that its use forces lawmakers to go on the record

about controversial subjects. It also increases government transparency, since it's prompted the U.S. Government Accountability Office to now post all federal rules on a searchable database. Potential pitfalls of the law include the fact that agency regulations have to be rejected in their entirety — Congress can't keep parts it might like. And if a review act vote doesn't pass, the regulation goes into effect immediately, often putting it in force sooner than would otherwise be the case. Even if a vote fails, Congress has other tools to battle rules. Proposed new regulations give Congress the opportunity to drag agency heads into hearings, which can be unpleasant enough to curb the impulses of more ambitious agencies. Congress also has the authority to cut funding for an agency until regulators fall in line.

Big-Ticket Rules

U.S. government rules published each year with an annual economic effect of \$100 million or more — rules that could have been subject to the Congressional Review Act



Source: Congressional Research Service

HOUSE REPUBLICANS' PLAN FOR A TAX REVOLUTION

BY LYNNLEY BROWNING

President-elect Donald Trump and the Republican-controlled Congress want to undertake the biggest overhaul of the U.S. tax code in three decades, with steep rate cuts across the board for businesses and individuals. But Republicans in the House of Representatives want something else: a radical shift in the way U.S. corporations are taxed. They'd scrap the 35 percent corporate income tax rate in favor of a system described as — brace yourself — a "border-adjusted, destination-based cash-flow tax."



Photo: Andrew Harrer/Bloomberg

1. WHAT DOES THAT MEAN?

Taxing products based on where they're consumed — that is, their destination — rather than where they're produced. "Border-adjusted" means that corporations' exports wouldn't be taxed, only their imports. "Cash-flow" means the tax is based on a company's patterns of revenues and expenses, not just its income. To sum up: The plan calls for collecting corporate taxes based on the value of goods and services sold domestically. That's a tectonic shift away from the current system, which is aimed at collecting taxes on companies' worldwide income.

2. WHAT WOULD THE RATE BE?

20 percent, making the U.S. corporate rate competitive with that of other developed nations.

3. EXAMPLE, PLEASE?

Say an American company makes widgets at a factory in North Carolina. If it sells those widgets in the U.S., they'll be taxed at 20 percent. If it exports them to Iceland, they won't be taxed. Now say a second American company makes widgets out of components it buys from a factory in Mexico. If it sells those widgets in the U.S., they'll be taxed at 20 percent. If it exports them to Iceland, it would pay the equivalent of a 20 percent tax on the materials it imported from Mexico. That's the key difference: The House Republicans' plan allows companies to deduct the cost of domestic materials used in their products — but not imported products. It's the functional equivalent of a tax on imports.

4. WHY ARE LAWMAKERS RECOMMENDING THIS APPROACH?

House Republicans say their plan would make the U.S. tax system more competitive while eliminating the incentives that have led companies to

defer taxes on an estimated \$2.6 trillion in profits that they're holding overseas. U.S. companies would no longer see a need to shift profit offshore, because their profit wouldn't be taxed in the U.S.

5. HOW WOULD THAT WORK?

U.S. policy makers worry that the current tax system gives companies incentives to shift their profit — and, in some cases, their manufacturing jobs or their corporate tax addresses — overseas. (Trump's mentioned this as well, of course, on more than one occasion.) Those incentives stem from unusual features of the U.S. tax code: The 35 percent corporate tax rate is the highest in the developed world, the tax is applied to global profits, and companies can defer paying U.S. taxes on their foreign earnings indefinitely. As long as they don't try to return an overseas subsidiary's income to the U.S. parent, they don't have to pay any tax on that income.

6. WHY FOCUS ON CASH FLOW INSTEAD OF INCOME?

Accounting rules give multinational companies lots of flexibility in terms of determining how, when and where to book income. Companies can set up business structures and transactions — such as transferring key intellectual property to offshore subsidiaries and then licensing it back to other units — that shift income to low-tax countries and expenses to high-tax countries. Shifting to a cash-flow basis — dependent on a company's domestic sales — removes that flexibility.

7. WHAT WOULD BECOME OF THE \$2.6 TRILLION IN OFFSHORE PROFIT?

The House plan proposes to transition to the new system by taxing companies' accumulated foreign profit at a one-time, reduced rate (8.75 percent for profits held in cash or cash equivalents; otherwise, 3.5 percent). Once that one-time tax is paid, companies would be free to bring

their offshore earnings back to the U.S. — known as repatriation. Going forward, any dividends paid to U.S. companies by their offshore subsidiaries wouldn't be subject to federal taxes.

