A TIME OF TURMOIL:

AT HOME & ABROAD, ALL ORDER IS CHALLENGED

THE U.S ECONOMY IS STILL HEALTHY, BUT IN A WORLD BALANCED ON A KNIFE'S EDGE EXPECT EVENTS TO CHANGE QUICKLY... AND BE PREPARED

55th TREND/FORECASTING REPORT

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INTRODUCTION

With this letter please receive with our compliments our 55th Trend/Forecasting Report. We are grateful for the responses to previous reports and the recognition that we have gotten so many issues right.

What follows is based on hundreds of discussions and interviews with some of the smartest and best-connected people in the world.

Our lives are going to change dramatically in the period ahead as a result of the trends we foresee. Start preparing now.

Consider just these challenges:

- The polarization of the U.S. political system;
- The Trump presidency;
- Brexit:
- The upcoming election in Germany;
- North Korea, now armed with nuclear-tipped missiles;
- An increasingly aggressive and robust China with focus on the economy, the South China Sea and much more:
- Russia's new strength and its ambitions in Eastern Europe and elsewhere.

That is just the tip of the iceberg. There is more ahead:

- Breakthroughs in the medical world where modern science is delivering
 extraordinary results every day. Much remains to be achieved, but major
 steps are being taken in treating diabetes, cancer, heart disease and more.
 But the price of pharmaceuticals is skyrocketing and will be a major issue in
 next year's midterm elections.
- Technology is taking us to levels never before imagined. In preparing this report we came across a fascinating set of predictions. While we do not subscribe to them all, including the predicted times of arrival, many are worthy of consideration as you do your own long-term planning. The document is appended to this report.
- By 2020—three years from now—50 percent of the U.S. workforce will be Millennials and they will account for more than \$400 billion in annual spending.

- The social, political and economic influence of the U.S.'s Latino population will continue to grow. African Americans will be a distinct but increasingly important minority.
- Donald Trump will continue to bypass the press and other traditional channels of communication and reach out to the public on his own terms, causing the media to discuss what he says, rather than just report it.
- The Russians and Chinese will keep testing the U.S. in general and President Trump in particular. Putin, always ready to sow discord, is watching for signs of weakness in the West as he eyes Eastern Europe and Central Asia.
- The U.S. educational, health care and tax systems are going to be criticized, debated, and changed even more than they have been in recent years.
- Perhaps most of all, be on the lookout for a growing anger in this Country and around the world. People here feel the opportunity that should be theirs may not come. Around the world the person in the street sees no future and is more than concerned.

Of great significance will be the midterm elections. The Democrats need to win 24 new seats to capture the House. It is likely the Republicans will hold the Senate. The run-up to the elections over the next 14 months promises to be more than interesting.

Much of what is covered in the following pages will define the next generation and perhaps the generations to come for the next 50 to 60 years.

While many critics continue to attack Donald Trump, he still has many supporters who believe he will do positive things for the Nation. They are convinced he can heal the wounds of the past months, deal with the many problems abroad, especially Russia, and, in time, help bring Americans together again.

It's certainly true that Trump's cabinet selections are people who have done things in the world, not just politicians. That could presage a new era of leadership in America that will motivate young men and women to come forward to serve their country.

In Italy, the annual Ambrosetti Conference featured outstanding speakers, including Mohamed El-Erian—Chief Economic Advisor at Allianz; Niall Ferguson—Senior Fellow of the Hoover Institution; Lindsey Graham—U.S. Senator from South Carolina; Enrico Letta—Dean of the Paris School of International Affairs, Sciences Po; Tom Ridge—First U.S. Secretary of Homeland Security; Alec Ross—former Senior Advisor to Secretary Hillary Clinton and now running for governor of Maryland; Jean Claude Trichet—Former President of the European Central Bank; Gerard Baker—Editor-in-in-Chief of *The Wall Street Journal* and many more. Current forecasts for key economic areas and the Eurozone are appended to this report.

With this broad perspective in mind, and based on our continuing discussions over the past 12 months with hundreds of experts in diverse fields, including business, finance, journalism, the arts, academia and the non-profit sector, we have identified another set of noteworthy trends for 2017 and beyond.

This Report, then, as it has for 27 years, focuses on critical thinking and on how you might apply it in your life, your business, or whatever pursuits you follow. Though there are many demands on your time, we urge you to put aside a few moments, whenever convenient, to read it thoroughly.

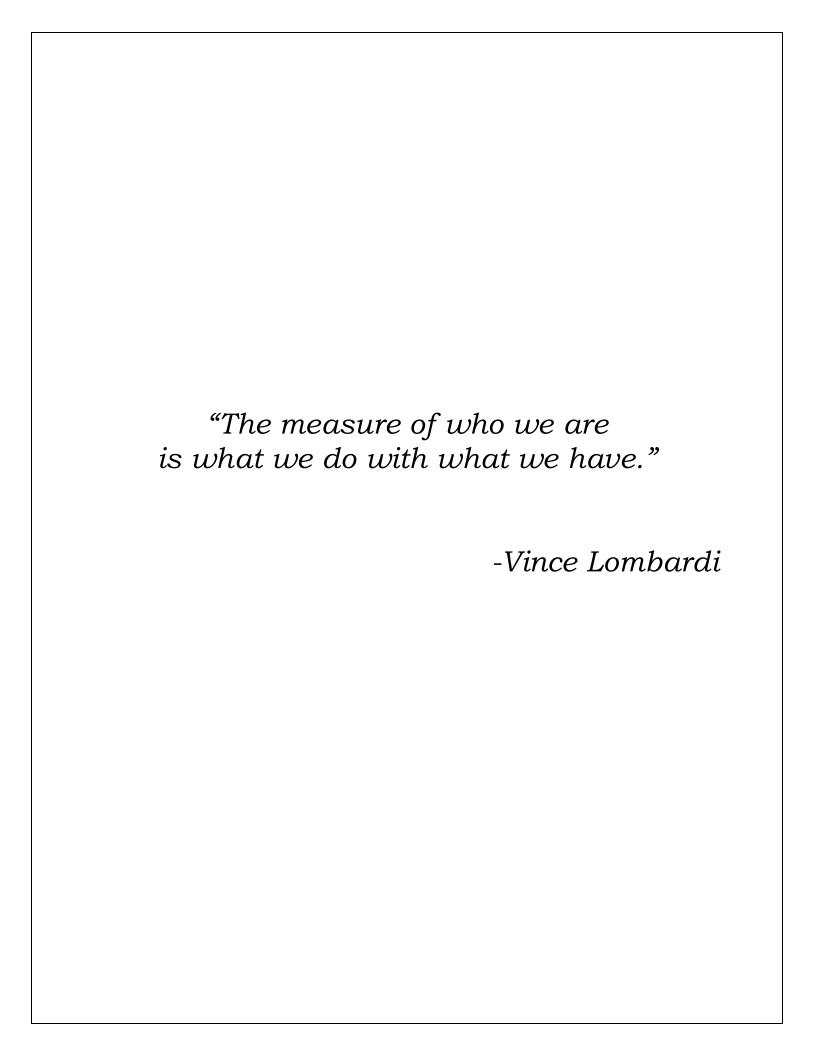
We would, of course, be pleased to hear any response you might have to this effort.

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THE ECONOMY: STILL GROWING, BUT WATCH OUT FOR A SLOWDOWN

An old German adage says, "Trees don't grow to the sky." Economies don't keep growing forever either, and stock markets don't always go up. Yet for almost the past decade, the economy has grown and markets kept rising.

Can both go on that way?

We don't know, but we're seeing enough signals to suggest that business should be doing two things at once: Continue to take advantage of good business conditions. Prepare for slower growth and disruptive change.

First the good news:

The median household income reached a record \$59,039 last year, surpassing the previous high set in 1999. It was an increase of 3.2% over 2015 after adjusting for inflation. What's more, the number of Americans living in poverty declined in 2016, while the share with full-year health insurance increased.

The U.S. economy will grow this year for the eighth year in a row. It will probably rise by a modest 2%, in line with the trend of this long, slow recovery. Europe will likely grow about as fast, and China and India by 7% and 6% respectively, slow by their lights.

The Organization for Economic Cooperation and Development, the developed countries' policy and information sharing institution, said in late August that all 45 countries it tracks will register economic growth this year, the first time that's happened since 2007. The OECD also said 33 of those countries will grow faster this year than they did last year, the most since 2010. And the International Monetary Fund projects world economic growth of 3.5% this year and 3.6% next year, both up from 3.2% in 2016.

This coordinated growth is due to several factors, including unprecedented Central Bank dovishness since the 2008 economic crisis. The Bank has kept interest rates low and supplied unbounded amounts of capital through bond purchases and other mechanisms. Both in the U.S. and Europe, these purchases are going to have to be gradually undone. There has also been a steady growth in international trade, plus the benefits, perhaps transitory, of lower energy prices.

In the U.S., labor markets are tightening as unemployment reaches a 16-year low. Stock markets seem to set new records every week.

Some people see a Trump bump in the stock market numbers, and it's clear that promises of fewer regulations—more than 800 regulations have been eliminated or rolled back—and lower tax rates under President Trump and a Republican-led Congress did spur optimism. That seems to be receding a bit as reality takes hold.

That reality includes still slowly rising incomes for the average worker and subdued although still healthy consumer confidence. It also includes a realization that the failure so far of Congress to repeal and replace the Affordable Care Act will make it harder, for technical and political reasons, to pass any comprehensive tax reform this year or approve a massive infrastructure program. Optimists had written both of these into their forecasts.

What's more likely is a cut to the corporate tax rate, down from 35 percent to something in the 20s, although probably not to the 15 percent level President Trump has championed. This should spur investment, as will the rollback of regulations that businesses have said are holding them back.

It is quite possible too that there will be a call for companies to return monies they have kept overseas.

U.S. companies hold an estimated \$2.6 trillion in cash and assets overseas. They may be offered tax incentives to repatriate this money, in the hope that some of it will be used for job-creating investment at home.

Watch for a positive market reaction if President Trump changes leadership at the Federal Reserve.

Now the possible bumps:

A big infrastructure program—the president has talked of \$1 trillion—looks increasingly unlikely this year, as does an across-the-board tax cut that could swell the deficit by another \$1 trillion.

Markets don't like soaring deficits and debt, and political gridlock has kept market interest rates low—the benchmark 10-year U.S. Treasury note rate hovers around 2.3%, and it appears the Federal Reserve is done raising rates this year.

Markets also don't like uncertainty. Less than a year into his term, Trump has been beset by investigations into his campaign's possible collusion with Russia, as well as allegations of corruption against his former national security adviser, campaign manager and trusted son-in-law. Trump's combative tweets have reinforced an appearance of chaos in the administration.

More worrisome are growing signs of protectionism. The Trump administration's pullout from the Trans-Pacific Partnership and threats to impose 35 percent tariffs on Chinese steel and other products have already hurt American farmers and other businesses. The remaining TPP nations, including Singapore and Australia, are writing trade deals of their own that exclude the U.S.

There are tensions overseas as well. The British vote last year to leave the European Union (known as Brexit) is putting real pressure on the City of London as Europe's financial center, with banks moving personnel to Dublin, Frankfurt and elsewhere in advance of likely U.K. immigration restrictions. And the relatively slow growth in China has roiled markets ranging from iron ore to pork bellies to tanker rates.

The administration's proposed curbs on legal immigration, should they be adopted, will squeeze farmers, retailers and hoteliers who already face labor shortages. (Passage looks unlikely, however. More than 1,400 economists signed a letter opposing the bill proposed by Republican Senators Tom Cotton of Arkansas and David Perdue of Georgia, and politicians from both parties have denounced it.)

Some labor shortages already lurk within the low 4.3% rate, which has often been called full employment by economists. While the coal industry suffers, oil and gas drillers in the Midwest can't find enough welders (there's been a 24-hour welding school in Houston); truckers can't find enough cross-country drivers (many firms now offer truck cabs with full kitchens, beds and satellite TV as incentives), and technology firms can't find enough computer coders (and will be squeezed hard by any curb on legal immigrants.)

IMPLICATIONS FOR BUSINESS:

- Take advantage of still-low interest rates and relatively high consumer confidence to expand your business, especially if you can capitalize on technologies such as mobile shopping and web advertising.
- Identify and hold onto your best employees. If labor shortages intensify, you'll need them. If the economy turns down, you'll need them even more.
- Spread calm. In an era of news immersion (with not all the "news" either new or true), expand efforts to reach out to your staff with information about company policies and benefits. Stay away from politics, but stress real economic conditions in your area that will affect their lives and families.
- Be active. Use your government affairs staffs, personal contacts or outside consultants to inform politicians of regulations or laws that positively or negatively affect your business. This is a fertile atmosphere for change, but change can go against you.
- If you don't speak up your competitors certainly will.
- Be aware. Good times are the best times to prepare for the worst. Make sure contingency plans are up to date, and everyone in the company is looking for signs of competitive weakness that can be shored up. Encourage and listen to whistleblowers and complaints. Real problems need to be solved.

DID YOU KNOW?

During the 1907 financial panic, John Pierpont Morgan locked a group of bankers in his Madison Avenue library overnight to force them to come to an agreement to save the economy.

TRUMP CONTINUES TO BE TRUMP, AND SO PREDICTABILITY CONTINUES TO BE ELUSIVE

Take a deep breath and prepare for continued turmoil in Donald Trump's White House. Despite the steadier hands of his three generals, John Kelly as chief of staff, James Mattis at the Pentagon and H.R. McMaster as national security adviser, President Trump continues to relish his early-morning tweets and often unpredictable behavior.

With business yearning for predictability and stability, analysts are still trying to figure out when the president will get together with congressional Republicans to deal with such pressing problems as tax reform and infrastructure investments. Trump was elected to deal with these serious problems, so why, some want to know, is he draining the nation's patience and wasting his political capital by rehashing such settled issues as transgender service in the military.

Trump's real impact so far is in the agencies where regulations are being systematically disassembled. Few have noticed this. Business, which has long yearned for fewer regulations, is getting its wish, although it takes longer to go through the review process than Trump expected. Still, regulations are being peeled away in the Interior, Energy and Commerce Departments as well as the Environmental Protection Agency, Nuclear Regulatory Commission and elsewhere.

The president's heated rhetoric about North Korea has rung a lot of alarm bells, and actual preparations for war have been made inside the Pentagon. But the United States is not about to launch a preemptive strike against the Hermit Kingdom. Instead, strategists are trying to figure out how to live with a nuclear North Korea while convincing China to help enforce tough economic sanctions against Kim Jong-Un's regime.

Meanwhile, the political establishment remains puzzled over Trump's public castigation of Senate Majority leader Mitch McConnell for his inability to get repeal of Obamacare passed. After all, it was John McCain, once ridiculed by President Trump for being captured and tortured during the Vietnam War, who cast the deciding vote against repeal.

If special prosecutor Robert Mueller's probe into Russian influence in the Trump campaign and its interference in the 2016 election turns up anything, McConnell could be leading the Senate during an impeachment proceeding. But few expect any results from Mueller's investigation for months, if then.

Throughout it all, Trump seems intent on keeping the support of his base, the loyal followers who continue to believe he will get them higher wages, better jobs, more affordable health care, and, perhaps most of all, a feeling of self-worth and purpose.

These core supporters see him as a take-charge businessman who is willing to shake up the establishment, fight the status quo in Congress, and take no guff from foreign leaders.

The significance of this support should not be underestimated, especially in light of the nation's deep political polarization. Trump may well stay in power because great numbers of Americans privately think like this: *I keep paying higher and higher taxes*, but *I don't see any benefits for me or my family.* So why would *I want to keep government as usual? Why would I want government to expand?*

Consider this, too: From all the polling done in the past few months, one finding stands out—only one-fifth of Americans pay serious attention to politics. Most of the time, 80 percent of Americans take no interest, not even in times of scandal. They don't know what the political parties stand for and decide their votes—if they vote—on personality, charm, looks and trust.

<u>IMPLICATIONS FOR BUSINESS:</u> Be prepared to adjust at a moment's notice. <u>But</u> be focused on and follow your business plan and have good reasons that can be stated in public for doing so. Make sure you are ready to go public with these reasons if attacked. This may go down as a glory age for journalism. Investigative reporting and fact checking are on the upswing, and so is circulation and viewership. It is too soon to tell if Trump will moderate his attacks on the media, but he is coming under enormous pressure to do so. And presidents do grow in office.

A NEW THIRD PARTY? DON'T RULE IT OUT

Unintended consequences are one of the recurring factors in American politics, and Donald Trump's election may present the Republicans with one of the biggest of all time: The splintering of the GOP and the creation of a powerful new third party.

So intense are the conflicts between establishment Republicans and the Trump faction that observers as diverse as Steve Bannon and The Weekly Standard's Bill Kristol have predicted the party will be engaged in "civil war"—their exact words—by early next year. If neither side is willing to compromise, a permanent split could result.

Third parties fueled by populist fury at Washington have come and gone in American politics, but in the modern era none has lasted. This time could be different, for several reasons. One is that outsider money is available on a scale never before imagined—think of the tens of millions that billionaires like Peter Thiel and the Mercer family poured into the 2016 campaign. And they weren't just supporting Donald Trump, they were out to ignite a new libertarian movement in American politics. Their breed is not going away.

Second is the growing number of Americans who have little or no loyalty to either major party. How many is unknown, but the passions ignited by both the Trump and Bernie Sanders campaigns indicate a lot of voters want the old order overturned. A third party might look like just the thing to do it.

Finally, Trump himself may represent a whole new kind of candidate. He entered politics laterally without ever having run for office, so he was uninhibited by the cautious habits that traditional politicians adopt. His unscripted, take-no-prisoners style seemed a welcomed relief from what many saw as the usual mealy-mouthed, focus-group-crafted candidates.

That's caught the attention of other billionaire businessmen—Mark Zuckerberg, for instance—who are reportedly wondering if they too can write their own ticket to the White House. If the regular parties balk, running as a heavily funded third party candidate with a message of disruption could look tempting.

The Democrats have their internal division too, of course—the passionate left against the moderate middle. But that split is nothing like the bitterness that fractures the GOP. Right now at least, Republicans have the most to worry about.

<u>IMPLICATIONS FOR BUSINESS:</u> Democrats will no doubt observe the old political rule that says never get in the way when your opponent is shooting himself in the foot. Republican business people, on the other hand, face a serious challenge. If steering the GOP back to its mainstream, business-friendly traditions is their goal, they have their work cut out for them.

THE SENATE & ELECTORAL COLLEGE: UNDEMOCRATIC BY DESIGN

The Electoral College was key to a Trump victory and will be important to future campaigns. How significant is that? Consider this: In his book "How Democratic is the American Constitution?" the late Robert Dahl—widely considered the dean of U.S. political scientists—contended that the Nation's founding document fails the democracy test, and the Electoral College was a major reason why.

Using one person, one vote as his gold standard, he concluded that the U.S. Senate, which awards every state two senators regardless of its population size, is particularly undemocratic. This failing carries over to the Electoral College, where every state gets two votes for its two senators, plus one vote for each member it has in the House of Representatives. This distribution of power tips the scales in both institutions in favor of small-population states.

How serious is this imbalance?

Here's one way to look at it: About one-fourth of the U.S. population lives in three states—California, Texas and New York—that elect six senators. Another fourth of the population lives in 31 states that elect 62 senators. As a result, each senator from Wyoming, the smallest state in terms of population, represents 293,000 people. Each senator from California represents 19.5 million people. One person, one vote is nowhere in sight.

The undemocratic structure of the Electoral College means a candidate who loses the popular vote can still win the presidency by capturing enough small states. That happened twice in the nation's first 212 years (1876 and 1888). Now it has happened twice in the last 16 years—2000 when Al Gore got 540,000 more votes than George W. Bush, and 2016 when Hillary Clinton won 2.9 million more votes than Donald Trump. The Country accepted these results because that's how the Constitution works. But each time, democracy was thwarted—a strange and troubling outcome for a nation that sees itself as the emblem and chief promoter of democratic government around the world.

Could the Constitution be amended to democratize the Senate and Electoral College? Doubtful. After all, the small states that benefit now would have to approve any changes. And one of the unwritten rules of human affairs is that people rarely give up power willingly.

<u>IMPLICATIONS FOR BUSINESS:</u> If the preservation of democracy is essential for the Nation's economic health, then anything business leaders can do to support it is in their best interest. Among the possibilities: Make it clear to political leaders that the gerrymandering of congressional and state legislative districts—something both parties are guilty of—is unacceptable and that nonpartisan redistricting commissions should be the universal rule.

DID YOU KNOW?

EU leaders gathered in Rome this year to mark the 60th anniversary of the organization's founding.

THE DEMOCRATIC PARTY: WHO IS IN CHARGE?

At this writing the Democrats are in need of a leader.

There are plenty of individuals out there who want this position—Chuck Schumer, Nancy Pelosi, Elizabeth Warren, Bernie Sanders, Corey Booker, Mark Warner, even Hillary Clinton.

But none of these individuals has emerged to lead the party. Without such a leader, Republican victory in the 2018 midterm elections is virtually guaranteed.

While the approval ratings for Donald Trump are very low, just 42 percent of Americans view the Democratic Party in a positive way.

Only 37 percent of Americans believe the party stands for something. Indeed, Democrats, aside from fighting and complaining, are still working out how to challenge the president politically.

IMPLICATIONS FOR BUSINESS: If the Democrats cannot get their act together the Republicans will have a field day on all their issues. That said, look for intense focus on the "undecideds."

DID YOU KNOW?

Teddy Roosevelt set aside about 230 million acres of public land for future generations—an endowment 50 percent larger than the State of Texas.

ONE BELT, ONE ROAD: CHINA'S ECONOMIC APPROACH TO ACHIEVING GLOBAL POLITICAL CLOUT

Make no mistake about it—China is on the move in all areas and is determined to be the number one power in the world.

Through its One Belt, One Road initiative, China has begun welding an enormous international alliance together, with all roads leading back to Beijing. It's entirely in keeping with the country's preference for an economics-first style of leadership.

China's size and purchasing power offer mouthwatering trade opportunities for small, mid, and large-sized countries, primarily through bilateral deals. And those deals have great political consequences: When these countries know that disagreeing with Beijing means losing trade revenues, leaders think twice. That is modern Chinese power—not as a political hegemon like the U.S., but as a politically savvy merchant nation.

China's One Belt, One Road initiative is its effort to create the world's largest economic platform. It seeks to link the Asia-extended region through large infrastructure projects, like roads, bridges, pipelines, ports, railways, and power plants. The plan includes some 68 countries—all the Asian nations one would expect as well as countries from Israel and Palestine to New Zealand and Ethiopia. It encompasses over 4 billion people and two-fifths of global GDP.

