



Princeton Diplomatic Invitational 2019

Triumvirate 2020: United States
Chair: Andrew Li
Director: Olivia Ott

Triumvirate 2020

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Letters from the Chair and Crisis Director

Dear Delegates,

Welcome to PDI 2019! My name is Andrew Li and I am beyond excited to serve as your Chair for the Triumvirate committee.

A bit about me: I am a senior at Princeton concentrating in public policy with certificates in global health and East Asia. Outside of academics, the International Relations Council dominates my life- I am on our college Model UN team and I was the Secretary-General of PMUNC (Princeton's high school Model UN conference) a few years back. I also dabble in student government. When I manage to find an escape from academics, clubs, and the impending doom of my thesis, you can catch me running, playing pool, pleasure reading, Netflix binging (Peaky Blinders is the show of choice at the moment), or feasting on hot pot.

This will be my final time chairing a Model UN committee at Princeton, and probably ever- as much as I'd love to do it full time, I have been told that I am going to need a real job post-graduation. I am incredibly excited to share this final milestone in my Model UN career with you all. Please do not hesitate to reach out with any questions you may have.

Looking forward to welcoming you all to Princeton!

-Andrew Li

Dear Delegates,

Welcome to PDI 2019! My name is Olivia Ott, and I am honored to be serving as the Crisis Director for the Triumvirate this year. After first being introduced to MUN in high school, I have continued to compete as a delegate and Chair conferences on the college circuit with Princeton's MUN team, and this will be my third year staffing PDI. At Princeton, I am majoring in the Woodrow Wilson School of Public and International Affairs, with minors in Spanish and Entrepreneurship. In addition to doing MUN, I'm involved with undergraduate student government, an entrepreneurship pitch competition called TigerLaunch, and the club tennis team. I also love spending time outside (hiking, running, and sports), reading anything and everything that I can get my hands on, and binge-watching political dramas on Netflix.

If you have any questions or concerns prior to the conference, please feel free to reach out to me at oott@princeton.edu! I look forward to meeting all of you and foiling your crisis arcs throughout the weekend.

-Olivia Ott

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Committee Description

Welcome to 2020. Gathered here today are representatives from the three most powerful single states on Earth, the new Great Powers. As the era of Pax-Americana begins to recede, once again, global empires emerge on the global stage to compete for dominance. The United States, the Russian Federation and the People's Republic of China are gathered here in the First Triumvirate talks. The purpose of these talks is twofold. To establish guidelines on the technology in the domains of space and cyberspace, critical in the days to come. And to set a precedent for the future multi-polar world, populated by Great Powers vying for influence, control and prestige.

The focus of this committee will be regulating the weapons of the 21st century. Today, more than ever, the weapons of war are capable of not only lethality, but disrupting civilian life and economies in seconds. Cyberwarfare, disruption of satellites and the ever-present threat of nuclear weapons all exist in the arsenals of the Triumvirate. Regulating these weapons and establishing a code of Great Power negotiation for the 21st Century is essential in maintaining peace in an uncertain, climate-change afflicted future.

Establishing a model for future Great Power negotiations, similar to those in the 19th century Concert of Europe. The United States, Russia and China are the current Great Powers, but there are other potential contenders and aspiring powers. Effective policy could lead to a peaceful diplomatic future for all mankind.

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United States: The end of Pax-Americana

The United States has been the global leader in politics, economy and culture since 1991. In these thirty years, the United States has not been challenged by a near-peer global adversary. Today however the US is challenged on all fronts.

American interests are global and diverse, there are American embassies and soldiers in almost every nation on Earth. American aircraft carriers patrol the world's seas, American satellites in space provide navigation to billions of people. American films are playing in global cinemas, while American companies provide 24% of global GDP¹. The United States is the single strongest Great Power in human history. But its days may be numbered.

Most of the international institutions established at the end of the Second World War, are centered on American financial systems and the US order. The United Nations, World Bank and the dollar are cornerstones of post-war order. The Soviet Union was a competing Great Power, with power on par with that of the US. But even it was content with, for the most part, maintaining good relations with its rival and institutions.

Today however, American agreements are under threat. The United States has enjoyed peace, be it through policy, or peace through superior firepower. With the advent of comparable powers, the United States is left in a compromising position. United States power has been seen as largely holding global peace together². With no current set policy to deal with Great Power competition, the United States needs to adapt quickly, or the brief interval of relative peace may soon come to an end in a contentious world of rival global powers.