8. IS TRUMP ON BOARD?

He's proposed a tax rate of 10 percent on all the accumulated foreign profit. On the overall corporate tax rate, he proposes 15 percent to the House Republicans' 20 percent.

9. HOW WOULD THIS AFFECT COMPANIES?

U.S. companies that rely heavily on imported materials or goods — think Wal-Mart Stores Inc., which buys heavily from China, and clothing makers that have their production plants overseas — say they'd pay higher taxes compared to competitors that use domestic materials.

10. ISN'T THIS LIKE A TARIFF ON IMPORTS?

Maybe. Proponents argue that border adjustments are neither tariffs nor export subsidies — both of which might be frowned upon by the World Trade Organization. Why? Because a tax on domestic sales combined with a tax on imports creates "paired and equal adjustments that create a level playing field for domestic and overseas competition," in the words of economists Alan Auerbach and Douglas Holtz-Eakin. Opponents say that using border adjustments with a direct tax, like the cash-flow tax envisioned in the House plan, would violate WTO rules that allow for them only on so-called indirect taxes, like value-added taxes.

11. WHAT DOES THE WTO SAY?

The House proposal would be uncharted territory for the trade organization. The U.S. is a WTO member, but Trump has said repeatedly that he would seek to renegotiate U.S. trade agreements.

RUSSIAN GAS

BY ANNA SHIRYAEVSKAYA



Photo: Andrey Rudakov/Bloomberg

Europeans who want to get tough with Russia must face a chilling fact: They need Russian natural gas to stay warm in the winter. About a third of the continent's gas comes from Russia, a vulnerability laid bare by shutoffs during freezing weather in 2006 and 2009. Central to the predicament is the conflict in Ukraine, which carries the bulk of Russia's European-bound gas via a Soviet-era pipeline network. Alternatives for powering Europe's homes and factories come at a much higher cost. So despite pledges to reduce its dependence, Europe is buying more gas than ever from its eastern neighbor. That means gas remains a powerful tool of Russian foreign policy.

THE SITUATION

The European Union has stepped in repeatedly over the years to try to settle disputes between Russia and Ukraine and avert disruptions in supply. But the most recent talks, in December, made little headway. Ukraine stopped buying gas from Russia for its own use in 2015 — the year after Russia annexed its Crimean peninsula — and relies on resale of Russian gas from neighboring countries instead. The EU has also accused Gazprom, the Russian state-controlled gas producer, of abusing its market power in some eastern European countries. Meanwhile, plans for new pipelines to bypass Ukraine and cement ties to Russia have divided European leaders. There's an agreement to double the capacity of the Nord Stream route under the Baltic Sea, which links directly to Germany, the biggest buyer. In October, Russia formalized a plan to build a second gas pipeline through Turkey. Russian gas faced increased competition globally after the start of U.S. shale gas exports in 2016. To help protect its market share, Gazprom has been offering more flexible prices and terms. Gazprom and Ukraine's Naftogaz are still fighting over billions of dollars worth of unpaid bills and contested prices dating back more than a decade.

THE BACKGROUND

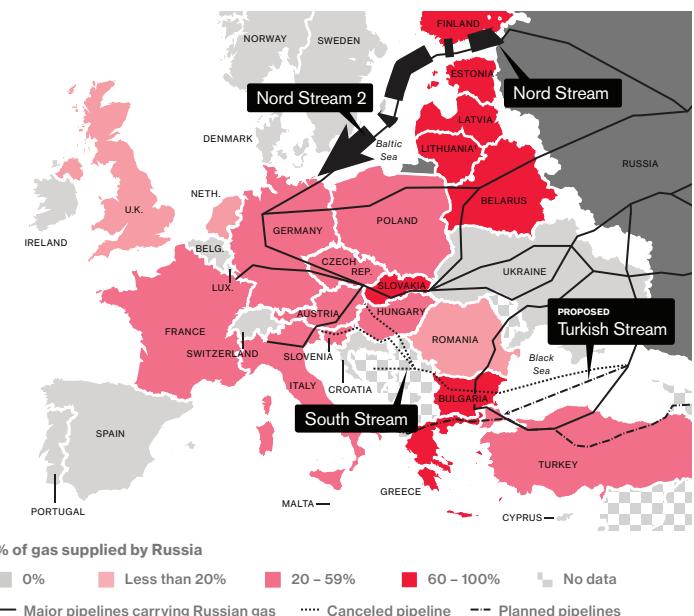
Russia began exporting gas to Poland in the 1940s and laid pipelines in the 1960s to deliver fuel to captive Soviet satellite states. Supplies to Europe were steady through the Cold War. The two major shutoffs were triggered by pricing disputes after Russia accused Ukraine of siphoning gas. The second disruption, in the icy winter of 2009, lasted almost two weeks and halted all gas transit to the EU via Ukraine, leading to a scramble for supply. Slovakia and some Balkan countries had to ration gas, shut factories and cut power supplies. Since then, better infrastructure has been built to create a more integrated market for gas, which provides about 20 percent of Europe's energy. The EU has repeatedly vowed to diversify its energy supply and the most vulnerable countries have raced to lay pipelines, connect grids and build terminals to import liquefied natural gas. Russia also plans to sell more gas to China, raising the prospect that Europe may eventually have to compete with Asia for Siberian fuel.