Nepal is a good example of the political sway China seeks to gain through the plan. China and India have a longstanding dispute along their Himalayan border, and Nepal is stuck between these two Asian superpowers. Last year, Beijing pledged \$8.3 billion to build Nepalese infrastructure, far exceeding the \$317 million India has promised. In response, Nepal has joined China's One Belt, One Road initiative, awarding a Chinese firm the contract for a large hydroelectric power plant immediately after the decision. Not only economically but also politically, therefore, Nepal has cast its lot with the superpower to its North.

Although 57 countries were represented at the first Belt and Road Summit in Beijing in May, some of the details of the plan still remain hazy. There are said to be five main projects so far:

- 1. London Railway—A railway linking Yiwu, China, to London, an 18-day journey that will pass through Tibet, Kazakhstan, Turkey, Russia, Belarus, Poland, Germany and France.
- 2. Gwadar Port—A plan creating road links from China's Xinjiang region through the China-Pakistan economic corridor to the Pakistani sea port of Gwadar.
- 3. Railway to Iran—A freight line extending from China to Tehran, solidifying China's physical presence in the Middle East.
- 4. Asian gas pipeline system—Four gas lines connected to natural gas reserves throughout Central Asia, helping to feed China's growing need for energy.
- 5. Khorgos Gateway—A rail line connecting Kazakhstan to China that will create what is expected to be the "biggest dry port in the world" in the Kazakh town of Khorgos near the Chinese border.

IMPLICATIONS FOR BUSINESS: As China amasses more economic and political clout, expect it to play a more assertive role on the global stage. This could take many forms. For example, its aggressive territorial claims in the South China Sea and its rejection last year of the Hague tribunal ruling against those claims indicate a new willingness to defy the international order to achieve its aims. The global power structure in place since the end of World War II, which China sees as privileging the Western nations that created it, may come under increasing challenge.

All this said, look for the countries of the West to try to find ways that on the one hand benefit from China's expansion and at the same time try to keep China in check.

DID YOU KNOW?

Four-fifths of the world's window-mounted air conditioners are made in China.

RUSSIA KEEPS CREATING TROUBLE FOR THE WORLD AND FOR ITSELF

Russia is a conflicted country that causes enormous anxiety and problems for nations around the world and, of course, the USA.

On the one hand Russia, under Vladimir Putin, is capable of anything from the assassination of Boris Nemtsov on a bridge over the Moscow River, to tampering with elections in any number of countries.

At the same time, Russia is addressing a dangerous protest movement. Putin has responded with arrests, torture and more, coupled with his own charm offensive.

Putin's rise to power—he has been in the driver's seat for 17 years—is the story of a novel, and if the reader of this trend would like to discuss writing this book, please let us know.

Putin's four-hour documentary by U.S. director Oliver Stone showcased several interviews with him over more than three years. But "The Putin Interviews" unfortunately proved to be just a valentine to the Russian leader.

But with all that, the Russian president, probably the richest person in the world, has problems, and history shows that no politician is invulnerable. Alexei Navalny, who wants to run for public office, is especially a problem for Putin because of his campaign against corruption. Thousands support him and there have been demonstrations in the street.

Navalny says he will run for president in 2018. Watch this campaign closely. Meantime, the Country is in trouble. Unemployment, inflation, health issues—a quarter of Russian men die before 55, mostly because of alcoholism—an average monthly wage that is 8% less than last year's \$450, which is even lower than in China or Romania—add up to massive challenges for Putin, although he still claims to have an 80 percent approval rate.

Does Russia have native funds? Maybe. Most European nations get energy from Russia and are very reluctant to push the bear.

IMPLICATIONS FOR BUSINESS: Be very careful. There can be great rewards in doing business in Russia, but graft and corruption rule the landscape and if you get out of line the consequences can be dire.

INDIA, THE SLEEPING GIANT

Amid all the news about China, Russia, North Korea, Brexit and so much more, it seems that India is being overlooked.

But this Country of more than 1.3 billion people is thriving and, despite its still high rate of poverty, seems destined to play a major role on the world stage in the coming years.

The opportunity for sales of consumer products is huge, and a highly trained and skilled workforce, in which many of the managers have been educated in the U.S., is making headway in dozens of businesses.

Over against this is the fact that too many systems in the Country are corrupt. An "old boy" network still rules in government and much of the business world, with great numbers of politicians and businesspeople ready to do under-the-table deals. Infrastructure problems in many regions—roads that become impassable, unreliable communications, etc.—can also be a challenge. Extra caution is necessary before making any binding business commitments.

India's relations with China are not good and could erupt at any time. And, of course, India is well aware of Pakistan being a haven for terrorists.

<u>IMPLICATIONS FOR BUSINESS</u>: Despite the limitations, there are tremendous opportunities in virtually every area. Just be careful and know who you are dealing with.

U.S.-CUBAN RELATIONS: UNDER TRUMP THE NEXT STAGE WILL BE COMPLICATED

President Trump outlined plans in Miami last June to reverse one of President Obama's signature initiatives, saying he was "canceling the last administration's completely one-sided deal with Cuba."

The reality is more complex. Diplomatic relations and some other ties will be maintained, including commercial air service, cruise visits and the continuation of already established business deals. And fortunately, it will still be legal to bring back Cuban rum and cigars! However, other relationships will be seriously curtailed.

Trump has provided only broad outlines of his new policy, so it is only when he rolls out the specifics that we will be able to assess the full impact. But it's known that he plans a ban on tourism which, while technically illegal under Obama, was allowed for individuals visiting the island under the broad category of people-to-people exchanges. The most significant change Trump will make is prohibiting commerce with Cuban businesses owned by the military and intelligence services. That could have an enormous impact, since the military-run Grupo de Administración Empresarial S.A. (GAESA) is said to control about 60 percent of the island's economy, including hotel chains, car rental agencies, banks, remittance services, supermarkets, gasoline stations, import and export firms, and construction companies, to name just a few.

For instance, a GAESA subsidiary, Gaviota, which owns the brand-new luxury Gran Hotel Manzana and controls some 29,000 other hotel rooms, is believed to service approximately 40 percent of the island's tourism. Avoiding doing business with GAESA entities like that will prove, to say the least, difficult.

A further storm cloud for Cuba is the current situation in Venezuela, which for years has supported the island's economy with as much as 72,000 barrels a day of subsidized oil. In return, Cuba has sent doctors, intelligence officials and other workers to Venezuela, most notably President Nicolas Maduro's bodyguards who are all Cuban. Venezuela's economic problems have led to a 13 percent reduction in oil shipments to Cuba this year, threatening to worsen gasoline shortages and power outages.

Still, the Cuba-Venezuela friendship remains strong. For example, Cuba backs Maduro's new constitutional assembly, which is stacked with his supporters and which the U.S. and many Latin American countries have called a dangerous step toward dictatorship. Given the Trump administration's attitude toward Venezuela—the president has even hinted at taking military action there—this could further roil U.S.-Cuban relations.

A final complication is a recent report of American and Canadian diplomats in Cuba suffering hearing loss and possible brain damage from a mysterious source. Some have speculated the diplomats have been subjected to sonic waves from listening devices planted in or near their homes. The Cuban government has denied responsibility and says it is cooperating in the investigation.

IMPLICATIONS FOR BUSINESS: President Raúl Castro has taken steps recently to further open the Cuban economy. But it remains a country committed to a socialist economic model, so doing business there is never easy. The new Trump initiatives will only make conditions harder for American businesses on the island.

QATAR, SAUDI ARABIA & GULF STATES STANDOFF

The rift between Qatar and Saudi Arabia and its neighbors in the Gulf dramatically widened this past spring.

Thirteen non-negotiable demands were made of Qatar including closing its *Al Jazeera* media empire, cutting off its relations with Iran, expelling Islamists and stopping support for the Muslim Brotherhood. Qatari officials have dismissed the demands as "neither actionable nor reasonable."

Saudi Arabia and the Gulf States closed all air space to Qatar's burgeoning commercial air carrier and closed all borders and sea routes. Among other nations, Egypt has taken sides against Qatar, while Turkey announced it would deploy ground troops in support of the country.

The ruling Thani family of Qatar in siding with Iran is now in open conflict with all of its neighbors. The full significance of this conflict is not fully understood in the West.

Energy-rich Qatar has used its financial resources to strengthen its economy and security. It has announced reforms and enhanced its relations with Turkey and Iran.

Senior State Department and Pentagon officials have tried to defuse tensions as Qatar is home to 10,000 U.S. military personnel at Al Udeid Air Base.

Qatar—one of the top global producers of natural gas—is working to diversify its economy and cut its dependence on its Gulf neighbors for food and other supplies. Food from Saudi Arabia and the UAE has been replaced by products from Turkey and Iran.

Qatar is working to strengthen its ties with the West to counter the loss of its former allies. It announced the \$6 billion purchase of seven Italian warships, and in June it bought \$12 billion worth of F-15 fighter jets from the United States.

Look for this conflict to seriously heat up unless some compromise or negotiated deal comes about.

IMPLICATIONS FOR BUSINESS: This is a real wild card. The quarrel between Saudi Arabia and Qatar represents a problem with global dimensions as any conflict will result in energy prices soaring. Hostilities could break out along the fault lines of the greater Iran/Saudi – Shia/Sunni rift lines. The Al Udeid Air Base in Qatar is at risk.

The U.S. will need to deploy its diplomatic skills, muscle and all its global leverage in order to settle this. And it must act immediately.

LATIN AMERICA: A REGION IN DISARRAY

Argentina, Brazil, Venezuela, and indeed every country in Latin America, is struggling and the future does not seem positive.

Is this important?

Sure is. Tens of millions live there, many in poverty. Trade has enormous possibilities, but little is being done.

Political upheaval and poor economics are creating enormous strain and financial uncertainty.

Millions are in poverty today and it is getting worse, with no signs of turning around. For example, Brazil's economic downturn has put 14 million people out of a job.

Lack of upward mobility, high unemployment, income inequality, corruption and crime are rife in this part of the world.

The future?

It is going to take new political leaders, a business establishment that bands together and a level of commitment from the people in the street to reverse the current situation.

Keep an eye on Venezuela's President Nicolas Maduro, who seems determined to turn his country into a dictatorship; on next year's Mexican elections; and on how Brazil deals with its corruption scandals.

IMPLICATIONS FOR BUSINESS: This is a place to gain or enhance a foothold now, but be very careful.

Expect Russia to play a growing role in Latin America, specifically in Venezuela where the national oil and natural gas company, PDVSA, has become heavily dependent on Russian financial aid for its survival.

TERRORISM WILL REMAIN A THREAT FOR YEARS TO COME

Terrorism is with us in huge measure and will continue to vex us.

We have written about this trend for twenty years.

It is as bad now as it has ever been.

If we drive terrorists out of Afghanistan, they will take more position in Pakistan. If we go after them there, they will deepen their involvement in Iran.

It is predicted that Britain will have to confront Islamist terrorism for at least another twenty years.

This may be conservative.

The roots of terrorism go way back, but it all started in earnest in 1979 with the Iranian revolution, the Soviet invasion of Afghanistan and the siege at the Grand Mosque in Mecca.

Leaders of people in the street saw the power of fundamentalist ideas and how they would upend the established order and motivate young people in particular.

Is this new? Of course not. In previous decades, the IRA and the Basque separatist movement known as ETA, Middle Eastern networks, violent Islamists in Algeria and, in the USA, white supremacists, the Weather Underground and more were all terrorist organizations.

<u>IMPLICATIONS FOR BUSINESS:</u> Terrorism did not start with ISIS or al-Qaeda and it will not end with them. Business needs to recognize this and build in physical and economic safe goals going forward.

DID YOU KNOW?

The national anthem of Spain is one of only four national anthems (along with those of Bosnia and Herzegovina, Kosovo, and San Marino) in the world to have no official lyrics.

IS ISIS DONE?

The end of the Islamic State is on the horizon. Due to its large losses of territory in Iraq and Syria and diminishing forces, it is likely that ISIS will soon fade into the background along with its predecessor al-Qaeda. That said, ISIS has built an array of wilayats, or provinces, to ensure its survival beyond the demise of its pseudo-state.

And those affiliated with the terrorist group will not disappear either. Amn al-Dawla, ISIS's spy service, will remain very active. Like the Hydra of Greek mythology, ISIS will re-emerge in the form of new heads on one terrible beast.

Expect many more attacks in Europe and some in the USA.

Talks of a merger between ISIS and al-Qaeda (or of al-Qaeda reasserting itself as the flag bearer of Sunni Jihad) are ridiculous. Neither organization has enough support to supplant the other, and there is no chance of reconciliation between the two.

The Islamic State's defeat will by no means spell an end to the United States' involvement in the conflicts of the Middle East and will likely deepen it. While full-scale invasions like the one in Iraq are off the table, troops will need to be deployed to various countries in the long term to protect our stake in the region.

Given that the Islamic State is not likely to be the last group to bedevil the Middle East, companies that have military contracts with actors in the region are likely to do well. Recall how the stock of Raytheon, the company that makes Tomahawk cruise missiles, shot up after the United States attacked an airbase in Syria.

<u>IMPLICATIONS FOR BUSINESS:</u> To arms manufacturers, terrorism is the gift that keeps on giving. Vulnerable spots: The Suez Canal is a matter of great concern, since without it ships from the West would have to travel around the southern tip of Africa to reach ports in Asia. Another sea passage, the Strait of Tiran, is the site of both Jordan's and Israel's only ports on the Red Sea. Any instability in the region will concern businesses interested in keeping these passages open.

Terror attacks will continue to be a threat. But at least the U.S. is less reliant on Mideast oil now than at any time since the 1950s.

IRAN SEES ITSELF AS "THE PLACE OF THE FUTURE"

Iranians remember the Persian empires of Darius and Xerxes some 2,500 years ago that stretched from western Afghanistan through Iraq, Syria, Lebanon and even briefly ancient Greece.

They are determined to recreate their glorious past. Maj. Gen. Qassem Soleimani is the Iranian leader to watch. He has defended Syria's murderous leader Bashar al-Assad, is a pal of Vladimir Putin and is positioned to take leadership when Supreme Leader Ayatollah Khamenei dies.

He hates America.

Iran is a haven for terrorists and leaders will exploit their assets to trouble many parts of the world.

IMPLICATIONS FOR BUSINESS: Iran has power throughout the region and, if it gets the chance, will make business different and dangerous for American companies.

DID YOU KNOW?

Concerned about the role hackers might have played in the American presidential election, the Dutch government announced that all ballots in its general election would be counted by hand.

EVERYTHING OLD IS NEW AGAIN

Nostalgia is all the rage these days.

As we face a world that seems to be more and more complicated and as people continue to feel increasing stress in their everyday lives, there is a movement toward nostalgia that allows people to be temporarily transported back to a time before the financial crisis, the increase in terrorist activities, the recent contentious elections, etc.

Thirty-four reboots are currently in the pipeline for beloved TV series like "One Day at a Time," "Dynasty," "Will & Grace," and "Roseanne." A new version of "Twin Peaks" recently aired on Showtime. Game shows have also returned to network television, including "The \$100,000 Pyramid," "Match Game," "Battle of the Network Stars," and "The Gong Show."

Nintendo recently experienced a rush of consumer demand not for an expensive new gaming platform, but for a reboot of the "low-tech" games released on the original console. Demand was so great Nintendo was unable to keep pace and eventually ceased manufacturing the unit. Originally released for \$59.99, the price eventually skyrocketed to hundreds of dollars through resale sites like EBay and Amazon, selling out everywhere it was available—a prime example of how the pull of nostalgia outweighs even greatly inflated prices. Another "old-school" Nintendo console is to be released in late September; it will be interesting to see if the demand carries on.

Sega and Atari also have issued "flashback" consoles.

There is movement towards printed books as well. Sales of consumer e-books dropped 17 percent in the U.K. in 2016 while sales of print books and journals rose by 7 percent over the same period, and children's books climbed 16 percent.

The same is true in the U.S., where e-book sales declined 18.7 percent over the first nine months of 2016, while paperback sales were up 7.5 percent, and hardback sales 4.1 percent.

The sale of vinyl records has grown 260 percent since 2009; they're now featured in stores such as Barnes & Noble.

IMPLICATIONS FOR BUSINESS: Many are looking to escape the problems of today. This is a movement that is rapidly taking root in society. It would be an error to overlook it.

ENVIRONMENTAL POLICY IS INCREASINGLY IMPORTANT TO COMPANIES' GROWTH STRATEGIES

Corporate environmental activism is growing in the United States, spurred by President Trump's decision to withdraw from the Paris climate agreement.

Many top U.S. companies, including Apple, Google and Microsoft, as well as giant energy leaders such as ExxonMobil and ConocoPhillips, publicly urged the president not to abandon the Paris accord.

Now that Trump has rejected their argument, environmental policy in the United States is becoming much more energized. For example, Michael Bloomberg, the former mayor of New York, and his Bloomberg Philanthropies charity are leading "America's Pledge," a campaign to measure the effect of all American company efforts to reduce carbon emissions.

<u>IMPLICATIONS FOR BUSINESS:</u> Large companies increasingly see "green" strategies as critical to their future growth, including their efforts to recruit the best and brightest from schools and colleges, and from their competitors.

THE FINTECH REVOLUTION: A PAYMENT SYSTEM THAT IS CHANGING THE WAY PEOPLE DO BUSINESS

We are in the midst of a massive disruption in the financial services sector. FinTech—a new, technologically based form of payment—is dramatically changing the way people participate in mobile transfers of funds, loans, fund solicitations, crowd funding, and asset management.

Don't make the mistake of thinking that this is a passing fad. Accenture notes that throughout the world, FinTech investments have grown from \$930 million in 2008 to well more than \$12 billion today.

In addition, FinTech is the leading way for millions of consumers in several countries in Africa to use their smart phone to buy virtually anything, including the least expensive goods on the street. Finland and Sweden are among the nations moving toward a cashless society. In virtually all the industrial nations, checks are being deposited with cell phones, a practice that is bound to grow explosively.

Companies—big and small—are able to more easily do business with overseas customers by automatically converting currencies.

FinTech has spawned another competitive space in what some believe will replace bank accounts. PayPal and Google are expanding their presence through "online wallets" that will allow consumers to pay most of their bills.

If there is a potential red flag for users of FinTech, it is the omnipresent danger of hacking. Cybersecurity specialists are constantly updating their software to protect FinTech accounts, but that is no guarantee of absolute security.

<u>IMPLICATIONS FOR BUSINESS</u>: FinTech allows for a more efficient and less costly way to transfer funds. For a small business, mobile technology facilitates customer payments for goods and services on the spot. PayPal and Square are two examples of companies that are thriving in the consumer payment area as a result.

DID YOU KNOW?

As Secretary of the Interior, Ryan Zinke is in control of 500 million acres —roughly one-fifth of the nation's land.

OUR THREATENED OCEANS

"Water and air, the two essential fluids on which all life depends, have become global garbage cans."

- Jacques-Yves Cousteau

The oceans represent more than 70 percent of the Earth's surface, are the origins of life on the planet and remain home to a majority of its plants and animals. However, the oceans are under siege as never before in a variety of ways, including the effects of global warming.

Last year was the hottest on record, according to NASA and the National Oceanic and Atmospheric Administration. It was the third year in a row to set a record for global average surface temperatures. Since the 1950s, every continent has warmed substantially. Most scientists attribute the rise in temperatures to increased levels of carbon dioxide in the atmosphere—higher than at any time in the past 400,000 years. They trace the cause to human activity, especially the burning of fossil fuels.

These issues are threatening the oceans in a variety of ways:

Oxygen Depletion: Almost all marine animals depend on oxygenated water. Recent studies have found that oxygen levels in the oceans declined from 1960 to 2010 by more than 2%, a significant decrease in terms of ocean life. Warming temperatures make it more difficult for the oceans to absorb oxygen. The absorbent top layer, because it is now less dense because of warming, is less able to mix with and oxygenate lower ocean layers.

Ocean Acidification: The oceans absorb about a quarter of the CO_2 we release into the atmosphere every year, so as atmospheric CO_2 levels increase, so do the levels in the ocean. The CO_2 absorbed by the ocean is changing its basic chemistry, making it increasingly acidic.

Coral Bleaching: Rising ocean temperatures have stressed 21 of 29 World Heritage coral reefs, including Australia's Great Barrier Reef. This is happening because coral is very sensitive to increases in temperature. If they stay higher than usual for many weeks, the zooxanthellae, tiny photosynthetic algae that coral depend on for some of their food, leave their host, causing the coral to bleach.

With ocean acidification, corals also cannot absorb the calcium carbonate they need to maintain their skeletons, causing reefs to dissolve.

Melting Ice Caps: An iceberg the size of Delaware recently broke off from Antarctica's Larsen Ice Shelf, yet another indication of the rapid change now occurring on the world's iciest continent.

Few climate scientists doubt that within a decade or two, the cap of ice that has covered the Arctic Ocean for tens of thousands of years, acting as a giant planetary air conditioner, will largely disappear in summer, replaced by heat-absorbing open ocean.

Plastic Garbage: The oceans are increasingly being filled with plastic garbage. Scientists on a recent expedition discovered the presence of a concentration in the South Pacific that may be bigger than the state of Texas. Rather than the plastic trash that most of us would think of, such as shopping bags or water bottles, the plastics found in the oceans are smaller than grains of rice.

More than 8 million tons of new plastic trash winds up in the oceans every year. The problem is compounded by the fact that 90 percent of sea birds consume it.

Overfishing: Two-thirds of the world's fish are overfished, and stocks are becoming dangerously depleted. Only one-third of fisheries are fished at levels that allow repopulation.

Paying attention to the plight of the oceans and the interconnectedness of all the world's bodies of water is the first step in addressing an emerging global crisis that impacts every aspect of human life, from food security to weather. There are many solutions available:

- 1. The United States is the only developed nation in the world not to adopt the International Law of the Seas which would give our nation and others more power to enforce illegal dumping, fishing and sea activities. Resistance is rooted in a deep distrust of the United Nations, but it may be time to put that aside in the interest of the oceans.
- 2. Streamlining regulations for U.S. fishing fleets would make economic sense for commercial fishers while refocusing on larger issues of protecting certain fish populations using real-time scientific data.
- 3. The United States needs to stake its claim in the Arctic Ocean by investing in ice breakers and building infrastructure for shipping and commerce, all while emphasizing environmental protection. The Arctic is a modern "Space Race" and other nations with less stringent concern for the environment, including Russia and China, are building up presence in the Arctic.
- 4. Consolidating ocean policy under one federal agency would allow for better coordination, implementation and enforcement.
- 5. The Coast Guard, the chief enforcement agency for domestic ocean issues, is woefully underfunded with aging ships and only one operational ice breaker for the Arctic. Funding for this key agency is critical for our future.