¹ Gramer, "Infographic."

² Glickman, "Back to the Future."

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Russian Federation: Imperial Restoration

The longest lasting modern Great Power, Russia has been on the global stage since the time of Peter the Great in the late 1600's. Russian soldiers pushed Napoleon back to Paris, Russian diplomats negotiated the original Concert of Europe. Russian was the second global lingua franca for the second half of the 20th Century from Berlin to Pyongyang. With the Soviet collapse, Russia was left with her empire in ruin, war machines and vast industrial concerns left to rot, her military capabilities rapidly deteriorating.

Russia's rebuilt military and careful maneuvering have placed it back on top of the global order. Russia maintains the largest nuclear arsenal in the world and possesses the second most powerful military³. As Alexander III stated, Russia has two trustworthy allies: her Army and Navy. Russia's military capabilities have grown dramatically. State analysts took careful note of the shortcomings of Soviet doctrine and equipment in Chechnya and Georgia. The modern Russian military is a highly capable, lethal force, with advanced weapons on the ground, sea in the air, space and cyberspace. The 2015 intervention in Syria proves Russia has become a Great Power capable of projecting strength abroad⁴.

For Russia, the United States could be both an ally and a threat. Russian and American interests in counter-terrorism converge, but diverge on the question of Eastern Europe's entry into the Western sphere of influence. Modern Russian industry is based on the export of fuel and raw materials, used as a political weapon to influence neighbors. Whether or not Russia will thrive, who it will ally with for the days ahead, remains to be seen.

³ "2018 Russia Military Strength."

⁴ "2018 Russia Military Strength."

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China: The Middle Kingdom also rises

China has been at the center of global foreign policy discussion for the past 20 years. Its rise is forecast to come to peak in this decade as it overtakes the United States as the number one economy globally. China has 18% of the world's population, over 1.4 billion people⁵. This makes it a massive market on its own, thus highly influential for all industries.

The Middle Kingdom has long been occupied with internal conflicts, with millions of deaths in the Taiping Rebellion, Chinese Civil War and Great Leap Forward. It has been invaded by nearly all colonial powers of the early 20th century and largely remained undeveloped until the latter half of the 20th century. Today, in 2020, China steps onto the world stage as a force to be reckoned with.

China's rise has worried the United States in particular as Chinese chipsets are used in many smartphones, giving the Chinese state enormous intelligence capabilities, any device with a Chinese microchip is a robotic spy.

The capability of China's actual military is hotly debated. While a massive fighting force of about 2 million men and women along with thousands of rockets and missiles, China would at first seem a Great Power surpassing both the United States and Russia. But Chinese weapons are highly reliant on Russian exports of high tech items like jet engines, while Chinese personnel operate under a rigid system and have never seen actual combat. The Communist party itself is dubious about the PRC's military capacity.

Regardless of its military prowess, it would be wise for all parties involved to avoid a direct shooting war with each other. Diplomacy is always preferable, particularly for the nation with the least nuclear warheads.

⁵ "China Population (2019) - Worldometers."

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The Arsenal of Uncertainty: Warfare in the 21st Century

Cyberspace: A new domain

The newest domain in warfare, cyberspace is unique in warfighting environments. Cyberspace is not a tangible, physical location. Cyberwar is not war over borders, resources or influence. Cyberspace is a military and legal gray area. A cyberattack is not a declaration of war, it is not an attack in the same way an artillery salvo is. But cyberattacks can do just as much, if not more damage. Cyberattacks require very little effort, no highly trained military units are put in danger and a well-placed cyber-attack can bring the war to civilians and a nation to its knees before the first tanks have crossed the border.

The 2014 occupation of Crimea by the Russian Federation and the subsequent hybrid war in Ukraine was an ideal testing ground for Russian cyber weapons.

On December 23rd, 2015, the lights went out in Western Ukraine. The cause? A malware attack on a power-plant, which cut power for 250,000 Ukrainians in the dead of winter⁶. This damaging attack was a best case scenario. The Ukrainian power plant was remotely shut down, by a well-coordinated cyberattack. Fortunately, a 1960's era manual backup system enabled Ukrainian controllers to restart the plant and damage was minimal. Most power plants outside of Ukraine are not this secure.