THE ARGUMENT

Around Europe, dependence on Russian gas varies widely — ranging from the bulk of supply in eastern Europe to

zero in Spain and Portugal — making it difficult to forge a unified approach. Efforts to become less captive have been complicated by Germany's decision to shun nuclear power and coal and by widespread opposition to fracking as a source of natural gas. They also come at a cost. Eliminating Europe's dependence on Russian gas could require as much as \$200 billion in investment, according to analysts at Sanford Bernstein. Russia is keen to sell more gas to Europe to help pull its economy out of the longest recession in two decades, triggered by the slump in energy prices. It's also suffering from U.S. and EU sanctions stemming from its aggression in Crimea. Oil and gas taxes fund about 40 percent of Russia's national budget, and the industry enriches allies of President Vladimir Putin. Longer-term alternatives for Europe include bringing gas supplies from Azerbaijan and other parts of the Caspian region, along with importing more U.S. gas.

Who's Dependent on Russian Gas?



ELON MUSK

BY ASHLEE VANCE AND DANA HULL

Elon Musk continues to befuddle Planet Earth. Every time one of his companies stumbles, the entrepreneur seems to have another spectacular idea to announce — a Martian colony, a space-based internet or an 800-mile-per-hour transit system — to thrill and confuse. The co-founder of PayPal, Musk is the chief executive of both Tesla, the electric-car pioneer, and SpaceX, which ferries cargo for NASA. He's also chairman of SolarCity, the biggest installer of solar panels on homes in the U.S. He is admired and even idolized in Silicon Valley. But there and elsewhere, some are starting to wonder whether he's finally taken on too much. Is Musk trying to distract us from troubles at his companies, or are the doubters just the kind of shortsighted, risk-averse people Musk believes are holding us all back from a fantastic future?

THE SITUATION

By any measure, Musk's companies are under stress. In mid-2016, a Tesla sedan crashed while in autopilot mode, killing the person at the wheel. That prompted close scrutiny of the technology by both regulators and consumers. Tesla, which delivered roughly 50,000 cars in 2015 and aims to make 500,000 a year by 2018, is building a massive factory for battery production east of Reno, Nevada, and is working on not just the mass-market Model 3 sedan but an electric semi-truck and transit bus. It still struggles, however, to manufacture cars at expected rates. Musk's proposal for Tesla to acquire SolarCity faced criticism and shareholder lawsuits but was approved by stakeholders of both companies. SpaceX suffered a mysterious rocket explosion on the launch pad Sept. 1 that has put its future in a precarious position.

THE BACKGROUND

Born in South Africa in 1971, Musk moved to Canada at age 17 before attending the University of Pennsylvania. He and his brother Kimbal started Zip2, an online publishing business, in 1995. Musk then founded a company that merged with a rival to form PayPal, which was sold to EBay in 2002 for \$1.5 billion. He plowed his share into new ventures. In 2008, both Tesla and SpaceX were days away from collapsing, and Musk was forced to borrow money from his friends. As General Motors and Chrysler filed for bankruptcy amid a global economic crisis, he persuaded investors to put more money in Tesla. Next up, he persuaded NASA to give SpaceX and its still-wobbly rockets a try. After four more years of clever engineering, good luck and sheer force of will, Tesla and SpaceX reached somewhat stable footing. In 2012, Tesla produced the all-electric

Model S, a high-performance sedan that even Musk skeptics in Detroit hailed as possibly the best car ever built. SpaceX docked a rocket with the International Space Station and SolarCity went public.