<u>IMPLICATIONS FOR BUSINESS:</u> Some 40 percent of the people on Earth rely on fish for their food. Serious damage to our oceans would have major consequences for feeding the world. As it is, nearly 800 million people are undernourished. Rising sea levels also threaten coastal areas around the world. The cost of preventive measures could run into trillions of dollars for governments, businesses and individuals.

DID YOU KNOW?

Around 50,000 workers in New York receive their wages on Global Cash prepaid payroll cards.

THE DOLLAR AND DONALD TRUMP

Historically, global tensions and conflicts have resulted in a strengthening of the U.S. dollar, since investors traditionally view it as the most secure place to hold assets. In recent months, however, there's been a movement in the opposite direction.

Following President's Trump's threat to resort to "fire and fury" against North Korea, global investors sold the dollar. They did the same thing following this summer's Saudi embargo on Qatar and again when Russia expelled 755 American diplomats. The dollar index has fallen every month since February, the longest losing streak in 14 years. It has lost 11 percent of its value against the European currency in the past six months.

Despite all this, the dollar remains the dominant currency for global trade and may even be on the cusp of recovering some of its losses. But there is evidence its status will continue to fluctuate due to the widespread uncertainty created by Trump's conduct of international relations.

Yet another factor that may affect the dollar is President Trump's ability—or inability—to achieve his economic goals. The so-called Trump trade—a bet that his plans for tax cuts, deregulation and substantial infrastructure spending would spur economic growth—can no longer be taken for granted.

But then, a weaker dollar may be exactly what the president wants. He may, in fact, be seeking a cheaper dollar in order to aid American companies that sell goods abroad.

<u>IMPLICATIONS FOR BUSINESS:</u> Since the United States imports more goods than it exports, a cheaper dollar effectively increases prices for American consumers on purchases from clothing to electronics to foreign travel. Companies will find it difficult to make business decisions not knowing whether the dollar will face continued weakness.

IS AMERICA TAKING A BACK SEAT IN EDUCATING FOR TECHNOLOGY?

Many would say the answer to that question is yes and that it is damaging our ability to compete in the world economy.

A study by Pew Research Center found that that U.S. students came in a dismal 38th found in a comparison of 15-year-olds' reading ability, math, science, literacy and other key skills. That places us behind countries like Estonia, South Korea and Portugal.

Proponents of improved technology education in the U.S. say it is necessary for our country to compete—both militarily and economically. China is currently expected to surpass the U.S. economically by 2030 or earlier.

At the initial meeting of the president's American Technology Council in June, technology company CEOs and educators called for improved STEM (science, technology, engineering, math) education in the U.S.

Tim Cook, Apple's CEO, reinstated his call for computer coding to be a required course in both grade schools and high schools. Ginni Rometty, CEO of IBM, told an interviewer after the session, "We've got to prepare not only this current generation, but anyone, because all work's going to include technology."

Tech company CEOs at the conference also asked for lower barriers to immigration, which would enable them to hire more highly trained technical workers from overseas. While the demand from U.S. technology companies for trained tech employees is reportedly all but insatiable, a larger cadre of qualified tech workers from within the U.S. would certainly help fill those ranks.

Achieving greater technological expertise is a key goal of U.S. education. At the same time, expanded use of technology in the classroom is an important way of improving it. For example, coming over the horizon in schools is cloud computing, which will enable students to upload assignments to software such as Google Drive for simpler review and grading by teachers.

<u>IMPLICATIONS FOR BUSINESS:</u> Having a workforce in which critical individuals are well trained in information technology is no longer a luxury, but a necessity. Supporting improved STEM education and technological training is therefore in every American company's interests.

DID YOU KNOW?

On the night of Paul Revere's ride, Sybil Ludington also took to her horse: The 16-year-old, the daughter of a colonel, rode an even greater distance than Revere to warn the Continental Army of approaching British forces.

THE AUTO INDUSTRY SHIFTS INTO NEW ERA OF ELECTRIC & SELF-DRIVING CARS

Americans have always loved their cars. But cars are changing. Most knowledgeable observers agree the industry is going to change dramatically. While the actual timeframe remains subject to debate, the 21st Century could witness the end of the internal combustion engine. Human ingenuity remains irrepressible, so it is just a matter of time before the current shortcomings of electric vehicles—limited range, long recharge cycles, etc.—are addressed.

Electric power is the current front runner to replace the internal combustion engine, but the prospect of fully autonomous vehicles promises to usher in even more dramatic changes in the way we utilize private as well as public transportation. Here, too, the timeframe is subject to debate. Most experts see the path to fully autonomous coming in stages.

Many of today's newest vehicles incorporate driver assistance technologies. Collision avoidance, assisted parking, and other sensor-based technologies are already taking us down the path to fully autonomous driving. Once fully realized, autonomous vehicles promise to make getting from one place to another incredibly fast, efficient and safe. But make no mistake, managing the movement of many millions of vehicles in real time is an almost incomprehensibly complex undertaking.

Artificial intelligence will certainly help make autonomous driving a reality. But systems and infrastructure needed to manage it all are still in an embryonic state. Most major automotive and tech companies have already announced autonomous driving projects or even whole business units. In partnership with both tech companies and traditional automakers, cities around the country and around the world have been conducting closely supervised tests of autonomous driving systems and vehicles. The race has begun.

Volvo has boldly put a stake in the ground and a nail in the coffin of the internal combustion engine. Earlier this year, Volvo announced that starting in 2019 all its new models will be either hybrids or powered solely by batteries. By 2024 Volvo plans to stop making any vehicles that run only on gasoline or diesel fuel. While the new electric cars initially will be made in China, a new plant is also being built near Charleston, S.C., and some will be built in Europe.

Tesla, the high-profile maker of luxury electric vehicles (EV), plans to sell hundreds of thousands of new electric models priced at "only" \$35,000. They will be serviced at 250 centers that don't charge service fees. If you live too far from a service center, Tesla will also have 350 vans that will go to your home or office to repair your vehicle on site. The vans will have toys for children, espresso machines and replacement parts.

Tesla has yet to turn a profit and to date has produced only a tiny, tiny fraction of the number of vehicles manufactured by Ford and General Motors. But its big ambitions have impressed many tech investors. Despite the absence of profits or demonstrated large-scale manufacturing capabilities, Tesla this year beat the two auto behemoths in stock market value. It is worth noting that virtually all of the traditional auto analysts have a sell or hold on Tesla's stock. The unbridled enthusiasm for Tesla's shares is being driven by tech investors enamored of an all-electric future for auto buyers.

There are some who doubt that EVs are the wave of the future in the United States. For one thing hybrid cars (gasoline plus electricity) still constitute only 2% of sales. That's partly because we love our big SUVs, and the price of gasoline has been declining. Also, we don't like to wait for lengthy charging times, and public charging stations are scarce. And we are used to driving long distances. Right now, electric cars don't go much beyond 200 miles on a single charge. All of these current shortcomings, however, are subject to man's relentless ingenuity.

Every major car maker is committed to investing in EV technology. The federal government has provided incentives to buy a \$35,000 battery-operated Chevrolet Bolt, for example. In Europe, grim statistics on health damage from diesel engines are sparking electric vehicle sales. And globally, there are estimates that one out of every seven new cars sold by 2025 will be electric-powered, compared with 1% percent today. Change remains a constant. It is the timeframe that is subject to debate.

<u>IMPLICATIONS FOR BUSINESS</u>: It is not too early to consider the ramifications for your business of a shift in car-buying patterns. Fully autonomous vehicles will be even more disruptive for the driving public and transportation private and public. EVs require fewer workers to assemble them, and there are fewer parts to break down. Without the need for vast quantities of oil for gasoline, the economy and global politics would change drastically. Meanwhile, the demand for lithium carbonate for all those batteries is soaring, and so is the price, more than tripling in five years. Will an even better battery or other alternative power source come in time? Quite likely. Faster, better, cheaper has been the story of mankind from the beginning.

ARTIFICIAL INTELLIGENCE WILL SOLVE MANY PROBLEMS, BUT CREATE MANY OTHERS

While a great deal has been written about the great advances Artificial Intelligence will bring in fields like reading X-rays, diagnosing illnesses, performing paralegal work, autonomous driving and much more, less attention has been paid to the potential downsides, like massive job losses and increasing ethical breaches.

Bill Gates has even suggested a "robot-tax" to help offset the displacement of jobs and other costs caused by AI. Not everyone agrees, however. "The trouble is that people don't understand the nature of the jobs that will be created. Data clearly demonstrates that innovation creates more jobs than it takes away," says Rep. John K. Delaney, D-Md.

David Kenny, IBM's senior vice president for Watson and Cloud has said, "The U.S. has a shortage of workers with the skills needed to work in partnership with AI systems. What we should focus on is realigning America's education system to emphasize skills rather than degrees. Many of the jobs available today in fields where AI is being applied require specific technical skills, but not always a bachelor's degree."

Congress has established an Artificial Intelligence Caucus to create policies related to the use and implementation of AI. Some of the issues being debated include:

- What should be done for communities where AI has a particularly big impact?
- Which transition programs might work, and what type of funding do they require?

<u>IMPLICATIONS FOR BUSINESS:</u> The U.S. needs to create a workforce that can work on AI systems, and it needs to lay out policies and programs to make that happen. Everything from education and job training to immigration policies needs to be reviewed on how to help companies stay competitive. What is needed most of all is a reasoned debate on how AI might shape a more productive and prosperous America, and how to achieve that without undue societal disruption.

HOW ROBOTICS AND ARTIFICIAL INTELLIGENCE WILL CHANGE THE WORLD OF WORK

The discussion about what automation will do to the workplace is red hot, with deep concerns about what lies ahead.

Fact is that technology has created more jobs than it has destroyed.

Will this continue to hold true?

About half of the jobs that people do can be automated, but only 5% of jobs can be entirely automated.

Robots, cognitive machines and simple software on the computer are the leading edge and human beings will work side-by-side with these technologies.

What will it mean?

Increasingly sophisticated work based on increasingly sophisticated information will come from technology.

Today tens of millions do not work in structured jobs. More than 160 million people engage in some form of independent work. Data shows these people have greater satisfaction with their work than those who have straight payroll jobs.

About 100 years ago electricity changed everything we do today. Artificial intelligence and technology are doing that again today.

<u>IMPLICATIONS FOR BUSINESS:</u> Business needs to find ways to become part of a digital economy. Uncertainty will prevail for many years. Automation will require people to adapt and change.

If this (automation) is done well the next generation will have better lives than we do today.

The issue of benefits, income-security measures and training need to be explored.

DID YOU KNOW?

The United States' 99 nuclear reactors supply one-fifth of the country's electricity. Six are scheduled to be retired by 2025; between them they generated more electricity last year than all American solar panels combined.

CYBERSECURITY: TOO IMPORTANT TO JUST BE LEFT TO I.T.

Cybersecurity is an intimidating topic. Protecting companies from the risk of cyber-attack can seem so complex and daunting that most business leaders choose the same strategy: delegate the responsibility to the IT team. While it's critical to engage the best technology professionals and resources to guard your business, executives who just cede this function to IT are making a huge mistake. The most effective attack-prevention techniques have nothing to do with sophisticated computing tools and everything to do with educated and careful employees.

The most important elements of any cybersecurity strategy are not firewalls or countermeasures, but rather smart behavior on the part of the workforce, reinforced by internal procedures that cultivate and enforce smart behavior. According to security experts, the two most effective steps companies can take to protect themselves from cyber-attack are: 1) Get employees to download every software update and security patch that arrives on their systems; and 2) Teach employees never to click on any questionable attachment.

These steps seem almost too basic and well known to be taken seriously, and so many companies fail to take them seriously enough. They deliver the message only during training for new hires, or perhaps through periodic emails from the IT team that, sorry to say, are rarely opened and even less often read.

In today's connected world, instilling employees with proper behavior for both online and physical security is a basic business imperative. It's not a job that can be left solely to the folks in IT. It must start with senior management, and it must bring in functions and resources from across the firm, including HR and departmental managers. It cannot be a one-shot or even periodic event. Rather, companies must provide continuous training refreshers (phishing tactics, for example, change constantly and can be fiendishly clever), and the CEO and other senior executives must adopt messages about smart behavior as part of their ongoing, everyday communications with employees.

While training and engagement initiatives will make up much of the "official" program, the real goal should be much bigger: to create a culture of awareness and caution that pervades the organization, cultivates safe employee behavior and protects the company from cyber-risks.

<u>IMPLICATIONS FOR BUSINESS:</u> Because employee behavior has such a profound impact on cyber-risks, cybersecurity efforts must start at the top. Every corporate Board of Directors should have a Cybersecurity Committee that is tasked with identifying best practices in instilling safe employee behavior, making sure management is fully informed on the issue and holding management accountable for establishing training programs and other policies and procedures needed to ensure an informed and secure workforce.

THE DARK SIDE OF THE WEB: ASSISTED SUICIDES, DRUG TRAFFICKING

It's no secret that the Internet has revolutionized the global sharing of information. But what is not fully appreciated is the dark side of social media—a quotient that is pernicious and all but impossible to control.

The Internet's dark side includes websites that give a road map for committing suicide, providing convenient markets for drug dealing and much more that is negative.

An Internet "game" called Blue Whale offers seriously depressed people—most of them young—a 50-day series of tasks that culminates with the player's taking his/her own life on the final day. Begun in Russia in 2013, it has spread not only to such Eastern European countries as Bulgaria and Serbia, but to those as distant as Argentina, Brazil, China and India.

Blue Whale's 50-day menu includes tasks like: "Carve a specific phrase on the person's own hand or arm," "Get up at 4:20 and go to the roof," and, finally, "Jump off a building." There is no accurate accounting for how many suicides and attempted suicides Blue Whale has facilitated, but estimates range up to 130.

An even more prevalent dark-side use of the Internet is illegal drug trafficking. Illicit drug websites usually use Bitcoin as a method of payment, complicating efforts to trace them and apprehend their operators.

The FBI shut down a leading drug site, Silk Road, in 2013, just two years after it opened. Its founder Ross William Ulbricht, known as "Dread Pirate Roberts," was convicted of seven charges in U.S. Federal Court in Manhattan and sentenced to life in prison without possibility of parole.

Sites on the so-called dark web typically operate under what seems like a privacy paradox. While someone with a dark web site's address can find it, there is no way to figure out who hosts the site or where it hides in plain sight.

Within the dark web is a sub category called the deep web. On the deep web, it is almost impossible to search for anything. Search engines do not perform there, so you need inside resources to reach the site you are searching for. In the deep web, estimates say that 90 percent of internet data and websites are hidden and can't be indexed by a search engine. There is also a large section of it for whistle blowers to expose people, organizations and governments for evil doing.

These sections of the web are far from secure. Multiple times the FBI, working with an American university, have hijacked this network and caught many dark net market users. Recently, Europol and the U.S. Department of Justice announced the shutdown of AlphaBay and Hansa, two of the biggest marketplaces on the dark web.

Within the dark web, cyber criminals trade in malware, stolen credit cards, personal data, and other information—also including firearms, drugs and other illicit items. Alpha Bay opened up opioid distribution channels that didn't previously exist. The site at one time had more than 21,000 listings for opioids and more than 4,000 for similar drugs before being shut down recently.

When authorities take down an illicit drug website, others quickly crop up to replace it. A study by researchers at Carnegie Mellon reported that anonymous marketplaces on the dark web bring in more than half a million dollars a day.

<u>IMPLICATIONS FOR BUSINESS</u>: Expect more of this as wrong-minded people seek to create benefit for themselves. An implicit requirement of companies is to do everything reasonably possible to protect the health and well being of their employees. Through human resources and employee communications channels, companies would be well advised to address the dangers promulgated through the dark and deep web. They also need to set up serious firewalls to keep people with sinister intent out.

FOR ALL ITS SIZE & REACH, FACEBOOK FACES SERIOUS RIVALS FOR YOUNGSTERS' LOYALTY

Facebook has enjoyed phenomenal growth and worldwide popularity since it was established in 2004, and yet its future may not be so bright. A stigma appears to be developing among the Millennials and Generation Z who grew up with it but now are having second thoughts. Young people who frequently post on Facebook are often labeled as "annoying" or "that political friend," a sarcastic reference to Facebook's extensive political content. They are turning instead to two rival social media platforms, Snapchat and WhatsApp.

What's Snapchat's appeal? Many young people look at peers who have paid a steep price for sharing too much personal information on Facebook and are seeking new platforms free from that kind of public exposure. Snapchat, where pictures and messages are available for only a short time before they vanish, fits the bill.

Although it is just one-eighth of the size of Facebook, Snapchat is expected to surpass it in the number of teenage users within a few months. A survey taken in the fall of 2016 found that 80 percent of American teens use Snapchat regularly, while only 52 percent did the same on Facebook.

Facebook is fighting back by adding features such as a picture queue at the top of its mobile app for instant posting and new opportunities for creating groups of friends who share similar interests, like enjoying the same TV show or having the same hobby. Teenagers, however, see these new features as proof that Facebook is desperate for user traffic.

Many Millennials and Gen Zers are also turning to messaging apps like WhatsApp to learn about and discuss current events. Facebook is still the top social media platform for news, but WhatsApp offers this distinct advantage: It utilizes end-to-end encryption, preserving confidentiality between the sender and receiver.

In countries that are enduring political unrest where it can be dangerous to express one's opinion on platforms the government can monitor, an app like that offers an opportunity to speak one's mind safely. Some news sites in South America have even added a "Share to WhatsApp" option on their pages. There is no way to quantify this yet, but it appears that in the future growing numbers of people will use such confidential platforms to get and discuss the news.

<u>IMPLICATIONS FOR BUSINESS:</u> Facebook will remain the dominant social media platform for the foreseeable future, and therefore a powerful advertising tool. But its long-term prospects are threatened by rivals that, at least for the time being, have particular appeal for young people. Businesses that need to reach this younger population should look carefully at Snapchat, WhatsApp and similar platforms as promising vehicles for reaching this audience.

MILLENNIALS: DEBUNKING THE MYTH

Those Millennials. Now our largest living generation (having surpassed Baby Boomers in April 2016), they are widely portrayed as riddled with caffeine and angst, awash in student debt, hopping from one underachieving job to another, living on cell phones and social media, and so spoiled by helicopter parenting that a few of the youngest ones have even brought their parents along to job interviews (one even had his Mom piped in via Skype). Over the past decade, a cottage industry has emerged devoted to informing the public about how the puzzling and unique attitudes of these young adults will transform business—and not for the better.

Our advice: Ignore most of it.

Take the widespread notion that Millennials are spurning car ownership in favor of environmentally friendly ride-sharing and living in walkable urban centers. Simply. Not. True. Nearly 80 percent of Millennials own cars (2017 Accel + Qualtrics Millennial Study). According to JD Power and Associates, Millennials in 2016 accounted for 29 percent of the car-buying market and will grow to 40 percent by 2020.

Where do such faulty perceptions come from? It's true that Millennials waited longer than past generations to buy their first cars. But it's wrong to assume this decision reflects some dramatic change in attitudes about automobiles. JD Power notes that Millennials entered the car market later than past generations "because of the lingering effects of the Great Recession." In other words: It's not that Millennials decided they didn't want cars. They were just too poor to afford them.

The same goes for homeownership. Millennials are much more likely than past generations to live at home with their parents. In fact, for the first time in U.S. history, 18-to-34-year olds are now more likely to live with their parents than to live on their own. But this trend doesn't mean Millennials have diverged from past generations on their views of home ownership. Instead, the shift is driven mainly by the fact that Millennials are waiting longer than past generations to get married and start families. The share of young adults living with a spouse or significant other peaked in 1960 at 62 percent. By 2014, less than one in three young adults were living in their own household with a spouse or partner. That fact, combined with a tough job market, makes staying at home a much more appealing prospect. (This is already starting to change. A survey by Bank of America earlier this year found that more than a third of Millennials already own homes, and that 68 percent of that segment says their current home is merely a stepping stone toward the one they want to end up in, compared with 36 percent of homeowners across all generations.)

There are many other misconceptions about Millennials. For example, a 2017 study by Pew Research Center showed that, contrary to popular belief, Millennials aren't jobhopping more than previous generations. In fact, Millennials with college educations are more likely to stick with their jobs than were Gen Xer's at the same stage of their careers.

The upshot of these observations: Millennials are much more similar to past generations than popular opinion allows. Until now, Millennials' youth and poor job prospects have stunted their economic development. Too many observers attribute this effect to some grand shift in generational attitudes, as opposed to the fundamental economic and demographic forces that have played a much larger role in shaping Millennial behavior.

IMPLICATIONS FOR BUSINESS: Expect Millennial spending patterns to move more in line with those of past generations and for Millennial demand to grow for an assortment of products ranging from home furnishings and appliances to home/auto loans, financial planners, accountants, lawyers and estate planners. With the oldest Millennials now hitting their mid-30s, the generation will begin to experience increasing rates of marriage and childbirth. As the Millennials start their delayed families, they will feel familiar pressures to leave the inner-city rental for a home purchase in the suburbs, to replace the Camry with a high capacity SUV and to find a job that supports the family and offers stability—even if it doesn't involve saving the world.

FERTILITY RATES SIGNAL A SCARY FUTURE

America, Europe and Japan are in the midst of a baby crisis. The number of women giving birth has been declining for years, and is hitting historic lows.

In the U.S. the general fertility rate is 62 births per 1,000 women ages 15 to 44.

In the European Union the population is estimated at 511.8 million, up from 510.3 million a year earlier. This increase is despite the same number of births and deaths, as immigrants contributed to an increase of almost 1.5 million people.

While the U.S. fertility rate remains relatively high compared with many other developed countries such as Germany, France and Italy, the U.S. also has more births than deaths. But the trend is not encouraging.

Countries in 2016 with the highest fertility rates are Niger (6.62), Burundi (6.04), Mali (5.95), and Somalia (5.89). The highest fertility rates exist in Africa. Lack of access to birth control and contraception in third world countries is a large contributor to high fertility rates. The global population is around 7 billion people and the African continent makes up around 1.1 billion people of the total global population.

In India, if the current fertility rate of 2.3 births per woman remains constant, its population would grow to 1.8 billion by 2050. Egypt is the most populous in the Arab world, with 93 million citizens and is set to grow to 128 million by 2030, if fertility rates of 4.0 births per 1,000 women continues. In Russia, total population is expected to steadily decline over the next five years in both the young adult and middle age groups. This will present new challenges for retailers across all sectors as the consumer market begins to shrink.

Some parts of the world are far below 2.1 and may see major population declines in the future, including China, Japan, Germany, Ukraine, and others.

<u>IMPLICATIONS FOR BUSINESS</u>: Fertility rates, whether high or low, impact economic growth, cultural stability, and the total group in any country business can market to. The question is at what point in time does this create problems and affect global business? If a population does not grow, the aging workforce cannot be replaced and there will not be enough tax revenue to keep the economy stable. Those nations could face economic cultural turmoil. In countries with high rates, there may not be adequate resources to provide for all the inhabitants.

CEO OFFICE EXPECTANCY DECREASING: ACTIVIST INVESTORS IS THE REASON

The time spans for CEOs to occupy the head office is getting shorter, especially at America's biggest companies. In the first five months of this year 13 companies with market valuations of more than \$40 billion hired new chief executive officers.

A major reason is that activist investors are intimidating companies into accepting their agendas for immediate financial benefits. In fact, through June 23, shareholder activists had launched nine campaigns targeting top management at U.S. companies, the fastest pace since 2014.

Who stands between a shareholder activist looking for short-term gains and the company and its constituencies? Only the board of directors.

It used to be that company directors were responsible for defending management and rejecting takeover offers that stood to benefit shareholders only.

Now, the test of a courageous director is based more on whether he/she will stand up to an activist investor whose interests are in short-term gains rather than long-term success.

In 2016, corporate boards settled 45 percent of proxy fights, often with activists being invited to join the companies' boards.

That was despite the fact that according to a 2015 study, activist funds beat the S&P 500 Index in only three of the previous eight years.

Why do corporate boards so often give in to shareholder activists? Part of the answer lies in the shorter term orientation of the stock market today. In the 1960s, investors held stocks an average of eight years. Today, the average holding period is eight months.

To be sure, there are legitimate business reasons for boards to dismiss CEOs. But the less admirable reason for boards' willingness to replace chief executives is that activists today will take whatever brutal steps they can to lock in short-term gains. That includes filing lawsuits against management and the board and starting a proxy fight to gain control.

Unfortunately, those tactics can get timorous directors thinking that it's best just let the activist have his way.

Stronger backbones are clearly required.

IMPLICATIONS FOR BUSINESS: The requirements for capable company directors have continued to advance. The need today is for independent, tough minded individuals who will make the difficult decisions.

CONTRASTING VIEWS ABOUT U.S. NEWS SOURCES

There has been much talk in both political parties about what constitutes real and fake news since the election of Donald Trump.

A large percentage of the population now sees the news media as a watchdog. Roughly nine in ten Democrats believe media critics keep administrative leaders honest. Only 42 percent of Republicans in comparison believe the same, according to recent polling by Pew Research.

Regardless of which camp you may fall into, there are differing views on the trustworthiness of news sources today and a variety of methods for accessing that news.

Surveys indicate that *The Economist* is the most trustworthy. Also scoring highly, were Reuters, NPR, *The Wall Street Journal*, Politico and the *Guardian*. Meanwhile, not viewed as very reliable are Breitbart, Yahoo and the Huffington Post. For people calling themselves moderates, trust of news outlets is correlated with age. For conservatives, trust in media is low and decreases with age.

A recent survey indicates 85 percent of adults now get news via mobile devices, up from 72 percent in 2016. Surprisingly, about 67 percent of adults aged 65 and older get news on a mobile device. Just two in ten U.S. adults get news from newspapers. Only 5% of 18-29 year olds get news from a print source. 18 percent of adults access news from social media. Television is still the most widely used platform. 57 percent access TV based news either from local TV, cable or network or a combination of the three.

News watchers seem to prefer TV, while readers prefer the Web.

IMPLICATIONS FOR BUSINESS: Businesses will be wise to approach consumers via advertising on media platforms that a majority of the general public regards highly and views on a regular basis.

DID YOU KNOW?

Bob Mankoff, the former cartoon editor of The New Yorker, drew more than 900 cartoons in his 20-year tenure with the magazine.

WHAT IS HAPPENING TO THE TRUTH?

We have entered an age when more and more "information" is being put out with no basis in fact. It is called "post-truth," a term that is thought to have been minted in a 1992 essay for *The Nation* on the aftermath of Watergate by the Serbian-American playwright Steve Tesich.

In 2016 the Oxford Dictionaries declared "post-truth" the Word of the Year, defining it as "relating to or denoting circumstances in which objective facts are less influential in shaping public opinion than appeals to emotion and personal belief."

Unfortunately, we are in a period where post-truth statements have enormous power in political and public discourse. Examples are legion. And when they get into social media, they can have huge repercussions with enormous audiences. Facebook, for example, has 1.2 billion daily users, compared with, say, CBS and ABC which each have 9 million viewers and *The Wall Street Journal* which reaches about 2.5 million readers.

This is ironic, since many top media organizations—including *The Washington Post*, *New York Times* and *Wall Street Journal*—have redoubled their effort on fact-checking.

That said, reporters at many media are free in most situations to no longer have two, or even one, source for their stories. Indeed, many publications have told writers to not hesitate to offer their opinion in the news stories they write.

<u>IMPLICATIONS FOR BUSINESS</u>: It is critical to be vigilant 24/7 and to be ready to immediately correct whatever misinformation affects your business or personal interests. Failure to do so could have long-term consequences.

THE FUTURE OF CABLE NEWS IS UNCERTAIN

Rarely has the future of the cable news business been as wide open as it is now. FOX in particular is going through major changes. It is no longer number one in the ratings. The loss of popular host Bill O'Reilly and the late Roger Ailes has taken its toll both in terms of ratings and network morale.

MSNBC, led by Rachel Maddow, is now number one in total audience in prime time, but CNN leads in the all-important 18-49 year old age group, the demographic that advertisers covet.

All three networks have significant challenges going forward.

Their audiences are older with few signs that they are gaining younger viewers, because social media outlets such as Facebook, Twitter and Google provide news feeds that are more appealing to them.

Then there is the potential for new competition. Breitbart and Sinclair are reportedly thinking about entering the field by positioning themselves to the right of FOX. There is also another conservative all-news cable network, One America News, although it has gained little traction against FOX.

Yet another threat to the cable business is the increasing number of "cord cutters"—consumers who are ending their relationship with their cable company.

<u>IMPLICATIONS FOR BUSINESS:</u> Despite the shifting landscape, FOX, MSNBC and CNN are not going away anytime soon. All three are highly profitable due to advertising revenue and fees from cable companies.

They still provide an excellent platform for businesses that want to get their message out to a well-educated, affluent audience that takes news seriously. This is also true of business format outlets such as CNBC and FOX Business Network.

DID YOU KNOW?

The average Snapchat user opens the app more than 18 times a day.

SKILLS-BASED TRAINING & HIRING: A BETTER WAY FORWARD

On the eve of the 2016 presidential election, the U.S. Department of Labor released a federally mandated, multi-year report, completed months earlier, describing the ineffectiveness of federal job training programs. The embarrassing results explain DOL's sly timing of the release on a day when Americans were riveted by election returns.

As reported in *The Hill*, "The study found that the programs are largely <u>ineffective</u> at raising participant's earnings and are offering services that don't meet the needs of job seekers or employers." When it comes to job training, the long history of ineptitude cannot be laid at the feet of any one administration.

While we all wait, eagerly, for well-paying manufacturing jobs to return, the economics of manufacturing in the U.S. are less than compelling. Even if there were trade measures that could level the playing field for U.S. manufacturers, the odds on a return of large-scale job growth and solid middle-class wages are long.

That is because rapid advances in technology and the growth of artificial intelligence continue to erode meaningful job growth. The sophistication of 24/7 advanced robotics and AI, along with no breaks, no vacations, no health care benefits and no labor unions, spell big problems for the unemployed and under-employed who are striving to realize the American Dream.

Exacerbating this problem are well-meaning advocates pushing to raise the minimum wage to levels unsupported by the value of the underlying skills offered by new entrants to the work force. Seattle, on its way to a \$15 an hour minimum wage, recently found its policy actually cut employees' hours and reduced average monthly earnings by \$125. For employers, the financial trade-off for higher wages is shorter hours and an even greater incentive to use robots and kiosks that take jobs away from low-skilled workers.

Private employers cannot and will not halt the march of technological change. The answer to future job growth rests with nurturing the skills and aptitudes the workforce needs to meet the demands of the new technology. It's time to try something different.

A number of prominent technology companies and nonprofit groups have started down this skills-based path, focusing not on four-year college grads, but on young people with the skills, aptitudes and determination to succeed in a workplace driven by technological change. As large-scale high-tech employers, this group has focused on would-be employees with demonstrable real-world skills acquired either formally or informally. These so-called new-collar or middle-skill jobs help employers hire employees with the aptitude to excel in a technology-rich environment.

The nation's labor policy should be to encourage governments at all levels to work with private sector companies in developing skills-based testing and training models that really work. IBM and Microsoft are two tech leaders that have moved in this direction to improve the quality and effectiveness of worker training programs and their own employee hiring pool. Several allied nonprofit organizations cited recently by *The New York Times* include Skillful, TechHire and Opportunity@Work.

<u>IMPLICATIONS FOR BUSINESS:</u> An enlightened, skills-based approach to hiring and training will benefit both employers and would-be employees. Employers get a better handle on the potential employee's skill-set and adaptability to training before making a hiring decision. The potential employee gets to demonstrate his or her real worth before an actual offer is made. This is not to say HR managers need to ignore college credentials, work history and personal references. But companies looking for the particular talents or skills needed to succeed in a technology-rich environment should focus first on those with a proven aptitude for the task at hand.

THE CHALLENGE OF THE WORKING CAREGIVER

The global aging crisis will change America like never before. It will affect public health, the workplace, finance and policymaking. The fastest growing segment of the population will be people 85 and older and according to Home Instead Senior Care—the largest senior-care organization in the world—40 percent of adults older than 65 will need help every day while 70 percent will need some assistance sooner or later.

At the same time, this demographic shift presents enormous challenges for family members, particularly those who are working and must attend to the needs of a parent or friend. Some estimates suggest that each year \$40 billion in productivity is lost because of the need to provide care or find services for an aging or sick relative or friend.

Generally, this responsibility falls to working women. They comprise approximately two-thirds of family caregivers and dedicate up to 30 hours a week to their responsibilities to parents as well as children.

Almost 20 percent of U.S. workers are providing senior care and will do so for about five years. This obligation can create internal conflicts. On one hand, they do not want to neglect their responsibilities as daughter or wife and on the other, their responsibilities to their jobs. Many feel victimized by their supervisors when work situations are created that conflict with the need to deal with caring for an aging or ill parent or spouse.

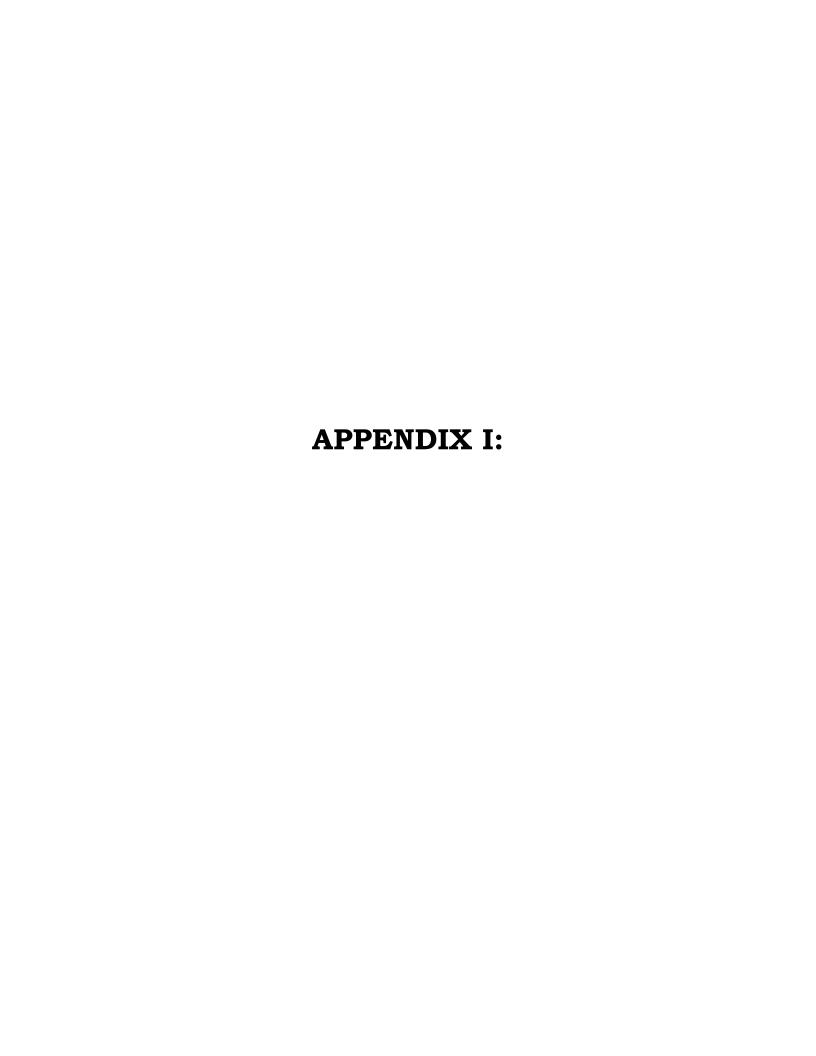
The challenges will continue to increase as the 76 million members of the Baby Boomer Generation enter their 70s. By mid-century, there will be 84 million seniors in America and most of them will need some form of assistance. This is a seismic shift in American demographics.

IMPLICATIONS FOR BUSINESS:

- 1. The demands on working caregivers will increase as more and more of the U.S. population enters the senior years.
- 2. Businesses should be sympathetic to employees, mostly women, who face the conflicting challenges of career and care-giving.
- 3. Employee assistance programs must develop a component that provides resources to help workers deal with caregiver responsibilities.
- 4. Flexible working hours should be explored to allow employees the time to deal with family care-giving issues.

DID YOU KNOW?

Since 2010, labor battles have led to at least 14 work stoppages—both strikes and lockouts—at American orchestras.



SERIOUS PREDICTIONS ON HOW OUR LIVES WILL CHANGE DRAMATICALLY IN 20 YEARS

The following is based on an article by Udo Gollub, a German futurist and CEO of 17 Minute Languages:

- Software will disrupt most traditional industries in the next 5-10 years.
- Uber is just a software tool, they don't own any cars and are now the biggest taxi company in the world.
- Airbnb is now the biggest hotel company in the world, although they don't own any properties.
- Artificial Intelligence: Computers become exponentially better in understanding the world. A computer beat the best Go player in the world, 10 years earlier than expected.
- In the U.S., young lawyers already don't get jobs. Because of IBM Watson, you can get legal advice (so far for more or less basic information) within seconds, with 90 percent accuracy compared with 70 percent accuracy when done by humans. So if you study law, stop immediately. There will be 90 percent less lawyers in the future, only specialists will remain.
- Watson already helps nurses diagnosing cancer, 4 times more accurate than human nurses. Facebook now has a pattern recognition software that can recognize faces better than humans. In 2030, computers will become more intelligent than humans.
- Autonomous cars: In 2018 the first self driving cars will appear for the public. Around 2020, the complete industry will start to be disrupted. You don't want to own a car anymore. You will call a car with your phone, it will show up at your location and drive you to your destination. You will not need to park it, you only pay for the driven distance and can be productive while driving. Our kids will never get a driver's license and will never own a car.

- It will change the cities, because we will need 90-95 percent less cars for that. We can transform former parking spaces into parks. 1.2 million people die each year in car accidents worldwide. We now have one accident every 60,000 miles (100,000 km), with autonomous driving that will drop to one accident in 6 million miles (10 million km). That will save a million lives each year
- Most car companies will probably become bankrupt. Traditional car companies try the evolutionary approach and just build a better car, while tech companies (Tesla, Apple, Google) will take the revolutionary approach and build a computer on wheels.
- Many engineers from Volkswagen and Audi are concerned about Tesla.
- Insurance companies will have massive trouble because without accidents, the insurance will become 100x cheaper. Their car insurance business model will disappear.
- Real estate will change. Because if you can work while you commute, people will move further away to live in a more beautiful neighborhood.
- Electric cars will become mainstream about 2020. Cities will be less noisy because all new cars will run on electricity. Electricity will become incredibly cheap and clean: Solar production has been on an exponential curve for 30 years, but you can now see the burgeoning impact.
- More solar energy has been installed worldwide than fossil. Energy companies are desperately trying to limit access to the grid to prevent competition from home solar installations, but that can't last. Technology will take care of that strategy.
- With cheap electricity comes cheap and abundant water. Desalination of salt water now only needs 2kWh per cubic meter (@ 0.25 cents). We don't have scarce water in most places, we only have scarce drinking water. Imagine what will be possible if anyone can have as much clean water as he wants, for nearly no cost.
- Health: The Tricorder X price will be announced this year. There are companies who will build a medical device (called the "Tricorder" from Star Trek) that works with your phone, which takes your retina scan, your blood sample and you breath into it. It then analyses 54 biomarkers that will identify nearly any disease. It will be cheap, so in a few years everyone on this planet will have access to world-class medical analysis, nearly for free. Goodbye, medical establishment.

- 3D printing: The price of the cheapest 3D printer came down from \$18,000 to \$400 within 10 years. In the same time, it became 100 times faster. All major shoe companies have already started 3D printing shoes.
- Some spare airplane parts are already 3D printed in remote airports. The space station now has a printer that eliminates the need for the large amount of spare parts they used to have in the past.
- At the end of this year, new smart phones will have 3D scanning possibilities. You can then 3D scan your feet and print your perfect shoe at home.
- In China, they already 3D printed and built a complete 6-story office building. By 2027, 10 percent of everything that's being produced will be 3D printed.
- Business opportunities: If you think of a niche you want to go in, ask yourself: "in the future, do you think we will have that?" and if the answer is yes, how can you make that happen sooner?
- If it doesn't work with your phone, forget the idea. And any idea designed for success in the 20th century is doomed to failure in the 21st century.
- Work: 70-80 percent of jobs will disappear in the next 20 years. There will be a lot of new jobs, but it is not clear if there will be enough new jobs in such a small time.
- Agriculture: There will be a \$100 agricultural robot in the future. Farmers in third world countries can then become managers of their field instead of working all day on their fields.
- Aeroponics will need much less water. The first Petri dish produced veal, is now available and will be cheaper than cow produced veal in 2018. Right now, 30 percent of all agricultural surfaces is used for cows. Imagine if we don't need that space anymore. There are several startups who will bring insect protein to the market shortly. It contains more protein than meat. It will be labeled as "alternative protein source" (because most people still reject the idea of eating insects.)
- There is an app called "moodies" which can already tell in which mood you're in. By 2020 there will be apps that can tell by your facial expressions, if you are lying. Imagine a political debate where it's being displayed when they're telling the truth and when they're not.

- Bitcoin may even become the default reserve currency ... Of the world!
- Longevity: Right now, the average life span increases by 3 months per year. Four years ago, the life span used to be 79 years, now it's 80 years. The increase itself is increasing and by 2036, there will be more than one year increase per year. So we all might live for a long, long time, probably way more than 100.
- Education: The cheapest smart phones are already at \$10 in Africa and Asia. By 2020, 70 percent of all humans will own a smart phone. That means, everyone has the same access to world class education.
- Every child can use Khan academy for everything a child needs to learn at school in First World countries. There have already been releases of software in Indonesia and soon there will be releases in Arabic, Suaheli and Chinese this summer. I can see enormous potential if we give the English app for free, so that children in Africa and everywhere else can become fluent in English and that could happen within half a year.