THE ARGUMENT

Musk's current problems are less dire than those he faced in 2008, but Tesla, SpaceX and SolarCity are no longer experiments. Failure now would put thousands of jobs and billions of dollars at risk, and SpaceX has become crucial not just to the U.S. space program but also to countries and companies around the world hoping to put up satellites. Musk's supporters say he has built up enough credibility and has



Photo: Daniel Acker/Bloomberg

enough star power to raise money with relative ease or to be bailed out by one of his many ultrarich friends who share his aspirations. Just on technological merits, Musk's companies have already changed the world. To the extent that the electric car is a commercial reality, it's largely thanks to Tesla. While it receives less attention, SpaceX and the revitalization of the U.S. aerospace industry may be Musk's most stirring accomplishment. But at every point where his companies seem to be on stable footing, Musk takes on more and promises more, erasing the memory of past gains. The question is whether Musk can continue to operate on the edge of what's possible — the key to his achievements so far.

Musk's Adventures

Tesla Electric automaker

- 2004** Musk invests \$6.4 million to get Tesla off the ground; becomes its chairman
- 2008** Tesla Roadster begins deliveries; Musk becomes CEO
- 2010** Tesla IPO
- 2012** Tesla Model S begins deliveries
- 2014** Tesla breaks ground on giant battery factory in Nevada
- 2016** Model 3, below, is unveiled



SpaceX Space exploration

- 2002** Founded by Musk
- 2008** Falcon 1 reaches orbit
- 2012** Dragon reaches International Space Station
- 2016** Rocket booster lands on drone ship for first time. Explosion destroys rocket during fueling. Interplanetary Transport System, right, is announced.



PayPal Money transfer service

- 2000** Musk's company merges with X.com
- 2001** Renamed PayPal
- 2002** Sold to EBay for \$1.5 billion

SolarCity Solar energy services

- 2004** Founded by Musk's cousins, Peter and Lyndon Rive. Musk is chairman.
- 2012** SolarCity prices IPO at \$8 per share
- 2016** Tesla announces plan to acquire SolarCity in all-stock transaction

THE STREAMING REVOLUTION

BY LUCAS SHAW

Get on a train or airplane these days and you're likely to be surrounded by people watching movies, TV shows or videos or listening to music on their phones, tapping into vast digital libraries on the internet. It's a sight we already take for granted, but the streaming revolution that's made it possible is only just beginning. For consumers, the technologies that allow media to unspool in a steady, continuous flow of data over high-speed connections have provided a leap in convenience and choices. For traditional distributors of entertainment, though, it's a challenge. For some who make music or TV shows, it's a way to expand audiences. Others consider it a rip-off.

THE SITUATION

Streaming is rapidly changing how media is bought, how it's consumed, who profits from it and even how much is made. Thanks in part to streaming, the battered recorded-music industry saw significant revenue growth in 2015 for the first time in almost two decades, even as sales of physical formats like CDs fell. Revenue from music streaming has multiplied fourfold in five years to \$2.9 billion globally. Popular services include Pandora, Apple Music and Spotify, which aims to sell shares in an initial public offering in 2017 and has been valued at more than \$8 billion. Revenue from video on demand, meanwhile, rose almost 9 percent in 2015 to \$49 billion, by one estimate. In a 2015 Nielsen survey conducted in 61 countries, about two-thirds of respondents said they streamed video. Netflix, Amazon and Hulu are among the major providers. Original programs offered by streamers almost doubled the number of scripted TV shows that aired in the U.S. from 2009 to 2015, to 417. Live video streaming from users of Facebook and Twitter is the most recent innovation to challenge the way news is received.

THE BACKGROUND

On-demand services took off in the mid- and late 2000s. Streaming frees audiences from the higher costs of owning discs and paying for subscription TV via cable, satellite or internet. It liberates TV viewers from network schedules, giving rise to binge watching — viewing multiple episodes of a show in a single sitting, one of the most popular aspects of video streaming. Streaming's success has put pressure on sales of DVDs, subscription TV, CDs and music downloads. In doing so, it is the latest media format to threaten what came before it. The CD, which appeared in the 1980s, overtook both albums and cassette tapes as the preferred format within a decade in the U.S., the biggest music market. Then music downloads began to crush CD sales (and those of recordings in general) in the 2000s, as consumers used the internet to capture mostly single songs instead of full albums to listen to on portable players like Apple's iPod. Television broadcasters were threatened by cable networks, which in turn have been rivaled by satellite TV. Before being challenged by streaming, the DVD player, introduced in the 1990s, had made the video-cassette recorder obsolete.