APPENDIX II:

CURRENT FORECASTS FOR KEY ECONOMIC AREAS AND THE EUROZONE



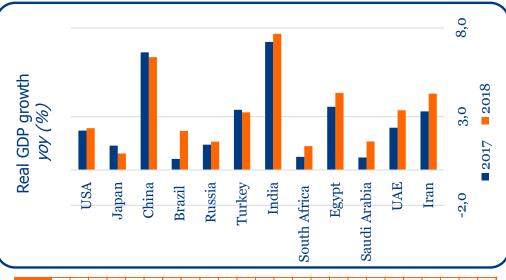
Forecast Table - Average (1/6)

Real GDP growth yoy (%)																			0,0 2,0		2017 2018
Re		EUROZONE	,	Italy	Cormany	Germany	France		Spain		2022.15	Ireland		Portugal	-	Foland	UK				
Consumer Prices	1.6	1.4	1.4	1.2	1.7	1.6	1.2	1.2	2.0	1,4	1.2	1.1	0.7	1.3	1,4	1.4	2.0	2.0	2.6	2.6	
Private consumption	1.5	1.5	6.0	8'0	1.3	1.5	1.3	1.6	2.4	2.1	1.5	1.5	2.4	2.6	2.1	1.4	4.2	3.3	2.2	1.3	
Investments	3.3	3.1	2.4	2.6	2.2	2.6	2.6	2.9	3.7	3.8	6.9	7.6	6.2	4.8	9:9	3.8	4.5	5.8	9.0	-0.2	
Unemployment	10.0	9.6	11.4	11.0	4.5	4.4	9.7	9.4	17.9	16.6	22.3	20.7	9.1	8.4	6.6	9.1	2.6	5.3	4.9	5.3	
GDP	1.9	1.7	1.1	1.0	1.8	1.7	1.5	1.6	2.9	2.3	1.4	2.4	3.8	3.2	2.3	1.8	3.6	3.3	1.6	1.2	
	2017	2018	2017	2018	2017	2018	2017	2018	2017	2018	2017	2018	2017	2018	2017	2018	2017	2018	2017	2018	
COUNTRIES		EUKOZONE	Thelic	Italy		Germany		ם פון	:	Spain		ם עם	T	דופוסוות		rormgal	7 100	Tolalia	mobouid botton		



Forecast Table - Average (2/6)

COUNTRIES		GDP	Unemployment	Investments	Private consumption	Consumer Prices	
¥U.	2017	2.2	4.5	3.9	2.5	2.2	
Aco	2018	2.4	4.3	4.4	2.5	2.2	
1 1 1	2017	1.4	2.9	2.2	6:0	9.0)
Japan	2018	6'0	2.8	1.4	6.0	6.0	Jap
: :	2017	9.9	3.6	9.9	7.5	2.0	
<u> </u>	2018	6.4	4.0	5.8	7.3	2.3	CP CP
	2017	9'0	12.7	1.3	-0.4	3.9	Rrs
DIAZII	2018	2.2	12.1	6.0	1.8	4.2	3 10
	2017	1.4	5.4	2.5	1.6	4.0	Rus
PISSIN	2018	1.6	5.4	2.8	2.5	4.0	
	2017	3.4	12.1	4.0	3.7	10.5	Tur
Inikey	2018	3.2	12.3	5.1	3.2	8.5	٤
Tadio	2017	7.2	3.4	3.1	8.3	3.9	
TILCIG	2018	7.7	3.4	6.1	8,4	4.7	South Afri
Courth Africa	2017	0.7	27.3	-0.2	0.8	5.7	
South Allica	2018	1.3	27.6	2.1	1.2	5.3	五 ஜ
44,60	2017	3.6	12.6	1	1	22.3	Could: And
Egypt	2018	4.3	11.8	-	1	18.9	Sauui Ai a
Callel Arabia	2017	0.7	-	-0.2	1.5	2.3	<u> </u>
Sauui Alabia	2018	1.6	1	2.0	1.8	4.2	
4	2017	2.4	1	1	1.9	2.4	
UAE	2018	3.4	1	-	0.7	3.8	
Trans	2017	3.3	12.5	-	1	11.2	
TI GII	2018	4.3	12.5	1	1	11.0	





Forecast Table - Average (3/6)

COUNTRIES		GDP	Unemployment	Investments	Private consumption	Consumer Prices	Re	Real GDP growth yoy (%)
Coch Vc.	2017	2.7	3.8	7.1	2.0	1.9	-	-
South Norea	2018	2.7	3.7	3.2	2.3	1.9	South Korea	
1	2017	2.6	7.9	7.8	1.9	25.3	•	
Argentina	2018	3.0	7.7	5.9	2.9	16.9	Argentina	
	2017	5.2	0'9	5.3	5.1	4.3	Indonesia	
TUDOUESIA	2018	5.3	5.7	5.9	5.3	4.1		
	2017	3.4	1.0	3.6	3.0	1.0	Thailand	
Inaliand	2018	3.4	1.1	3.4	2.9	1.7	Malayeia	
	2017	4.8	3.6	7.9	6.2	3.8	Manaysia	
Malaysia	2018	4.6	3.8	5.0	4.6	2.4	Philippines	
Dk:II:acino	2017	6.5	5.7	9.5	5.7	3.4		
calliddillia	2018	9.9	2'9	10.9	0'9	3.5	Singapore	
	2017	2.4	2.3	-1.6	1.2	6'0	Viet Nam	
singapore	2018	2.5	2.4	1.1	1.6	1.6		
Viot Now	2017	6.5	2.4	1	1	4.3	-2,0	3,0
VIELIVAIII	2018	6.5	2.4	1	1	5.4	_	2017
							_	



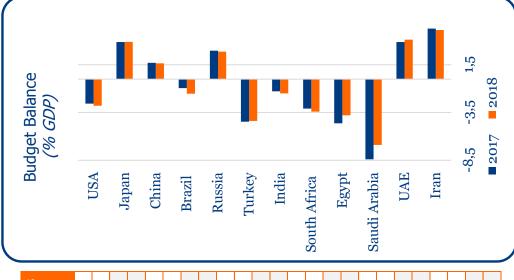
Forecast Table - Average (4/6)

COUNTRIES		Exports	Imports	Budget Balance (% of GDP)	Current Account Balance (% of GDP)	Government Gross Debt (% of GDP)	Budget Balance (% GDP)	
FIIDOZONE	2017	4.3	5.0	-1,3	3.1	89.5		
EUROZOINE	2018	3.9	4.0	-1.3	3.0	88.4	EUROZONE	
Ttoky	2017	3.6	4.8	-2.2	2.2	132.9	Italy	
Trail	2018	3.2	3.5	-2.0	2.1	132.2		
	2017	4.0	4.2	0.5	8.1	65.6	Germany	
Germany	2018	3.9	4.3	0.3	7.9	63.2	ţ	
, , ,	2017	2.9	4.0	-2.9	-1.5	2.96	France	
בומונע	2018	3.8	3.7	-2,9	-1.4	8'96	Spain	
	2017	5.5	5.3	-3,3	1.7	99.1	Time I	
Spalli	2018	3.9	4.2	-2.8	1.6	98.4	Greece	
	2017	4.8	3.7	-0.3	-0.1	178.5	-	
פופנים	2018	4.4	3.5	0.3	0.1	175.3	Ireland	
Laclos	2017	5.3	5.2	-1.1	4.9	100.7	Portugal	
	2018	4.6	4.6	-0.7	4.7	99.5		
100	2017	5.0	5.2	-1,8	0.5	128.2	Poland	
rolugai	2018	4.4	4.2	-1.7	0.5	126.3		
- CO	2017	7.4	7.8	-2.9	8'0-	54.2	United Kingdom	
rolaliu	2018	6.2	7.1	-2.9	-1,1	54.6		
Haitod Vinadom	2017	3.7	2.5	-3.1	-3.8	87.4	4,0 2,0 0,0	0,0
olited Alliguoiii	2018	2.9	1.0	7-2.7	-3.4	6'06	■2017 ■2018	



Forecast Table - Average (5/6)

COUNTRIES		Exports	Imports	Budget Balance (% of GDP)	Current Account Balance	Government Gross Debt	Budget (% (
	2017	2.7	4.0	-2.6	-3.8	99.7	
USA	2018	3.1	4.6	-2.8	-4.2	100.9	USA
1 1 1 1	2017	5.0	3.1	3.9	-4.5	237.0	.Ianan
Japan	2018	1.9	3.0	3.9	-4.1	237.6	mdno
11110	2017	6.8	9.1	1.7	-3.6	17.6	China
	2018	4.8	4.1	1.7	-3.6	19.1	
	2017	6.2	5.9	6'0-	-8.3	75.7	Brazil
Drazii	2018	6.4	7.8	-1.5	-7.1	77.4	ŕ
	2017	2.8	6.1	3.0	-2.5	14.2	Kussia
Kussia	2018	3.3	5.3	2.9	-1.8	14.2	Turkev
Tickery	2017	5.0	4.0	-4.5	-2.8	29.0	farmi
Idrkey	2018	3.6	5.2	-4,4	-2.2	28.7	India
Tadi	2017	6.2	6'9	-1,3	-4.2	61.8	
TICIO	2018	6.5	6.5	-1.5	-4.0	8.09	South Africa
Courth Africa	2017	0.8	0.4	-3.1	-3.3	53.1	- ! !
South Allica	2018	1.8	2.1	-3.4	-3.2	54.8	Egypt
1	2017	ı	1	-4.6	-11.3	94.0	Sandi Arabia
Egypt	2018	1	1	-3.8	-10.1	82.0	
Coundi Arabia	2017	-2.6	-4.0	-8.4	-1.7	16.4	UAE
Saudi Arabia	2018	0.7	1.0	6'9-	-1.5	25.1	
1145	2018	ı	1	3.9	-0.2	25.9	Iran
UAE	2018	1	1	4.1	2.4	27.1	- 6
Iran	2017	1	1	5.3	•	1	-8,5
	2018	ı	ı	5.1	,	1	■ 2017





Forecast Table - Average (6/6)

COUNTRIES		Exports	Imports	Budget Balance (% of GDP)	Current Account Balance (% of GDP)	Government Gross Debt (% of GDP)	Real GE	Real GDP growth yoy (%)
Court	2017	3.4	7.2	5.7	1.0	38.4	South Korea	
	2018	4.3	4.5	5.5	1.0	38.9		
	2017	1.1	7.3	-3.1	-6.0	53.9	Argentina	
Argenuna	2018	4.8	4.1	-3.2	-5.3	55.0	-	
	2017	6.2	4.7	-1,6	-2.4	30.1	Indonesia	
TUCOLLESIA	2018	4.1	5.6	-1.7	-2.2	30.6	Thailand	
Theiles	2017	3.8	5.6	9.7	6'0-	37.3		
	2018	2.8	3,4	8.9	-2.6	37.4	Malaysia	
dio.cl	2017	11.2	14.2	1.8	-3.1	49.2	Philinnines	
Malaysia	2018	5.3	5.6	1.9	-2.9	48.9	comddin r	_
Dhilinain	2017	15.9	12.1	0.0	-2.9	42.8	Singapore	
riiiippilles	2018	7.7	10.5	-0.5	-3.0	42.4	14.	
,	2017	4.1	4.2	19.8	-0.1	115.4	viet Nam	
Sillyapore	2018	2.6	2.3	19.0	0.2	116.6	O'U	0.0
Viot Nam	2017	-	1	1.9	-5.4	ı	0.50	
	2018	1	1	1.7	-5.0	1	102	7 2018



Forecast Table (1/16)

Indicator	Organization	丑	Italy	Germany	ny	France		Spain		Greece	Ire	Ireland	Port	Portugal	EUR	EUROZONE	Pok	Poland	United Kingdom	ingdom
		2017	2018	2017	2018 2	2017 20	2018 20	2017 2018	8 2017	7 2018	2017	2018	2017	2018	2017	2018	2017	2018	2017	2018
	African Development Bank							1	•											
	Asian Development Bank	1				1		1	•	1					1.8	1.7				
	Bank of America Merrill Lynch	1.1	1.1	1.8	1.6	1.4	1.5 3	3.1 2.4	1.0	2.1	3.8	3.3	5.6	2.0	1.9	1.6	3.5	3.2	1.5	1.2
	Bank of China	6.0	1.0	1.5	1.7	1.4	1.7 2	2.3 2.1	2.7	3.1					1.5	1.7			1.5	
	BNP Paribas	1.2	9.0	2.0	1.9	1.6 1	1.6 2	2.8 2.2	•	i			2.5	1.7	1.9	1.6	3.6	3.4	1.8	1.1
	Commerzbank	1.2	1.1	1.6	1.5	1.6 1	1.7 3	3.0 2.5	1.0	2.5	4.1	3.8	1.8	2.8	2.0	1.8			1.6	1.5
	Deutsche Bank	1.0	1.0	1.6	1.5	1.4	1.6 2	2.7 2.1	0.9	2.0	4.0	3.2	2.5	1.4	1.9	1.6	3.4	3.2	1.6	1.2
	European Central Bank	1.0	1.2	1.9	1.7	1.4	1.6 3	3.1 2.5	1.6	2.4	4.3	3.3	2.5	2.0	1.9	1.8	1			
GDP	European Commission	6.0	1.1	1.6	1.9	1.4	1.7 2	2.8 2.4	2.1	2.5	4.0	3.6	1.8	1.6	1.7	1.8	3.5	3.2	1.8	1.3
	HSBC Bank	1.2	1.0	1.8	1.9	1.4	1.5 3	3.0 2.3	•	1					1.9	1.6	4.0	3.6	1.6	1.4
	IMF	1.3	1.0	1.8	1.6	1.5 1	1.7 3	3.1 2.4	2.2	2.7	3.5	3.2	1.7	1.5	1.9	1.7	3.4	3.2	2.0	1.5
	Intesa Sanpaolo	1.1	1.1	2.0	1.8	1.6 1	1.6 2	2.8 2.3	•	1					2.0	1.7	1			
	Morgan Stanley	1.2	1.0	1.6	1.7	1.5 1	1.7 3	3.0 2.5	1.0	2.5	4.6	3.0	2.7	1.8	1.9	1.6	1		1.7	1.1
	OECD	1.0	8.0	2.0	2.0	1.3 1	1.5 2	2.8 2.4	1.1	2.5	3.7	2.5	2.1	1.6	1.8	1.8	3.6	3.1	1.6	1.0
	UBS Investment Bank	1.3	1.0	2.1	1.7	1.7 1	1.7 3	3.1 2.3	•	1	2.0	5.6	,		2.0	1.6	3.9	3.2	1.4	0.7
	UniCredit Group	1.3	1.0	1.8	1.8	1.6 1	1.3 3	3.1 2.4	9.0	1.5			2.5	1.8	2.1	1.6	3.6	3.8	1.5	8.0
	Average	1.1	1.0	1.8	1.7	1.5	1.6 2.	2.9 2.3	1.4	2.4	3.8	3.2	2.3	1.8	1.9	1.7	3.6	3.3	1.6	1.2
	African Development Bank	1				1		1	•	1						1				
	Asian Development Bank	1		1		1		1	•	1			,			1	,			
	Bank of America Merrill Lynch	1		1		1		1	•	1			,			1				
	Bank of China					1		1	•	1										
	BNP Paribas	11.4	10.9	6.1	6.3	9.7	9.4 19	19.1 18.8	•	1					9.4	9.1			2.0	5.4
	Commerzbank	1				1			•	1	•				•	•	•			
	Deutsche Bank	1				1		1	•	1	•				•	•	•			
1	European Central Bank	11.6	11.3	3.8	3.6	9.7	9.6	17.3 15.4	22.4	1 20.9	0.9	5.2	9.4	8.2	9.4	8.8				
Onempioyment Pate	European Commission	11.5	11.3	4.0	3.9			17.6 15.9	22.8	3 21.6	6.4	5.9	6.6	9.5	9.4	8.9	5.2	4.4	2.0	5.4
Nate.	HSBC Bank	11.2	10.7	2.7	5.5			17.5 15.7	•	1					9.5	8.7	4.7	4.4	4.9	5.2
	IMF	11.4	11.0	4.2	4.2	9.6	9.3 17	17.7 16.6	21.9	21.0	6.5	6.3	10.6	10.1	9.4	9.1	5.5	5.3	4.9	5.1
	Intesa Sanpaolo	11.2	10.7	5.8	2.7	9.4	9.0	18.3 18.3	•	1			,		9.1	8.7	1			
	Morgan Stanley	11.7	11.3	3.6	3.0	9.8	9.5 17	17.7 15.7	22.1	19.7	6.3	5.9	9.7	9.1	9.5	8.7	1		4.7	4.9
	OECD	11.5	11.2	3.8	3.7	9.7	9.6	17.5 16.0	22.2	20.1	6.9	6.2	9.7	8.9	15.0	14.4	5.2	2.0	4.8	5.3
	UBS Investment Bank	11.5	11.1	3.8	3.7	9.5	9.4 18	18.0 16.8	•	1	22.5	21.0			6.6	8.6	7.3	7.2	2.0	5.9
	UniCredit Group	1			1	1		1	•	1		ı			•	•				
	Average	11.4	11.0	4.5	4.4	9.7	9.4 17	17.9 16.6	; 22.3	3 20.7	9.1	8.4	6.6	9.1	10.0	9.6	5.6	5.3	4.9	5.3



Forecast Table (2/16)

Indicator	Organization	Ħ	Italy	Germany	any	Fran	9	Spain		Greece	Ø.	Ireland	-	Portugal	-	EUROZONE	ш	Poland		United Kingdom	mopbi
		2017	2018	2017	2018	2017	2018	2017	2018	2017	2018	2017	2018	2017	2018	2017 20	2018 21	2017	2018	2017	2018
	African Development Bank																				
	Asian Development Bank																				
	Bank of America Merrill Lynch																				
	Bank of China										,		,	,							
	BNP Paribas	6.0	1.3	2.2	2.2	2.5	2.7	2.5	3.8							2.1	2.4			-0.2	-0.1
	Commerzbank					,	,				,		,	,	,		,	,	,	,	
	Deutsche Bank																				
	European Central Bank					,	,				,	,	,	,	,		,	,	,	,	
Investments	European Commission	3.6	3.3	1.9	2.7	5.6	3.7	3.4	3.9	6.3	10.8	6.7	5.6	5.4	4.7	2.9	3.5	4.9	6.1	0.2	0.3
	HSBC Bank	2.2	3.0	2.9	2.8	2.4	2.3	4.9	4.5		,	,	,	,	,	5.5	2.9	5.1	8.1	0.5	9.4
	IMF	2.8	2.1	1.6	1.8	2.3	2.7	3.1	2.7		,					2.7	2.7			8.0	1.3
	Intesa Sanpaolo	2.3	2.5	2.0	3.4	3.0	2.3	3.0	2.8	1	,		,	,	,	4.6	4.2	,	,	,	
	Morgan Stanley	2.3	2.9	1.6	1.8	2.8	4.4	4.3	4.3	8.9	6.7			8.0	4.4	3.3	2.8			1.4	0.0
	OECD	3.4	3.2	2.8	3.0	2.3	2.8	3.9	4.9	7.7	5.3	8.5	3.7	6.5	2.3	3.4	3.3	3.3	4.7	1.2	-1.8
	UBS Investment Bank	1.8	2.2	2.8	2.7	2.9	5.6	4.2	3.4		,	3.5	2.0			2.2	2.7	4.7	4.1	0.2	-1.6
	UniCredit Group	1				,	1			1						1		,	,	,	,
	Average	2.4	2.6	2.2	5.6	2.6	2.9	3.7	3.8	6.9	2.6	6.2	4.8	9.9	3.8	3.3	3.1	4.5	5.8	9.0	-0.2
	African Development Bank	1				,	1			1						1		,	,	,	,
	Asian Development Bank	•									1		1								
	Bank of America Merrill Lynch					,							,	,						,	
	Bank of China												,	,						,	
	BNP Paribas	0.5	0.8	1.3	1.7	1.4	1.6	2.2	1.9		1		1	1		1.3	1.5			1.7	1.2
	Commerzbank									1										,	
	Deutsche Bank					,	,				,		,	,				,	,	,	
4	European Central Bank					,	,				,		,	,	,	1.7	1.5	,	,	,	
Consumption	European Commission	8.0	1.0	1.3	1.7	1.2	1.6	2.5	2.0	1.4	1.4	2.8	2.7	1.9	1.3	1.5	1.6	3.9	3.1	1.8	6.0
	HSBC Bank	1.1	1.1	1.2	1.4	1.2	1.7	2.3	2.0	1	,	,	,	,	,	1.5	1.5	4.9	3.7	1.8	6.0
	IMF	8.0	0.7	1.3	1.4	1.5	1.7	5.6	2.1	1	,		,	,	,	1.5	1.5	,	,	1.9	1.2
	Intesa Sanpaolo	6.0	9.0	1.4	1.5	1.2	1.4	2.3	2.2	1	,		,	,	,	1.6	1.5	,	,	,	
	Morgan Stanley	1.2	1.2	1.2	1.6	1.5	2.0	5.6	2.0	1.5	1.6	2.8	2.5	2.3	1.5	1.4	1.4	,	,	1.9	0.7
	OECD	0.7	0.4	1.3	1.4	1.2	1.4	2.3	1.9	1.7	1.5	5.6	2.7	2.0	1.5	1.4	1.4	3.9	3.0	4.8	3.7
	UBS Investment Bank	1.3	1.0	1.3	1.5	1.1	1.4	5.6	2.3	1		1.5	2.5			1.6	1.5	4.1	3.3	1.3	0.3
	UniCredit Group									1											
	Average	0.0	0.8	1.3	1.5	1.3	1.6	2.4	2.1	1.5	1.5	2.4	2.6	2.1	1.4	1.5	1.5	4.2	3.3	2.2	1.3



Forecast Table (3/16)

Indicator	Organization	Ita	Italy	Germany	ny	France		Spain		Greece		Ireland	Po	Portugal	3	EUROZONE	Po	Poland	United Kingdom	ingdom
		2017	2018	2017	2018	2017 2	2018 21	2017 20	2018 20	2017 2018	8 2017	7 2018	2017	2018	2017	2018	2017	2018	2017	2018
	African Development Bank										•				•					
	Asian Development Bank									1	•				•					
	Bank of America Merrill Lynch									1	•									
	Bank of China			1						1	•									
	BNP Paribas	2.4	2.4	4.2	4.6	3.4	3.9	3.5 2.	2.8	1	•	1	•	•	3.9	4.2			6.5	2.0
	Commerzbank			1			,			1	•	1	•	•	•	1				
	Deutsche Bank									1	•	1			•					
	European Central Bank									1	•	1			4.8	4.3				
Exports	European Commission	3.4	3.6	3.7	3.9	3.2	4.2	5.7 4.	4.8 3	3.8 4.2	3.9	4.3	4.4	4.2	3.8	4.1	7.7	9.9	3.4	3.0
	HSBC Bank	3.6	3.0	4.5	4.8	2.1	2.8	5.5 4.	4.0	1	•	1			4.6	3.7	8.2	9.7	5.6	5.6
	IMF	3.7	3.8	3.8	4.0	3.8	4.4	4.6 4.	4.2 3	3.6 4.4	4.1	4.3	2.0	4.4	•		7.0	0.9	3.2	1.1
	Intesa Sanpaolo	4.3	3.5	4.3	3.7	1.7	3.8	5.0 2.	2.7	1	•	,			4.1	3.8				
	Morgan Stanley			3.3	3.9					1	6.3	4.4			•					
	OECD	4.1	3.6	4.2	3.7	2.5	3.9	6.7 5.	5.0 7	7.1 4.5	6.3	4.0	5.5	4.5	•		7.8	6.3	1.9	5.6
	UBS Investment Bank	3.7	5.6	4.2	5.6	3.5	3.7	7.7 3.	3.6	1	0.9	0.9			4.7	3.1	6.2	4.6	4.4	2.9
	UniCredit Group	1		1				1		1	1	1	•	•	1	1				
	Average	3.6	3.2	4.0	3.9	2.9	3.8	5.5 3.	3.9 4	4.8 4.4	5.3	4.6	2.0	4.4	4.3	3.9	7.4	6.2	3.7	2.9
	African Development Bank			1						1	•	1			•	1				
	Asian Development Bank									1	•		1		•					
	Bank of America Merrill Lynch									1	•		1		•	•				
	Bank of China									1	•		1	•	•	•				
	BNP Paribas									1	•		1	•	1	1				
	Commerzbank			1			,	1	,	1	1	1	•	•	1	1				
	Deutsche Bank			1			,	1		1	1	1	•	•	1	1				
	European Central Bank			1						1	1	1	•	•	5.2	4.6				
Imports	European Commission	4.5	4.7	4.8	2.0	3.3	4.7	4.8 4.	4.4 3	3.0 3.8	4.1	4.6	5.2	4.5	4.2	4.6	8.5	7.4	2.0	1.2
	HSBC Bank	4.6	3.2	4.5	5.1	3.7	3.2	4.4 4.	4.2	1	1	1	1	•	6.1	3.7	8.8	0.6	3.3	1.3
	IMF	4.4	3.8	4.0	4.5	4.3		4.1 4.	4.1 2	2.9 3.1	5.1	4.7	5.1	4.3	•	1	7.8	7.0	2.0	0.0
	Intesa Sanpaolo	5.2	2.5	4.9	4.4	4.9	3.6	6.6	4.1	1	•	,	•	•	5.8	4.3				
	Morgan Stanley			3.7	4.6		,			1	4.2	3.8			•	1				
	OECD	4.7	3.9	4.1	3.9	4.4	4.2	5.5 4.	4.9 5	5.3 3.5	8.8	4.7	5.2	3.9	•	•	6.5	7.1	3.8	1.3
	UBS Investment Bank	5.5	2.7	3.7	2.7	3.6	2.4	6.6 3.	3.6	1	4.0	2.0	1	•	3.7	2.8	7.2	4.9	1.2	1.1
	UniCredit Group			1						1	•	1	•	•	•	1	•			
	Average	4.8	3.5	4.2	4.3	4.0	3.7	5.3 4.	4.2 3	3.7 3.5	5.7	4.6	5.2	4.2	5.0	4.0	7.8	7.1	2.5	1.0



Forecast Table (4/16)

Indicator	Organization	Italy	Ą	Germany	hus	France	es.	Spain		Greece		Ireland	Po	Portugal	3	EUROZONE	Po	Poland	United Kingdom	ingdom
		2017	2018	2017	2018	2017	2018	2017 20	2018 2	2017 2018	18 2017	17 2018	2017	2018	2017	7 2018	2017	2018	2017	2018
	African Development Bank									1	'	1		•	•	1				
	Asian Development Bank									1	'		•	•	•	1				
	Bank of America Merrill Lynch	1.3	8.0	1.6	1.3	1.2	1.0	1.9	1.1	1.0 1.0	0.7	7 1.1	1.6	1.1	1.4	1.0	1.8	2.0	5.6	2.1
	Bank of China	1						1		1		•	•	•	•	1		1		,
	BNP Paribas	1.6	1.2	1.8	1.7	1.3	1.0	2.1	1.6	1		1	1.5	1.1	1.6	1.4	2.4	1.9	2.1	1.9
	Commerzbank	1.1	6.0	1.7	1.6	6.0	6.0	1.8	1.5	1.1 1.0	9.0	5 1.3	1.3	1.5	2.0	2.2			2.8	2.8
	Deutsche Bank	1.4	1.3	1.6	1.6	1.3	1.3	2.0	1.8	1.1 1.0	0.2	2 1.3	1.2	1.5	1.6	1.5	1.9	2.1	2.7	2.8
	European Central Bank	1.4	1.1	1.5	1.4	1.2	1.2	2.1	1.3	1.2 1.1	1.4	1.0	1.6	1.4	1.5	1.3				
Consumer Prices	European Commission	1.5	1.3	1.7	1.4	1.4	1.3	2.0	1.4	1.2 1.1	9.0	5 1.2	1.4	1.5	1.6	1.3	1.8	2.1	5.6	5.6
	HSBC Bank	1.4	1.1	1.7	1.5	1.3	1.3	1.9	1.1	1			•	•	1.5	1.3	1.7	1.9	2.8	2.9
	IMF	1.3	1.3	2.0	1.7	1.4	1.2	2.4	1.4	1.3 1.4	t 0.9	9 1.5	1.2	1.4	1.7	1.5			2.5	5.6
	Intesa Sanpaolo	1.5	1.6	1.4	1.3	1.2	1.4	1.9	1.4	1	1	•	•	•	1.5	1.4		1		1
	Morgan Stanley	1.4	1.0	1.9	2.0	1.0	6.0	2.1	1.4	1.6 1.4	9.0 t	5 1.0	1.5	1.6	1.6	1.3			2.7	3.1
	OECD	1.5	1.3	1.9	1.6	1.3	1.2	2.3	1.4	1.4 0.8	3 0.8	3 2.0	1.6	1.4	1.7	1.4	2.3	1.8	2.8	2.7
	UBS Investment Bank	1.4	1.3	1.7	1.9	1.1	1.2	2.1	1.3	1	9.0	5 1.0	•	•	1.5	1.5	2.2	2.2	5.6	2.8
	UniCredit Group	1.4	1.2	1.7	1.5	6.0	1.1	1.9	1.6	6.0 6.0	-	1	1.3	1.2	1.6	1.6	1.9	1.9	5.9	2.7
	Average	1.4	1.2	1.7	1.6	1.2	1.2	2.0	1.4	1.2 1.1	1 0.7	7 1.3	1.4	1.4	1.6	1.4	2.0	2.0	2.6	2.6
	African Development Bank									1	1	1	•		•	1				
	Asian Development Bank			1			,	,		1	1	1		•	•	1				
	Bank of America Merrill Lynch			1			,	,	,	1	1	1		•	•	1				
	Bank of China			1			,	,		1	1	1		•	•	1				
	BNP Paribas	2.2	2.1	8.3	8.5	-0.9	-1.1	2.1	2.1	1	1	1	•	•	3.0	3.1	-1.3	-1.5	-4.1	-3.2
	Commerzbank			1						1		1	•	•	•	1	•			
	Deutsche Bank	2.7	2.3	8.0	7.8	9.0-	-0.5	1.9	1.8	1.0 1.0	10.0	0.8 0	0.7	0.7	3.1	2.9	-1.1	-1.2	-4.0	-4.0
Current Account	European Central Bank									1		1	•	•	2.8	2.8	•			
Balance	European Commission	1.9	1.7	8.0	9.7	-2.4	-2.5	1.6	1.6	-0.5 -0.3	3 4.8	3 5.0	0.5	0.5	3.0	2.9	9.0-	-1.2	-3.9	-3.2
(% of GDP)	HSBC Bank	2.1	1.8	8.2	7.9	-1.4	-1.4		0.3	1		1	•	•	3.1	2.8	-0.7	-0.9	-3.2	-3.1
	IMF	2.0	1.8	8.2	8.0	6.0-	-0.5	1.5	1.6	-0.3 0.0	4.7	7 4.7	-0.3	-0.4	3.0	3.0	-1.7	-1.8	-3.3	-2.9
	Intesa Sanpaolo	2.2	2.1	8.3	8.0	-2.4	-2.4	1.8	1.6	1	1	1	•	1	3.3	3.2				
	Morgan Stanley	2.2	2.8	8.1	8.0	-2.6	-2.3	2.2	2.1	1.4 1.0	1.3	3.9	1.0	1.0	2.9	2.9			-3.6	-3.2
	OECD	2.1	2.3	7.5	7.4	-1.2	-1.3	2.1	2.1	-1.9 -1.3	3 4.1	1 5.3	0.4	0.8	3.3	3.4	-0.2	-0.1	-3.9	-3.8
	UBS Investment Bank	2.0	1.7	8.2	8.1	-1.3	9.0-	1.3	1.4	1	1.8	3 1.4	•	1	3.0	2.8	0.3	-1.1	4.4	-3.9
	UniCredit Group									1	'	1	•	•	•	1				
	Average	2.2	2.1	8.1	2.9	-1.5	-1.4	1.7	7.6	-0.1 0.1	1 4.9	9 4.7	0.5	0.5	3.1	3.0	-0.8	-1.1	-3.8	-3.4



Forecast Table (5/16)

Indicator	Organization	Italy	Ą	Germany	any	France	a)	Spain		Greece		Ireland		Portugal		EUROZONE	ш	Poland	Ü	United Kingdom	шо
		2017	2018	2017	2018	2017	2018 2	2017 20	2018 2	2017 20	2018 20	2017 20.	2018 20	2017 20	2018 20	2017 20	2018 20	2017 2018	18 2017		2018
	African Development Bank																				
	Asian Development Bank									1				,						·	
	Bank of America Merrill Lynch									1									1		
	Bank of China															1			1		,
	BNP Paribas	-2.4	-2.5	0.7	9.0	-3.0	-2.7	-3.6	-3.0	1				_		-1.4 -1	-1.2 -2	-2.9 -2.7	7 -2.7		-3.1
	Commerzbank									1				_						·	
	Deutsche Bank	-2.3	-2.3	0.5	0.2	-3.1	-2.8	-3.3	-2.8	-1.3 0	0- 9:0	-0.7 -0.	-0.5	-1.8	-1.7	-1.4 -1	-1.3 -3	-3.0 -2.9	9 -2.9		-2.5
0 + 0 m P 1	European Central Bank									1				_		-1.3 -1	-1.2				
Budget Balance	European Commission	-2.0	-2.2	9.0	0.3	-2.3	-2.8	-3.4	-3.4	2.4 3.	3.1 -1	-1.1 -0.	-0.3	-2.2	-2.4	-1.1 -1	-1.3 -3	-3.2 -3.1	1 -3.4		-2.6
(400 10 04)	HSBC Bank	-2.1	-1.9	0.3	0.0	-3.0	-3.0	-3.4	-3.1	1						-1.4 -1	-1.4 -2	-2.9 -2.9	- 6		
	IMF					,		,								-1.1 -0	. 6.0-				
	Intesa Sanpaolo	-2.0	-1.9	0.5	0.3	-3.0	-3.2	-3.2	-2.8	1						-1.4 -1	-1.3				
	Morgan Stanley	-2.4	-2.1	9.4	0.0	-3.0	-2.9	-3.1	-2.4	-1.0 0.	0.0	-0.3 -0.	-0.9	-1.7 -:	-1.6	-1.2 -1	-1.4		-5	-2.9 -2	-2.3
	OECD	-2.1	-1.4	0.7	9.0	-3.0	-2.8	-3.1	-2.3	-0.2 -0	-0.2 -0	-0.5 -0.	-0.2 -1	-1.5	-1.0	-1.2 -0	-0.9	-2.9 -3.0	0 -3.1		-2.4
	UBS Investment Bank	-2.2	-1.4	0.5	0.3	-2.9	-2.9	-3.3	-2.6	1		-2.7 -1.	-1.7			-1.7 -1	-1.5 -2	-2.8 -2.6	62.9		-2.8
	UniCredit Group	-2.1	-1.9	0.0	0.0	-3.2	-3.0	-3.1	2.6	-1.6 -2	-2.2		7	-1.8	-1.9	-1.5 -1	-1.4 -2	-2.8 -2.9	9 -3.5		-3.5
	Average	-2.2	-2.0	0.5	0.3	-2.9	-2.9	-3.3	-2.8	-0.3 0.	0.3 -1	-1.1	1- 20-	-1.8	-1.7	-1.3 -1	-1.3 -2	-2.9 -2.9	9 -3.1		-2.7
	African Development Bank									1											
	Asian Development Bank													_				1	1		
	Bank of America Merrill Lynch													_				1	1		
	Bank of China	1				1	1									1					
	BNP Paribas	133.2	134.1	65.3	62.4	96.1	95.1	6.66	9.66					,	- 8	88.5 87	87.3 54	54.6 54.8	8 87.4		88.2
	Commerzbank	1					1			· -		-				1		1	•	_	
	Deutsche Bank											-						1	'		,
Government Gross	Government Gross European Central Bank									1					- 8	87.9 86	. 86.4	1	1		
Debt	European Commission	133.1	132.5	8.59	63.3	96.4	6.7	99.2	98.5	178.8 17	174.6 73	73.5 72	72.7	128.5 12	126.2 9	90.3 89	89.0 54	54.6 55.4	4 88.6	_	87.9
(% of GDP)	HSBC Bank	132.4	131.5	9.59	63.4	97.2	97.5	99.2	98.7	1					5	90.4 89	89.2 54	54.4 54.4	4 88.0		84.3
	IMF	132.8	131.6	64.7	62.0	97.4	97.4	98.5	97.9	180.7 18	181.5 74	74.8 73	73.4 128	128.6 12	127.1	90.1 88	88.6 54	54.6 54.1	1 89.0		88.7
	Intesa Sanpaolo	134.1	134.0	8.59	63.3	96.4	6.7	99.2	8.86	1	_			_	5	90.3 89	. 0.68	1			
	Morgan Stanley	132.5	130.5	65.7	63.5	0.76	97.2	6.86	97.3	177.6 17	170.0 71	71.5 70	70.4 12	127.3	124.8 8	88.0 87	87.2		82.8		86.1
	OECD	1				1	1	,		1						1			'		
	UBS Investment Bank	132.8	131.6	8.59	63.3	2.96	97.0	6.86	6.79	1	- 18	183.0 181	181.5		5	91.5	90.7 53	53.0 53.5	5 82.6		109.2
	UniCredit Group	132.5	131.9	66.3	64.4	96.5	6.7	99.3	98.8	177.0 17.	175.0		. 12	128.5 12	127.1 8	88.7 88	88.0 54	54.1 55.7			92.0
	Average	132.9	132.2	9:59	63.2	2.96	96.8	99.1	98.4	178.5 17.	175.3 10	100.7 99	99.5 12	128.2 12	126.3 8	89.5 88	88.4 54	54.2 54.6		87.4 90	6.06



Forecast Table (6/16)

Indicator	Organization	Italy	Ą	Germany	hny	France		Spain		Greece	Ire	Ireland	Portugal	ngal	EUROZONE	ZONE	Poland	P	United Kingdom	mopbu
		2017	2018	2017	2018	2017 20	2018 20	2017 20.	2018 2017	2018	2017	2018	2017	2018	2017	2018	2017	2018	2017	2018
	African Development Bank								1											
	Asian Development Bank									1	•									
	Bank of America Merrill Lynch							1	1	1									,	
	Bank of China									1	•	1								
	BNP Paribas	-2.4	-2.5	0.7	9.0	-3.0	-2.7 -3	-3.6	-3.0	•	•				-1.4	-1.2	-2.9	-2.7	-2.7	-3.1
	Commerzbank									1	•	1								
	Deutsche Bank	-2.3	-2.3	0.5	0.2	-3.1	-2.8 -3	-3.32	-2.8 -1.3	3 0.6	-0.7	-0.5	-1.8	-1.7	-1.4	-1.3	-3.0	-2.9	-2.9	-2.5
400000	European Central Bank					1			1	1		1			-1.3	-1.2				
budget balance	European Commission	-2.0	-2.2	9.0	0.3	-2.3	-2.8 -3	-3.4 -3.	-3.4 2.4	1 3.1	-1.1	-0.3	-2.2	-2.4	-1.1	-1.3	-3.2	-3.1	-3.4	-2.6
(400 10 %)	HSBC Bank	-2.1	-1.9	0.3	0.0	-3.0	-3.0 -3	-3.4 -3.1	. 1.	1	•				-1.4	-1.4	-2.9	-2.9	,	
	IMF					1	,			1		1			-1.1	-0.9			,	
	Intesa Sanpaolo	-2.0	-1.9	0.5	0.3	-3.0	-3.2 -3	-3.2 -2.	-2.8	1	•				-1.4	-1.3				
	Morgan Stanley	-2.4	-2.1	9.4	0.0	-3.0	-2.9 -3	-3.1 -2.4	.4 -1.0	0.0	-0.3	-0.9	-1.7	-1.6	-1.2	-1.4			-2.9	-2.3
	OECD	-2.1	-1.4	0.7	9.0	-3.0	-2.8 -3	-3.1 -2	-2.3 -0.2	2 -0.2	-0.5	-0.2	-1.5	-1.0	-1.2	-0.9	-2.9	-3.0	-3.1	-2.4
	UBS Investment Bank	-2.2	-1.4	0.5	0.3	-2.9	-2.9 -3	-3.3 -2	-2.6 -	1	-2.7	-1.7			-1.7	-1.5	-2.8	-2.6	-2.9	-2.8
	UniCredit Group	-2.1	-1.9	0.0	0.0	-3.2	-3.0 -3	-3.1 -2	-2.6 -1.6	6 -2.2		,	-1.8	-1.9	-1.5	-1.4	-2.8	-2.9	-3.5	-3.5
	Average	-2.2	-2.0	0.5	0.3	-2.9	-2.9 -3	-3.3 -2.	-2.8 -0.3	3 0.3	-1.1	-0.7	-1.8	-1.7	-1.3	-1.3	-2.9	-2.9	-3.1	-2.7
	African Development Bank					-			1	1										
	Asian Development Bank					-				1										
	Bank of America Merrill Lynch					-				1										
	Bank of China	1					1	1		1	•	1				,				
	BNP Paribas	133.2	134.1	65.3	62.4	96.1 9	95.1 99	66.66	- 9.66	•			,		88.5	87.3	54.6	54.8	87.4	88.2
	Commerzbank					1				1	•	ı							,	
	Deutsche Bank									1	•	ı	•						,	
Government Gros	Government Gross European Central Bank	1				1	1		1	1					87.9	86.4				
Debt	European Commission	133.1	132.5	8.59	63.3	96.4	96.7 99	99.2 98.5	5 178.8	.8 174.6	73.5	72.7	128.5	126.2	90.3	89.0	54.6	55.4	9.88	87.9
(% of GDP)	HSBC Bank	132.4	131.5	9.59	63.4	97.2	97.5	99.2 98.7	.7	1		1			90.4	89.2	54.4	54.4	88.0	84.3
	IMF	132.8	131.6	64.7	62.0	97.4	97.4	98.5 97.9	9 180.7	.7 181.5	74.8	73.4	128.6	127.1	90.1	9.88	54.6	54.1	89.0	88.7
	Intesa Sanpaolo	134.1	134.0	8.59	63.3	96.4	96.7 99	99.2 98.8	80	•	1				90.3	89.0			1	
	Morgan Stanley	132.5	130.5	65.7	63.5	97.0	97.2	98.9	97.3 177.6	.6 170.0	71.5	70.4	127.3	124.8	88.0	87.2			82.8	86.1
	OECD					1			1	1		1							,	
	UBS Investment Bank	132.8	131.6	8.59	63.3		95.0		- 6.79	•	183.0	181.5	,		91.5	2.06	53.0	53.5	82.6	109.2
	UniCredit Group	132.5	131.9	66.3	64.4	96.5	96.7	99.3 98	98.8 177.0	.0 175.0		1	128.5	127.1	88.7	88.0	54.1	55.7	90.4	92.0
	Average	132.9	132.2	9:59	63.2	96.7	96.8	99.1 98.4	178.5	.5 175.3	100.7	99.5	128.2	126.3	89.5	88.4	54.2	54.6	87.4	6.06



Forecast Table (7/16)

Indicator	Organization	5	USA	Лар	Japan	China	na	Brazil		Russia		Turkey		India	So	South Africa		Egypt	Sau	Saudi Arabia		UAE	=	Iran
	1	2017	2018	2017	2018	2017	2018	2017	2018	2017 20	2018 20	2017 2018	_	2017 2018	8 2017	7 2018	3 2017	7 2018	2017	2018	2017	2018	2017	2018
	African Development Bank														1.1	1.6	3.9	4.6	•	•	•		٠	
	Asian Development Bank	2.2	2.4	1.1	6.0	6.7	6.4						7.4	7.6		•	'	•	•	1				
	Bank of America Merrill Lynch	2.1	2.1	1.6	1.1	9.9	6.4	0.2	1.5	1.1	1.5 3	3.4 3.7	7 7.2	.2 8.0	0.8	3 1.5	3.1	4.0	0.0	6.0	•			
	Bank of China		ì			8.9	ı		,	1		1	Ė	1	1	1	1	1	•				•	
	BNP Paribas	2.2	2.7		í	6.5	6.4	1.0	3.0	1.8	1.4 3	3.5 3.2		7.3 7.8	-	•	3.8	4.5	•	•	•		ì	
	Commerzbank	2.3	2.3	1.3	1.0	6.5	6.3	0.7	2.0	1.3 2	2.0	1		7.0 7.4	'	•	•	•	٠	1	٠			í
	Deutsche Bank	2.4	5.6	1.2	0.7	6.7	6.3	0.7	2.4	1.6	2.0 3	3.4 3.7		7.0 7.8	9.0	1.7	3.5	4.1	1.6	1.6	2.7	2.7		
	European Central Bank												Ĺ			•	•							
GDP	European Commission	2.2	2.3	1.2	9.0	9.9	6.3	0.5	1.8	1.2	1.4 3	3.0 3.3	3 7.2	2 7.5		1	1	1	•	•	•	•	ì	
	HSBC Bank	2.3	2.4	1.3	9.0	6.7	6.7	1.2	2.4	1.5 2	2.0 3	3.0 2.5	5 6.8	.8 7.3	9 0.5	1.0	•	•	0.4	1.2				í
	IMF	2.3	2.5	1.2	9.0	9.9	6.2	0.2	1.7	1.4	1.4 2	2.5 3.3	3 7.2	2 7.7	0.8	3 1.6	3.5	4.5	0.4	1.3	1.5	4.4	3.3	4.3
	Intesa Sanpaolo	2.1	2.5	1.2	6.0	6.5	6.1					1	7.4	7.6		1	1	•	•				ì	
	Morgan Stanley	2.2	1.9	1.6	1.1	9.9	6.4	0.5	2.5	1.5	1.8 3	3.3 2.8	8 7.6	9.0	0.8	3 1.0	1	1	1.2	5.9	1		ì	
	OECD	2.1	2.4	1.4	1.0	9.9	6.4	0.7	1.6	1.4	1.6 3	3.4 3.5	5 7.3	3 7.7	0.8	3 1.2	•	•	•	1				í
	UBS Investment Bank	2.2	2.2	1.9	1.5	8.9	6.4	0.5	3.1	1.6	1.7 3	3.8 3.1	1 7.2	2 7.7	, 0.7	7 1.1	'	•	•		2.9	3.0		
	UniCredit Group	2.2	2.3	1.4	1.1	9.9	6.3	,		1.2 0	0.7	4.6 3.3	3	1	1	1	1	•	•	1				ı
	Average	2.2	2.4	1.4	6.0	9.9	6.4	9.0	2.2	1.4	1.6 3	3.4 3.2		7.2 7.7	7 0.7	7 1.3	3.6	4.3	0.7	1.6	2.4	3.4	3.3	4.3
	African Development Bank				,			,		,	,		Ĺ	1	<u>'</u>	'	'	•	•	1				ı
	Asian Development Bank									,	,	1		1	1	•	•	•	•	1				
	Bank of America Merrill Lynch							,		,	,	1		1	1	•	•	•	•	1				
	Bank of China														1	•	•	•	•	•	•			
	BNP Paribas	4.6	4.2									1		1	1	•	1	•		1				
	Commerzbank		ì		ì							1		1	1	1	1	•	•	1				
	Deutsche Bank		ì		ì							1		1	1	1	1	•	•	1				
	European Central Bank		ì		1					1		1		1	1	1	1	•	•	1		•	ì	
Unemployment	European Commission	4.6	4.5	3.1	3.0			,		5.7 5	5.6 13	13.6 14.1	. 1.	1	1	1	1	•	1	1		•	ì	
Nacc	HSBC Bank	4.4	4.0	2.9	5.9			13.1	12.3	5.4 5	5.3 12	12.0 12.8		1	27.0		1	•	1	1		•	ì	
	IMF	4.7	4.6	3.1	3.1	4.0	4.0	12.1	11.6	5.5 5	5.5 11	11.5 11.0	- 0:	1	27.4	4 27.7	12.6	5 11.8	•				12.5	12.5
	Intesa Sanpaolo	4.6	4.6	2.8	5.6	4.0	4.0						3.3	.3 3.3	1	1	1	•	•				ì	
	Morgan Stanley	4.2	4.1		5.6	2.4				5.4 5	5.5	1		1	1	1	1	•	•				ì	
	OECD	4.6	4.3	2.8	2.7				,	,	- 11	10.8 10.		1	1	1	1	1						
	UBS Investment Bank	4.4	4.1	2.7	2.5	4.1	4.1	12.9	12.4	5.1 5	5.0 12	12.7 12.7	.7 3.5	.5 3.5	5 27.5	5 28.0	1	•	1				ì	
	UniCredit Group		,		,		ı	1	,	,		1		1	1	1	1	1	•	1				ı
	Average	4.5	4.3	2.9	2.8	3.6	4.0	12.7	12.1	5.4 5	5.4 1.	12.1 12.3	3.4	3.4	1 27.3	3 27.6	12.6	5 11.8	•	1			12.5	12.5