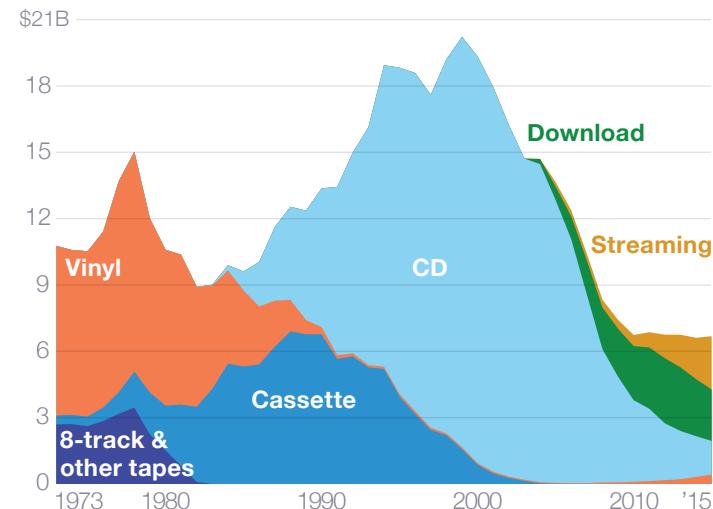
Photo: Getty Images

THE ARGUMENT

Music streaming services pay record companies a fraction of a cent per play for songs and say they spend heavily on royalties. Yet some musicians, notably Taylor Swift, complain that they are insufficiently compensated. Some industry analysts say artists should renegotiate their cut with the record companies instead of lambasting streamers. Streaming can make it easier for new artists to gain a following, by eliminating the need to fund album distribution. In the video realm, meanwhile, there's a debate over how seriously streaming threatens pay television. Certainly it has encouraged cord-cutting — the cancellation of subscription TV, especially in the U.S. Most consumers regard on-demand services as a supplement to rather than a replacement for subscription TV, according to the Nielsen survey. In that case, the more imminent threat is cord-shaving, choosing a slimmer channel package. The long term is cloudier for subscription TV, given that many young people are so-called cord-nevers.

From Vinyl to Streams: The Evolution of Music Formats

Recorded-music revenue in the U.S. by platform, adjusted for inflation



Source: Recording Industry Association of America

FAKE NEWS

BY SARAH FRIER

Photo: NurPhoto via Getty Images



Fake news has become big news. There's an emotional debate over the explosion of information on the internet — and on social media sites in particular — that's provably false or intentionally misleading. As content of dubious authenticity swirls on platforms like Facebook, Twitter and Google, many in the media worry consumers may lose trust in stories that are actually true. Social media companies, Facebook especially, make millions in ad revenue by distributing information, but the last thing they want are the responsibilities that come with being a publisher, like making sure that stories are accurate.

1. WHY IS FAKE NEWS IN THE NEWS?

Some Hillary Clinton supporters say a flood of fake items may have helped sway the U.S. presidential election in favor of Donald Trump. They're not alone. The "impresario of a Facebook fake-news empire," Paul Horner, told the Washington Post, "I think Trump is in the White House because of me." BuzzFeed found that of the 20 fake election stories that were most shared, commented-on and reacted-to on Facebook, 17 were pro-Trump or anti-Clinton.

2. WHAT WERE SOME OF THE BIGGEST FAKE ELECTION STORIES?

That Pope Francis endorsed Trump. That an FBI agent suspected of leaking Clinton's e-mails was found dead. That a protester admitted being paid \$3,500 to disrupt a Trump rally. That Trump once called Republicans "the dumbest group of voters in the country." That Clinton and her inner circle ran a child-sex ring based at a Washington pizza restaurant. (That last one prompted a North Carolina man to visit the restaurant with an assault rifle and a plan to "self-investigate.")

3. WHAT CAN BE DONE?

Facebook Chief Executive Officer Mark Zuckerberg initially played down the idea of fake news on the social network being a problem. But now Facebook will let users flag content as "fake news" and enable partners including the Poynter Institute's International Fact-Checking Network to label stories as disputed, a judgment that means the story can't be

turned into a Facebook paid ad — one avenue toward viral promotion.