Forecast Table (8/16)

Indicator	Organization		NSA	<u></u>	Japan	σ	China	Bra	Brazil	Russia	sia	Turkey	ey	India	e	South Africa	frica	Egypt		Saudi Arabia	abia	NAE		Iran	٥
	ı	2017	2018	2017	2018	2017	2018	2017	2018	2017	2018	2017	2018	2017	2018	2017	2018	2017 2	2018	2017	2018	2017	2018	2017	2018
	African Development Bank				•	,	,																	,	
	Asian Development Bank	1		•	1	1	í		,					,					,	,				ì	1
	Bank of America Merrill Lynch			٠	1				ì									,			,			ì	ľ
	Bank of China	1	٠	•	•	8.5																		ì	ľ
	BNP Paribas	3.7	2.8	•	1	•																		ì	
	Commerzbank																								1
	Deutsche Bank																								1
	European Central Bank																								1
Investments	European Commission	3.1	3.3	2.3	0.0					1.7	2.0	1.6	3.1												1
	HSBC Bank	4.9	3.8	2.1	4.0	8.9	9.5	7.5	8.0	3.0	4.0	9.0	1.1	0.7	3.3	-0.1	1.5			-0.2	2.0				1
	IMF	3.4	5.3	2.4	1.6				ì											,				,	1
	Intesa Sanpaolo	1		9.0-	1.4	4.8	4.3		,				,	1.4	6.2		,	,	,	,	,			,	1
	Morgan Stanley	1		•	•	4.8	4.2	9.0-	5.1	2.9	3.5	12.6	13.1	5.2	8.4				,	,				,	1
	OECD	3.9	4.2	2.1	1.5	•		-3.7	1.7	2.0	1.6	5.6	3.2	4.7	5.9	0.0	2.8		,	,				,	'
	UBS Investment Bank	4.6	4.0	4.8	3.7	2.8	5.5	2.0	9.0	3.0	3.0	2.5	5.0	3.6	6.5	-0.5	2.0		,	,				,	'
	UniCredit Group	1		•	•	1	,											,	,	,				,	1
	Average	3.9	4.4	2.2	1.4	9.9	5.8	1.3	0.9	2.5	2.8	4.0	5.1	3.1	6.1	-0.2	2.1	,		-0.2	2.0				•
	African Development Bank			٠	•	٠																			'
	Asian Development Bank	1		٠	•	٠																			'
	Bank of America Merrill Lynch	1		•	•	1	í																		1
	Bank of China	1			•																				1
	BNP Paribas	2.5	2.8	1	1	1	1		,	,			,	,	,		,	,	,	,	,			,	1
	Commerzbank	1	1	1	1	•	•		,	,			,	,	,		,	,	,	,	,			ì	1
	Deutsche Bank	1	1	1	1	1	1		ì	,	,	,	ì	,	,	,	,	,	,	,	ì	,		ì	1
	European Central Bank	1	•	•	•	1	1		,				,	,	,		,	1	,	,	,	,		,	1
Private	European Commission	2.4	2.8	9.0	9.0				,	1.1	1.6	3.0	3.3				,	,	,	,	,			,	
colledinipulon	HSBC Bank	2.5	2.5	0.7	9.0	7.4	7.4	-0.8	0.5	1.5	2.5	4.2	2.4	7.7	9.7	0.7	1.0	,	,	1.5	1.8	,		,	
	IMF	2.7	2.5	0.7	0.7				,				,	,			,	,	,	,	,			,	
	Intesa Sanpaolo	2.5	2.8	0.9	6.0	7.0	8.9		,				,	7.7	9.8		,	,	,	,	,			,	
	Morgan Stanley	2.0	2.3	1.1	1.1	7.8	7.6	-0.3	2.2	1.7	2.8	5.6	3.2	8.9	8.4		,	,	,	,		,		,	
	OECD	2.4	2.4	0.9	9.0			9.0-	1.5	1.2	2.7	4.8	3.7	7.7	8.2	8.0	1.5	,	,	,	,			í	
	UBS Investment Bank	2.7	2.2	1.6	1.6	7.7	7.3	0.2	3.0	5.6	3.0	4.0	3.5	9.5	0.6	8.0	1.0					1.9	0.7	,	1
	UniCredit Group	1	•	•	•	1	1											1	,	,				ì	1
		1																							



Forecast Table (9/16)

African Development Bank Asian Development Bank Asian Development Bank Asian Development Bank Bank of America Merrill Lyn Bank of China BNP Paribas Commerzbank Commerzbank Deutsche Bank European Central Bank European Central Bank IMF Intesa Sanpaolo Morgan Stanley OECD UBS Investment Bank UniCredit Group Average	Organization African Development Bank Asian Development Bank Asian Development Bank Asian Development Bank Asian Development Bank Bank of China Bank of China Bun Paribas Commerzbank Deutsche Bank European Central Bank European Central Bank European Commission TIME Intesa Sanpaolo Morgan Stanley ODECD UNICREGIT Group	2017 2017 2017 2017 2017 2019 2019 2019 2019 2019 2019 2019 2019	2018 2018 	2017 2 2017 2 2017 2 2017 2 2018 2.8 5.9	2018 	China 2017 2 2	2018	Brazil 2017 2	018	Russia 2017 2	810	Turkey 2017 20	2018 20	India 2017 2018	"	South Africa	2017	Egypt 2018	,	i Ar	7100	NAE -	3047	Iran 2018
	opment Bank ica Merrill Lynch it Merrill Lynch it k ik ik ik inmission olo ey ent Bank	2017	2018	2017	2018	6.3	2018	-		\vdash	\vdash		-	Н	H	H	H	H	H	ŀ	H	H	H	H
	opment Bank ica Merrill Lynch is Merrill Lynch is trail Bank innission olo ey ent Bank	2.4	3.0	2.8 2.8 5.9 5.6	1.1	6.3				,						_		_		7 2018	_	2018		
	ica Merrill Lynch ica Merrill Lynch ik ik ik iritat Bank innission olo ey ent Bank	3.0 2.9 2.3 2.5 2.5	3.0		11.1	6.3				_	,	,	,	<u> </u>	'	'	'	•	•	•	•			1
	ica Merrill Lynch k k ik irtral Bank mnission olo ey ent Bank	2.4	3.0		1.1	6.3		,	1			,		1	1	•	1	1	•	1	•			1
	k ik itral Bank nmission olo ey ey	2.4	3.0	2.8	1.1	6.3	,		,			,			1	•	1	1	1	1	•			1
	k k ik itral Bank nmission olo ey ent Bank	2.4	3.0	2.88 2.9	1.1	3.1			,			,		1	1	1	1	1	1	1	•		•	1
	k ik trail Bank mission olo ey ent Bank muten muten mission with the mission old ent mission ent mission ent mission ent mission ent mission mission mission ent ent ent ent ent ent ent ent ent en	3.0 2.9 2.3 2.5	3.5	2.8 5.9	1.1	3.1			,					1	1	1	1	•	1	1	•	1	1	1
	k titral Bank nmission olo ey ent Bank	2.9	3.5	2.8 5.9 5.9	1.1	3.1								1	1	•	1	1	•	1	•	٠	٠	1
	itral Bank nmission olo ey ent Bank	2.9	3.5	2.8 5.9 5.6	1.1	3.1								1	1	•	1	1	•	1	•		•	1
	nmission olo ey ent Bank	3.0 2.9 2.3 2.5 2.5	3.5	2.8 5.9 - 5.6	1.1	3.1									'		'	•		•				
HSBC Bank IMF Intess Sanpac Intess Sanpac Morgan Stanit OECD UBS Investme Unicredit Gro Average African Devel	olo ey ent Bank up	2.3	3.0	5.9	1.4	0	3.4			3.3	3.6	4.1	4.2		'	•	'	•	•	•				•
IMF Inteas Sanpac Morgan Stante OECD UBS Investme UniCredit Grod Average African Devel	olo ey ent Bank up	2.3		5.6		0.9	0.9	8.3	8.6	2.0	2.5 5	5.5	3.0 7.	7.0 8.4	4 0.6	5 2.0	'	•	-2.6	0.7	•		•	'
Intesa Sanpao Morgan Stanie OECD UBS Investme UniCredit Grou Average African Devel	olo ey ent Bank up	2.5		9.5					,	,	,	,	,	1	1	•	•	1	•	1	•			1
Morgan Stanle OECD UBS Investme Unicredit Gro Average African Devel	ey ent Bank up	2.5	2.2		1.6	9.1	4.2						- 6	9.3 4.5	10	•	'	1	•	1	•		•	'
OECD UBS Investme UniCredit Grod Average African Devel	ent Bank up		3.8			9.0	7.0			2.3	2.0 3	3.5	2.6 3.	3.1 6.9	-	•	1	•	•	1	٠			1
UBS Investme UniCredit Grou Average African Develo	ant Bank oup					,		ı	1			,		1	1	•	1	1	1	1	•			1
UniCredit Grot Average African Devel	dn	2.8	2.8	9.5	3.7	7.3	3.5	4.0	3.0	3.7	5.1 7	7.0 4	4.5 5.	5.3 6.2	1.0	1.5	1	•	1	1	•		1	1
Average African Develo					,				,	,				1	1	1	1	1	1	1	•		•	1
African Develo		2.7	3.1	2.0	1.9	8.9	4.8	6.2	6.4	2.8	3.3 5	5.0 3	3.6 6.	6.2 6.5	5 0.8	8 1.8		1	-2.6	0.7	•	•	•	•
	African Development Bank											,	<u> </u>	1	'	•		1	•	1			•	•
Asian Development Bank	oment Bank											,		1	1	•		1	•	1	•			1
Bank of Ameri	Bank of America Merrill Lynch				,				,	,	,	,	,	1	1	•	1	1	•	1	•			1
Bank of China	_					12.4			,	,	,	,	·	1	'	•	1	1	•	1	•			1
BNP Paribas					,	,			,			-		1	1	1	1	•	1	•	•	•	1	1
Commerzbank	¥													1	1	1	1	1	•	1	•	•	•	1
Deutsche Bank	ık													1	1	•	1	1	•	1	•	•	•	1
European Central Bank	rtral Bank	1						1	1					1	1	•	1	1	•	1	•	•	•	1
Imports European Commission	nmission	4.8	6.1	1.3	0.7	4.6	4.7		,	2.3	3.4 2	2.0	4.7	1	1	1	1	1	1	1	•		•	1
HSBC Bank		4.0	3.8	3.4	2.4	11.0	3.0	2.7	6.5	8.0	3.0 6	6.2	7.0 7.	7.0 9.5	5 1.3	3 2.6	1	•	-4.0	1.0	•		•	1
IMF				,					,					1	1	1	1	1	1	1	•		1	1
Intesa Sanpaolo	olo	4.3	4.4	3.1	2.3	9.5	4.5	1	1		,	,	-	11.9 4.3	-	•	1	1	•	1	•	•		1
Morgan Stanley	ey	5.6	5.3	,	,	9.5	4.5			2.0	7.2 2	2.2	3.5 2.	2.8 5.2		1	1	1	•	1	•	•	•	1
OECD		1				,		1	1	,	,	,			'	•	1	1	•	1	•	•	•	1
UBS Investment Bank	ent Bank	4.4	3.4	4.5	6.7	7.7	3.7	0.9	0.6	7.2	7.7 5	5.5	5.5 6.	6.0 7.0	0.5	5 1.5	1	•	1	•	•	•	1	1
UniCredit Group	dn	1						ı	1					1	1	•	1	1	•	1	•	•	•	1
Average		4.0	4.6	3.1	3.0	9.1	4.1	5.9	7.8	6.1	5.3 4	4.0 5	5.2 6.	6.9 6.5	5 0.4	1 2.1		•	-4.0	1.0	•	•	•	•



Forecast Table (10/16)

Indicator	Organization	5	USA	Ja	Japan	ch	China	Brazil	_	Russia		Turkey		India		South Africa		Egypt	Sa	Saudi Arabia		UAE	_	Iran
		2017	2018	2017	2018	2017	2018	2017	2018 2	2017	2018 2	2017 20	2018 20	2017 20	2018 20	2017 20.	2018 20	2017 2018	18 2017	7 2018	8 2017	7 2018	8 2017	2018
	African Development Bank														9 -	6.1 5.	5.6 16	16.9 12.9	- 6		'			
	Asian Development Bank	1	,		1	2.0	2.1	1	,	,			- 4	4.0 4	4.6			1	1	1	1	1	1	1
	Bank of America Merrill Lynch	2.0	1.7	0.5	6.0	1.9	2.2	3.4	3.5	3.9	3.8	10.7	8.1 3	3.8 5	5.5 5.	5.6 4.	4.8 18	18.9 22.8	8 3.5	5.5	1	_	1	1
	Bank of China	1	ì		1	1.4		1	,	,								1	1	1	1	1	1	1
	BNP Paribas	2.4	5.6		•	2.7	2.5	4.1	4.3	4.9	4.5	10.8	8.6 5	5.2 5	5.3		- 23	23.7 24.8	- 8	•			•	•
	Commerzbank	2.0	2.2	0.5	0.7	1.6	2.2	3.7	4.5	3.9	4.5		. 7	2.7 3	3.8			1	•	•			•	•
	Deutsche Bank	2.3	2.1	6.0	0.5	1.7	2.7	3.8	4.2	4.1	4.3	10.6	8.5 3	3.6 4	4.8 5.	5.2 4.	4.9 29	29.9 16.9	9 4.0	0.4	3.3	3.3		
	European Central Bank	,				,		1	,	,	,	,	,	,		Ĺ		1	1	1	'		•	•
Consumer Prices	s European Commission	2.2	2.3	9.0	1.0					4.4	4.0	11.1	8.6						'	'	'	'	•	•
	HSBC Bank	2.0	1.9	6.0	1.1	2.3	2.1	3.9	3.9	1.5	2.5	10.3	8.9 3	3.6 4	4.3 5.	5.3 5.5	2	1	0.1	1 2.4	1	1	•	•
	IMF	2.7	2.4	1.0	9.0	2.4	2.3	4.4	4.3	4.5	4.2 1	10.1	9.1 4	4.8 5	5.1 6.	6.2 5.5		22.0 16.9	9 3.8	3 5.1	2.8	3 3.7	, 11.2	11.0
	Intesa Sanpaolo	2.3	2.1	1.0	1.2	2.0	2.4						- 3	3.2 5	2.0	1		1	1	1	1	1	1	1
	Morgan Stanley	1.8	2.0	9.0	1.2	2.3	2.2	3.7	4.4	4.1	4.3	10.3	8.2 3	3.8 4	4.6 5.	5.5 5.	5.3	1	0.2	3.9	1	1	1	1
	OECD	2.5	2.2	9.0	1.0	1.5	2.0	4.2	4.5	4.2	4.0	10.4	8.1 4	4.8 4	4.6 6.	6.0 5.	5.8	1	1	1	1	1	1	1
	UBS Investment Bank	2.2	2.2	9.0	1.3	1.6	2.0	3.7	3.9	4.1	4.1 1	10.4	8.1 3	3.5 4	4.0 5.	5.4 5.	5.3	1	1	1	1.2	4.4	-	
	UniCredit Group	2.1	2.4	9.0	6.0	2.2	2.3		,	4.0	3.9	10.8	9.3					1	1	1	1	_	1	1
	Average	2.2	2.2	9.0	6.0	2.0	2.3	3.9	4.2	4.0	4.0	10.5 8	8.5 3	3.9 4	4.7 5.	5.7 5.3		22.3 18.9	9 2.3	3 4.2	2.4	3.8	3 11.2	11.0
	African Development Bank									,				,	٠.	-3.7 -3.7		-5.2 -5.0		'	'	'	•	
	Asian Development Bank	,			•	3.1	3.1		,	,		,	7	-1.3 -1	-1.5	<u> </u>		1	•	•	'	'	•	•
	Bank of America Merrill Lynch	1			•	,		1	,	,		,	,	,		<u> </u>		1	•	1	1	1	•	•
	Bank of China	1	,		1	,		1	,	,								1	1	1	1	1	1	1
	BNP Paribas	-2.4	-2.6	•	1	1.6	1.4	-1.4	-2.1	3.4	3.2	-3.5	-3.3 -0	-0.8	-1.7		2	-2.9 -2.5		1	1	1	1	1
	Commerzbank	1		•	•	1		1										1	•	•	•		•	•
	Deutsche Bank	-2.9	-3.2	3.9	4.0	1.3	1.1	-0.8	-1.7	2.9	3.3	-4.5	-4.8 -1	-1.1 -1	-1.5 -2	-2.6 -2.	-2.8 -5	-5.1 -3.8	8 -6.8	8 -6.8	3.5	3.5		•
Current Account	t European Central Bank	•		•	•	,												1	•	•	•		•	•
Balance	European Commission	-2.8	-3.3	4.1	4.2	1.9	1.6			3.6	3.7	4.4	4.3	,				1	1	1		1	1	
(% of GDP)	HSBC Bank	-2.5	-2.6	3.6	3.2	1.6	1.6	6.0-	-1.4	2.3	2.4	-5.0	-4.6 -1	-1.0 -1	-1.3 -3	-3.3 -4.2		1	0.3	3 0.7		1	•	
	IMF	-2.7	-3.3	4.2	4.3	1.3	1.2	-1.3	-1.7	3.3	3.5	-4.7	-4.6 -1	-1.5 -1	-1.5 -3	-3.4 -3.	-3.6 -5	-5.3 -3.9	9 1.5	5 2.0	3.5	3.9	5.3	5.1
	Intesa Sanpaolo	-2.6	-2.7	4.3	4.3	1.7	1.6	1	,	,	,	,	17	-2.4 -1	-1.9			1	1	1	•	1	•	•
	Morgan Stanley	1	,			2.1	2.4	-1.1	-2.1	2.3	1.8	-4.4	-4.2		1		1	1	1	1	1	1	1	1
	OECD	-2.4	-2.8	3.7	4.1	1.5	1.6	-0.2	-0.1	4.0	3.7	-4.8	-4.6 -0	-0.9	-1.2 -2	-2.7 -3.	-3.0	1	1	1	1	1	1	1
	UBS Investment Bank	-2.3	-1.9	3.4	3.2	1.0	6.0	6.0-	-1.6	2.0	1.5	-4.4	-4.7 -1	-1.2 -1	-1.4 -2	-2.9 -3.2		1	1	1	4.6	5 5.0	-	•
	UniCredit Group																		•	•			•	
	Average	-2.6	-2.8	3.9	3.9	1.7	1.7	-0.9	-1.5	3.0	2.9	-4.5	-4.4	-1.3 -1	-1.5 -3	-3.1 -3.	-3.4 -4	-4.6 -3.8	8 -1.7	7 -1.4	3.9	9 4.1	5.3	5.1



Forecast Table (11/16)