4. DID FAKE NEWS REALLY INFLUENCE THE ELECTION'S OUTCOME?

It's hard to say. What's clear is that this was the first election in which the majority of U.S. adults got their news from social media. And if they were getting it on Facebook, that news came to them in a very personalized, filtered fashion. When people are fed the news they want to be fed, they may not encounter information that challenges their assumptions.

5. WHO'S PRODUCING FAKE NEWS?

It can come from many sources. Some purveyors are in it for the advertising-sales money, like teenagers in Macedonia pumping out pro-Trump articles or a pair of 20-something friends in California who call themselves "the new yellow journalists." Others are trying to push an agenda. Sometimes the machine is fed by plain old mistakes: Since social media makes everyone a potential reporter, an innocent observation that happens to be wrong can take off, if enough people want it to be true.

6. HOW DOES IT DISSEMINATE SO QUICKLY?

A post-election Pew Research Center poll found that 23 percent of Americans say they have shared fake news, intentionally or not. Most people click on, and share, stories that spark surprise, sadness, anger or confusion. Facebook's algorithm promotes posts that trigger that kind of attention. Advertisers pay for slots next to

these stories. Finally, the flat landscape of social media wipes out many of the filters we used to use to judge content. At a newsstand, there's a clear difference between the Washington Post and the National Enquirer. But their Facebook posts can look similar in your timeline.

7. WITH ALL THE FOCUS ON FACEBOOK, WHAT ABOUT TWITTER?

It's not getting hammered as hard by the public on this issue. It's not that fake news doesn't get shared there — on the contrary, as Trump demonstrated by tweeting about "the millions of people who voted illegally." But where Facebook decides what goes into people's news feeds based on its algorithm, Twitter shows users everything posted by everyone they choose to follow, in reverse-chronological order.

8. CAN AN ALGORITHM TELL WHAT'S TRUE AND WHAT'S FALSE?

The internet presents a spectrum of information, with hyper-partisan opinion stories masquerading as news, plus lots of satire and funny memes. What's an algorithm to do? Facebook's engineers have trained their algorithm to know that if something is really popular, it must be relevant. It might be easy for the company to suppress an outright hoax — by, say, searching for the topic on a major news site, or detecting a Snopes.com article debunking it — but it's harder to automate the decision on what to do about propaganda-like content meant to rile people up.

Bloomberg Briefs

Take your free trial of Bloomberg Briefs newsletters today!

The newsletters pull together the reporting, insight and analysis of over 45 senior editorial staff and dedicated economists to help you stay informed and ready for your daily business needs. They also offer cutting-edge access to proprietary Bloomberg data and breaking stories that move markets. With more than 30 titles to choose from, Bloomberg newsletters are uniquely positioned to provide you with the scope, depth and market intelligence you need.

Real-Time Briefs	Municipal Market
Economics	Oil Buyer's Guide
Economics Asia	Power & Gas
Economics Europe	Private Equity
China	Real Estate
Clean Energy & Carbon	Structured Notes
Corporate Treasury	Sub-Saharan Africa
ETFs	Technical Strategies
Financial Regulation & Risk	Deutschland (free brief)
Hedge Funds	Family Office (free brief)
Hedge Funds Asia	London (free brief)
Hedge Funds Europe	Reserve (free brief)
Latin America	Sustainable Finance (free brief)
Leveraged Capital & Distress	QuickTakes (free brief)



88%
of readers say their
Brief helps them do
their jobs better



To set up your free 30 day trial:
Visit www.bloombergbriefs.com or call us on
+1-212-617-9030 and we'd be happy to set you up.
Ask about our group subscription savings too.

www.bloombergbriefs.com



Digital Newsletters for the
Global Financial Market

QuickTake Team Leader

Leah Harrison Singer

Editors

Laurence Arnold
Lisa Beyer
Grant Clark
Anne Cronin
John O'Neil

Art Director

Christopher Yerkes

Photo Editors

Sam Hall
Tom Hall

Graphics Editors

Samuel Dodge
David Ingold
Dave Merrill
Alex Tribou
Hayley Warren
Chloe Whiteaker

To contact the editor responsible for QuickTakes:

Leah Harrison Singer
lharrison@bloomberg.net +44-20-3525-2936

Find Bloomberg QuickTakes:

On the Bloomberg terminal at **QUICK <GO>**
On the web at bloomberg.com/quicktake
Or by searching "bloomberg quicktakes" on your web browser

Produced by Bloomberg Briefs:

On the Bloomberg terminal at **BRIEF <GO>**