Commission Com																									
Mathematic National Part Mathematic National	Indicator	Organization	-5	ISA	Ла	ban	с.	ina	Braz	_	Russia		Turkey		India	So	uth Africa		Egypt	Sau	Saudi Arabia		UAE	_	Iran
http: 1			2017	2018	2017	2018	2017	2018	2017		Ľ	_	L.	_	ļ.	_	⊢	H	H	L.	2018	2017	2018	2017	2018
kk 1 2		African Development Bank														,									
Hyperth 4.2 5.0 6.0 7.0		Asian Development Bank						,	,		,	,	,	,	<u>'</u>	,	1	1	•	•		•			
1. 1. 1. 1. 1. 1. 1. 1.		Bank of America Merrill Lynch	•	•								,		,	<u>'</u>	'	'	'	•	•	•	•			
42 5 50 5 5 5 6 5 7 5 7 5 7 5 7 5 7 5 7 5 7 5 7		Bank of China	1						1			,	,	,		,	•	1	1	•		•			
1. 1. 1. 1. 1. 1. 1. 1.		BNP Paribas	-4.2	-5.0			-3.5	-3.3	9.6-	-8.3							•	-11.			٠	٠			
1, 1, 1, 1, 1, 1, 1, 1, 1, 1, 1, 1, 1,		Commerzbank															•		•	•					
1. 1. 1. 1. 1. 1. 1. 1.		Deutsche Bank	-2.9	-2.9	-3.4	-3.0	-4.0	4.0	-8.2	-7.8										1					
47 47 45 42 42 42 43 44 45 45 45 46 45 47 47 47 47 41 41 41 41 41 41 41 41 41 41 41 41 41																		1		•		٠			
3.1 3.6 4.5	budget balance		-4.7	-5.2	4.2	-3.6												'							
1. 1. 1. 1. 1. 1. 1. 1.		HSBC Bank	-3.1	-3.6	4.5	-4.5	-3.0	-3.5	-7.2	-3.9										-8.4	-6.9				
1.50 4.8 6.0 6.6 6.5 4.9 4.8 7.9 7.1 7.1 7.2		IMF													<u>'</u>			'							
3.1 4.5 3.9 3.9 3.8 3.8 3.8 3.8 7.9 7.2 2.0 1.4 2.4 6.1 5.7 6.1 6.5 6.4 6.4 6.1 6.5 6.4 6.1 6.5 6.4 6.1 6.5 6.4 6.1 6.5 6.4 6.1 6.5 6.4 6.1 6.5 6.4 6.1 6.5 6.5 6.4 6.1 6.5 6.5 6.5 6.4 6.1 6.5		Intesa Sanpaolo	-5.0	4.8	-6.0	-5.6	-4.9	4.8										'		•	•				
4.7 5.5 5.0 4.4 2.1 2.2 8.0 8.0 3.3 2.7 6.8 6.0 8.3 3 2.7 6.4 6.5 6.4 3.3 3.0 8.0 8.0 8.2 8.0 8.0 8.3 8.0 8.0 8.0 8.0 8.0 8.0 8.0 8.0 8.0 8.0		Morgan Stanley	-3.1	4.5	-3.9	-3.9	-3.8	-3.8	-7.9	-7.2							'	'	•	•	•				
1.29 3.1 4.0 3.1 1.38 4.0 8.5 7.5 1.8 0.8 3.0 2.0 3.2 3.2 3.9 3.9 3.9 3.0 3.0 3.4 3.3 3 5 5 5 5 1.8 3.8 3.0 3.0 3.2 3.2 3.2 3.2 3.2 3.2 3.2 3.2 3.2 3.2		OECD	-4.7	-5.2	-5.0	4.4	-2.1	-2.2	-8.2	-8.0		-2.7		,					•	•	•	•			
Hick 3.8 5.0 4.8 4.3 5 .35 -3.5 7.1 5.4 5.4 3.8 3.6 3.6 7. 7. 6.4 3.8 4.2 4.2 4.2 4.2 4.2 4.2 4.2 4.2 4.2 4.2		UBS Investment Bank	-2.9	-3.1	4.0	-3.1	-3.8	4.0	-8.5	-7.5									•	•	•	-0.2	2.4	٠	٠
Mark 1.5		UniCredit Group	-4.0	-3.8	-5.0	4.8	-3.5	-3.5						3.6	<u>'</u>	,	•	1	•	•		1		٠	٠
Ink <th></th> <th>Average</th> <th>-3.8</th> <th>-4.2</th> <th>-4.5</th> <th>-4.1</th> <th>-3.6</th> <th>-3.6</th> <th>-8.3</th> <th>-7.1</th> <th></th> <th></th> <th></th> <th></th> <th></th> <th></th> <th></th> <th>_</th> <th></th> <th></th> <th>-6.9</th> <th>-0.2</th> <th>2.4</th> <th></th> <th></th>		Average	-3.8	-4.2	-4.5	-4.1	-3.6	-3.6	-8.3	-7.1								_			-6.9	-0.2	2.4		
Lynch		African Development Bank			,	,		,	,			,	,	,	<u>'</u>	'	•	'	•	•		,			
Lynch </th <th></th> <th>Asian Development Bank</th> <th>•</th> <th>•</th> <th></th> <th></th> <th></th> <th></th> <th></th> <th></th> <th></th> <th>,</th> <th></th> <th>,</th> <th><u>'</u></th> <th></th> <th>'</th> <th></th> <th>•</th> <th>•</th> <th>•</th> <th>•</th> <th></th> <th>•</th> <th>•</th>		Asian Development Bank	•	•								,		,	<u>'</u>		'		•	•	•	•		•	•
1. 1. 1. 1. 1. 1. 1. 1.		Bank of America Merrill Lynch			,			,	,		,	,	,				1	1	•	•	•	•		•	•
72.7 74.9 - 18.6 20.8 78.7 15.6 15.6 15.2 28.8 28.8 47.0 45.9 - 94.0 82.0 10.0 1.0 -		Bank of China	1	1	,				1			,					•	1		1		•		1	1
10.78 108.7 239.4 240.5		BNP Paribas	72.7	74.9		ì	18.6	20.8	78.7	80.3								94.			•	1	•	1	1
106.7 107.8 108.7 29.4 240.5		Commerzbank	1	1	ì				,			,						1	1	1	•	1	1	1	1
1078 108.7 234.3 235.4		Deutsche Bank																		•					
European Commission 107.8 108.7 29.4 240.5 - - 16.2 16.2 16.5 26.5 24.9 - <th< th=""><th>Government Gros</th><th>ss European Central Bank</th><th>•</th><th></th><th></th><th>•</th><th></th><th></th><th>ı</th><th></th><th></th><th></th><th></th><th></th><th></th><th></th><th></th><th>•</th><th></th><th>•</th><th>•</th><th>•</th><th>•</th><th>•</th><th>•</th></th<>	Government Gros	ss European Central Bank	•			•			ı									•		•	•	•	•	•	•
HSBC Bank 106.7 107.8 124.3 125.4 - 1 72.9 71.3 14.1 14.5 129.1 30.0 66.0 66.0 53.2 55.0 - 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1	Debt	European Commission	107.8	108.7	239.4	240.5												1		1	1	1	1	1	1
Sampado 127.4 127.2 223.1 224.9 23.0	(% of GDP)	HSBC Bank	106.7	107.8	234.3	235.4			72.9	71.3									•	16.4	25.1	•	•	•	•
Sampadolo 1274 1272 223.1 224.9 -		IMF	•	•							,	,	,			1	1	1	•	1	•	•	•	•	•
n Stanley 107.0 110.0 238.0 237.0 75.0 75.0 12.0 12.0 31.4 31.8 67.0 65.0 <th></th> <th>Intesa Sanpaolo</th> <th>127.4</th> <th>127.2</th> <th>223.1</th> <th>224.9</th> <th></th> <th>,</th> <th>,</th> <th></th> <th>,</th> <th>,</th> <th>,</th> <th>,</th> <th></th> <th></th> <th>1</th> <th>1</th> <th>•</th> <th>•</th> <th></th> <th>•</th> <th></th> <th></th> <th>•</th>		Intesa Sanpaolo	127.4	127.2	223.1	224.9		,	,		,	,	,	,			1	1	•	•		•			•
vvestment Bank 76.9 77.0 250.0 250.0 16.5 17.4 76.2 80.0 12.9 12.7 29.0 67.4 66.3 53.0 54.5 9 digft Group 0.0 1.0 1.2		Morgan Stanley	107.0	110.0	238.0	237.0			75.0	78.0							1	1	•	1		1			
769 77.0 250.0 250.0 16.5 17.4 76.2 80.0 12.9 12.7 29.0 28.0 67.4 66.3 53.0 54.5		OECD	1		ì				1					,		1	•	1	1	•		•		1	1
997 1009 2370 2376 126 191 757 774 142 290 287 618 608 531 548 940 820		UBS Investment Bank	76.9	77.0	250.0	250.0	16.5	17.4	76.2	80.0									•	1	1	25.9	27.1	1	1
997 1009 2320 2376 176 191 757 774 142 290 287 618 608 531 548 940 820		UniCredit Group	1		ì				1					,		1	•	1	1	1		•		1	1
010 010 010 010 010 010 010 010		Average	7.66	100.9	237.0	237.6	17.6	19.1	75.7	77.4	14.2	14.2 2							0 82.0	16.4	25.1	25.9	27.1		



Forecast Table (12/16)

Indicator	Organization	South	South Korea	Argentina	tina	Indonesia	esia	Thailand	and	Mala	Malaysia	Philippines	oines	Singapore	pore	Viet Nam	Nam
		2017	2018	2017	2018	2017	2018	2017	2018	2017	2018	2017	2018	2017	2018	2017	2018
	African Development Bank										,			,			,
	Asian Development Bank	2.7	2.7			5.1	5.3	3.5	3.6	4.7	4.6	6.5	6.7	2.4	2.5	6.5	6.7
	Bank of America Merrill Lynch	2.9	3.0	2.8	2.8	5.3	9.9	3.4	3.2	4.9	4.5	6.3	5.9	2.1	2.3		
	Bank of China			,													1
	BNP Paribas			3.0	3.5	ì						8.9	8.9				
	Commerzbank																1
	Deutsche Bank	2.8	5.6	2.4	2.8	5.2	2.0	4.0	4.0	4.8	4.7	6.2	6.5	2.5	3.0	6.4	6.5
	European Central Bank																
GDP	European Commission	2.5	5.6			5.0	5.1										
	HSBC Bank	2.7	2.4	2.5	2.8	5.3	5.3	3.2	3.0	4.6	4.3	6.5	6.5	2.5	1.9		
	IMF	2.7	2.8	2.2	2.3	5.1	5.3	3.0	3.3	4.5	4.7	8.9	6.9	2.2	5.6	6.5	6.3
	Intesa Sanpaolo																1
	Morgan Stanley	2.8	5.6	2.8	3.3	5.2	5.4	3.3	3.5	2.0	2.0	6.5	9.9	2.7	2.9		
	OECD	5.6	2.8	2.5	3.1	5.1	5.2										
	UBS Investment Bank	2.9	2.8	2.8	3.1	5.2	5.4	3.4	3.2	2.0	4.6	0.9	6.5	2.3	2.0		
	UniCredit Group																
	Average	2.7	2.7	5.6	3.0	5.2	5.3	3.4	3.4	4.8	4.6	6.5	9.9	2.4	2.5	6.5	6.5
	African Development Bank																
	Asian Development Bank																
	Bank of America Merrill Lynch																1
	Bank of China																
	BNP Paribas									ì							
	Commerzbank			,		,								,			
	Deutsche Bank																
	European Central Bank			,						,							1
	European Commission																
Nate	HSBC Bank	4.0	4.0	7.7	7.5	5.9	5.1	0.7	6.0	3.8	4.2	2.7	5.9	2.5	5.6		
	IMF	3.8	3.6	7.4	7.3	5.4	5.2	0.7	0.7	3.4	3.2	0.9	5.5	2.1	2.1	2.4	2.4
	Intesa Sanpaolo			,													
	Morgan Stanley																
	0ECD	3.8	3.7														1
	UBS Investment Bank	3.6	3.5	9.8	8.2	6.7	6.7	1.5	1.8	3.7	3.9	5.4	5.5	2.4	2.5		
	UniCredit Group														-	-	
	Average	3.8	3.7	7.9	7.7	0.9	2.7	1.0	1.1	3.6	3.8	2.7	2.6	2.3	2.4	2.4	2.4



Forecast Table (13/16)

Indicator	Organization	South	South Korea	Argentina	tina	Indonesia	esia	Thailand	and	Mala	Malaysia	Philippines	pines	Singapore	pore	Viet Nam	Nam
		2017	2018	2017	2018	2017	2018	2017	2018	2017	2018	2017	2018	2017	2018	2017	2018
		i		ì		ì				i				i)	ì	
	African Development Bank				ı	ı		1		ı	ı		ı	ı	ı	ı	ı
	Asian Development Bank	ı															ı
	Bank of America Merrill Lynch																
	Bank of China																
	BNP Paribas																
	Commerzbank																
	Deutsche Bank																
	European Central Bank																
Investments	European Commission					,		,									
	HSBC Bank	9.7	1.6	5.3	4.2	5.7	5.8	2.1	1.7	8.9	5.7	10.4	13.1	-1.0	8.0		
	IMF				,	,											
	Intesa Sanpaolo				,												
	Morgan Stanley	4.8	3.5			5.1	9.9										
	OECD	7.2	2.9	9.0	6.9	5.3	2.7										
	UBS Investment Bank	8.7	4.7	9.0	9.9	5.2	9.9	5.1	5.0	9.0	4.3	8.5	8.8	-2.3	1.3		
	UniCredit Group																
	Average	7.1	3.2	7.8	2.9	5.3	5.9	3.6	3.4	7.9	2.0	9.5	10.9	-1.6	1.1		,
	African Development Bank										-						
	Asian Development Bank					,											
	Bank of America Merrill Lynch																
	Bank of China																
	BNP Paribas																
	Commerzbank	•															
	Deutsche Bank				,	,											
	European Central Bank																
Private	European Commission	•															
consumbrion	HSBC Bank	1.6	1.9	2.4	3.2	5.2	5.3	2.9	2.9	2.7	4.3	6.2	6.4	1.0	1.3		
	IMF					,											
	Intesa Sanpaolo																
	Morgan Stanley	2.2	2.3			5.1	5.4										
	OECD	2.0	2.7	1.0	2.7	5.0	5.1										
	UBS Investment Bank	2.1	2.1	2.4	2.8	2.0	5.3	3.1	2.9	6.7	2.0	5.3	2.7	1.3	1.9		
	UniCredit Group																
	Average	2.0	2.3	1.9	2.9	5.1	5.3	3.0	2.9	6.2	4.6	5.7	0.9	1.2	1.6	1	1



Forecast Table (14/16)

Indicator	Organization	South	South Korea	Argentina	ntina	Indonesia	nesia	Thailand	and	Malaysia	ysia	Philippines	ines	Singapore	pore	Viet Nam	Vam
		2017	2018	2017	2018	2017	2018	2017	2018	2017	2018	2017	2018	2017	2018	2017	2018
	African Development Bank																
	Asian Development Bank																
	Bank of America Merrill Lynch																
	Bank of China																
	BNP Paribas																
	Commerzbank																
	Deutsche Bank																
	European Central Bank																
Exports	European Commission																
	HSBC Bank	3.8	2.8	2.9	3.8	6.4	1.7	2.8	2.3	12.6	3.8	11.5	7.2	4.8	2.4		
	IMF													i			
	Intesa Sanpaolo																
	Morgan Stanley	4.0	4.5			5.7	0.9										
	OECD																
	UBS Investment Bank	2.3	5.7	-0.8	5.8	6.5	4.6	4.7	3.3	8.6	6.7	20.4	8.2	3.3	2.8		
	UniCredit Group	,														,	
	Average	3.4	4.3	1.1	4.8	6.2	4.1	3.8	2.8	11.2	5.3	15.9	7.7	4.1	5.6	•	•
	African Development Bank																
	Asian Development Bank																
	Bank of America Merrill Lynch																
	Bank of China																
	BNP Paribas													i		í	
	Commerzbank																
	Deutsche Bank	,															
	European Central Bank													i			
Imports	European Commission																
	HSBC Bank	8.9	2.5	8.8	0.1	4.5	5.1	4.3	2.0	15.3	4.2	12.4	10.9	5.5	1.9	,	
	IMF																
	Intesa Sanpaolo																
	Morgan Stanley	2.0	2.0			5.8	6.3							,		,	
	OECD						·									ì	
	UBS Investment Bank	7.8	0.9	5.8	8.0	3.9	5.3	6.9	4.8	13.1	6.9	11.9	10.0	2.9	2.7		
	UniCredit Group	1															1
	Average	7.2	4.5	7.3	4.1	4.7	2.6	2.6	3.4	14.2	2.6	17.1	10.5	4.2	2.3		



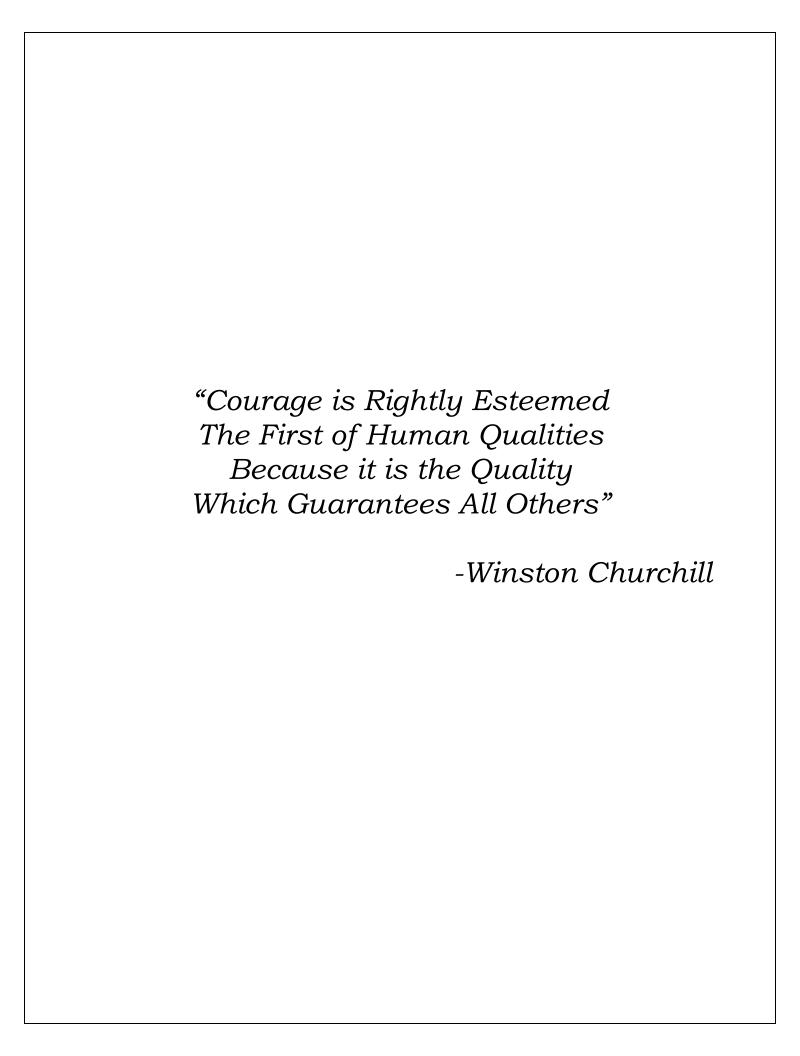
Forecast Table (15/16)

Indicator	Organization	South	South Korea	Argentina	ıtina	Indonesia	nesia	Thai	Thailand	Malaysia	ıysia	Philippines	pines	Singapore	pore	Viet Nam	Vam
		2017	2018	2017	2018	2017	2018	2017	2018	2017	2018	2017	2018	2017	2018	2017	2018
	African Development Bank																
	Asian Development Bank	1.8	1.8			4.3	4.5	1.2	1.6	4.0	2.7	3.5	3.7	1.1	1.5	4.0	2.0
	Bank of America Merrill Lynch	1.9	2.0	24.5	16.3	4.3	4.0	0.7	1.6	3.5	1.5	3.4	3.7	8.0	1.5		
	Bank of China																
	BNP Paribas			25.0	15.0							3.6	3.5				
	Commerzbank																
	Deutsche Bank	2.2	2.3	9.92	17.4	4.2	3.4	8.0	2.0	4.2	2.7	3.2	3.3	6.0	2.1	4.1	6.1
	European Central Bank																
Consumer Prices	European Commission																
	HSBC Bank	1.9	1.5	25.2	17.2	4.2	3.8	6.0	1.9	3.9	2.1	3.2	3.3	0.7	1.6		
	IMF	1.8	1.9	25.6	18.7	4.5	4.5	1.4	1.5	2.7	2.9	3.6	3.3	1.1	1.8	4.9	2.0
	Intesa Sanpaolo																
	Morgan Stanley	1.8	1.5	25.1	17.4	4.1	4.6	1.2	1.6	3.8	2.2	3.3	3.2	6.0	1.5		
	OECD	2.0	2.0	21.4	14.3	4.4	4.0			,						,	
	UBS Investment Bank	2.0	2.3	29.0	18.7	4.1	4.2	0.7	1.8	4.3	2.8	3.3	3.9	8.0	1.2		
	UniCredit Group																
	Average	1.9	1.9	25.3	16.9	4.3	4.1	1.0	1.7	3.8	2.4	3.4	3.5	6.0	1.6	4.3	5.4
	African Development Bank		1														
	Asian Development Bank	5.8	5.3			-1.7	-1.6	9.0	7.0	1.8	2.0	0.2	0.5	19.5	19.8	2.0	2.5
	Bank of America Merrill Lynch																
	Bank of China																
	BNP Paribas			-2.9	-3.4							-0.4	-0.7				
	Commerzbank																
	Deutsche Bank	4.6	4.2	-3.0	-3.3	-1.4	-0.8	10.1	10.1	1.6	2.2	-0.1	-1.2	21.0	21.4	-0.5	-0.9
Current Account	European Central Bank																
Balance	European Commission		1														
(% of GDP)	HSBC Bank	2.7	5.2	-3.4	-2.9	-1.4	-1.7	9.6	9.3	2.1	1.7	-0.2	-0.4	19.7	18.0		
	IMF	6.2	6.1	-2.9	-3.4	-1.9	-2.0	6.7	7.8	1.8	1.8	-0.1	-0.3	20.1	19.2	4.1	3.4
	Intesa Sanpaolo		1						•				·				
	Morgan Stanley	6.2	6.4			-1.6	-1.8	10.3	10.6	2.1	1.9	0.3	0.0	19.5	19.0		
	OECD	0.9	0.9	-2.9	-3.1	-1.4	-1.5										
	UBS Investment Bank	2.0	5.5	-3.2	-3.3	-1.7	-2.3	8.6	8.8	1.6	1.8	0.1	-1.5	18.9	16.4		
	UniCredit Group																
	Average	5.7	5.5	-3.1	-3.2	-1.6	-1.7	9.7	8.9	1.8	1.9	0.0	-0.5	19.8	19.0	1.9	1.7



Forecast Table (16/16)

Indicator	Organization	South	South Korea	Argentina	ıtina	Indonesia	esia	Thailand	and	Mala	Malaysia	Philippines	pines	Singapore	pore	Viet Nam	Nam
		2017	2018	2017	2018	2017	2018	2017	2018	2017	2018	2017	2018	2017	2018	2017	2018
	African Development Bank						·		·								
	Asian Development Bank																
	Bank of America Merrill Lynch																
	Bank of China																
	BNP Paribas			-6.1	-5.1							-3.0	-3.0				
	Commerzbank																
	Deutsche Bank	0.4	0.1	-6.2	-5.5	-1.6	-1.4	-2.8	-2.8	-3.0	-2.9	-3.0	-3.0	0.4	1.2	-5.4	-5.0
100	European Central Bank																
budget balance																	
(100 100)		6.0	1.4	-4.8	4.4	-2.4	-2.4	-0.2	-1.4	-3.0	-2.9	-2.7	-3.2	-0.2	0.0		
	IMF																
	Intesa Sanpaolo																
	Morgan Stanley					-2.5	-2.5	3.0	-2.8	-3.4	-3.1	-2.7	-3.0	9.0	9.0		
	OECD	2.0	1.8			-2.7	-2.5										
	UBS Investment Bank	0.8	0.7	-6.9	-6.3	-2.7	-2.3	-3.8	-3.3	-2.9	-2.9	-2.9	-3.0	-1.3	-1.0		
	UniCredit Group																
	Average	1.0	1.0	-6.0	-5.3	-2.4	-2.2	6.0-	-2.6	-3.1	-2.9	-2.9	-3.0	-0.1	0.2	-5.4	-5.0
	African Development Bank																
	Asian Development Bank																
	Bank of America Merrill Lynch																
	Bank of China																
	BNP Paribas	ì		49.4	49.2	ì				1		41.7	41.4		ì	1	
	Commerzbank	,									ì				ì		
	Deutsche Bank						,		,	,	,				,	ì	
Government Gross	Government Gross European Central Bank																
Debt	European Commission	,							,		ì				ì		
(% of GDP)	HSBC Bank	37.0	37.1	57.5	6.09	32.2	32.8	43.4	44.0	51.4	51.3	44.6	43.7	114.3	113.5	,	
	IMF																
	Intesa Sanpaolo	,									ì				ì		
	Morgan Stanley														,	,	
	OECD .																
	UBS Investment Bank	39.7	40.7	54.9	55.0	28.1	28.5	31.2	30.7	47.0	46.5	42.2	45.0	116.4	119.7	-	-
	UniCredit Group																
	Average	38.4	38.9	53.9	55.0	30.1	30.6	37.3	37.4	49.2	48.9	42.8	42.4	115.4	116.6	,	•



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