There are no regulations on cyberwarfare. Cyberattacks leave no spent brass, no national identifier. They are the ultimate false flag operation and they can be used to achieve any means. So far, no country has shut down another with an all-out cyber blitzkrieg. But it doesn't have to hit an entire country.

⁶ Zetter, "Inside the Cunning, Unprecedented Hack of Ukraine's Power Grid."

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One air traffic control tower infected with a virus that changes one or two numbers could kill hundreds of people. Hospitals could have their power cut, databases of financial institutions could be wiped clean. Most businesses do not invest in high grade encryption or security. Outdated operating systems, simple passwords and careless users lead to thousands of small scale cyber-attacks daily. When the “big one” occurs is only a matter of time.

For all three Great Powers here today, cyberwarfare is a critical element of future conflict. Russia has implemented it to great effect in Ukraine, China has conducted industrial espionage and stolen highly sensitive information on American defense industry products like the F-35 stealth fighter. Meanwhile, the American president has eliminated nearly every important cybersecurity position and has made little progress on defining what cybersecurity is⁷.

The goal of this committee will be to create a definition of cyberwar and a method of prosecuting cyber-criminals effectively and within the boundaries of international law.

Intelligence Gathering: Of Chips and Men

While Russia has effectively weaponized the Internet, Chinese consumer giant Huawei has recently gained infamy in global politics. China has become a major manufacturing power for microchips used in smartphones. These microchips are found in almost all devices and can be used for various intelligence gathering purposes, such as location tracking, internet search history finding and the creation of data bases on foreign citizens and their habits.

With the weaponization of big data and the ability to collect it from all citizens, both domestically and abroad, China has a major advantage over its competitors, despite its relatively untrained military.

⁷ Wheeler, “In Cyberwar, There Are No Rules.”

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Microchips are extremely dangerous tools which can be found anywhere. In 2015, Amazon Web Services was building a cloud network for the CIA. A third party reviewing the security of Amazon's network found rice grain sized microchips that were not supposed to be a part of the server motherboards⁸. The motherboards came from Super Micro, a Chinese company which had previously supplied server hardware for Navy warships, CIA drone operations, DoD data centers and other critical computer infrastructure.

This data breach had allowed China a backdoor into many of the United States' most vital operations. This form of intelligence gathering could turn the tide of a war. With the press of a button, Chinese commanders could spread false information, disrupt communications and then seek and destroy now isolated American military assets. It could also allow China to shut down internet access throughout data centers, affecting millions of people across the world. With 900 customers in 100 countries⁹, each Super Micro chip is a tiny robotic spy and infiltrator, ready to be armed at a moments notice.

For all consumers, electronics will only increase in importance as more and more enter our homes. The question for this committee is broad and pressing: How will corporations and states regulate the digitized collection of citizen's data and to what extent will international bodies be able to prosecute violators?

Space: Days of Future Past

Science fiction has predicted wars in space since the 1930s. Today there is relative peace, with satellites from all space-faring power circling the Earth along with two space stations. This is not to say that space warfare is not impossible.

⁸ "China Used a Tiny Chip in a Hack That Infiltrated U.S. Companies."

⁹ "China Used a Tiny Chip in a Hack That Infiltrated U.S. Companies."

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Like cyberspace, a conflict in space is not so much a fatal conventional military attack, but one of denying the use of certain systems and satellites to disrupt life on Earth. Currently there are no armed or potentially weapons capable spacecraft in orbit or under development, with the possible exception of Boeing's mysterious X-37 space plane.

However, Russia, China and the US have tested and possess anti-satellite missiles¹⁰. In the event of a full on conflict, a fighter jet or ship could fire such weapons at enemy spy or communications satellites and disable them. In space itself, maneuverable satellites, like Russia's Polyot and China's Shijian series have demonstrated that the technology to build a highly maneuverable, armed satellite is very much within reach.

The first target for a war in space would be satellite navigation. The United States has its Global Positioning System (GPS), while Russia has an equivalent system called GLONASS. China is developing its own system: BeiDou, which will soon come into operation. Both GPS and GLONASS are used in conjunction on smartphones, cars and aircraft. Each system has a constellation (a network of satellites in orbit) that helps make precision movements possible¹¹. More satellites means more precision, regardless of nationality. Destroying these satellites would inevitably damage global trade, disrupt navigation and bring the modern world to a grinding halt. Cyber or conventional attacks could easily be used to disable them.

Space possesses one unique critical risk. Orbital velocity is about 27,359 km/h or 17,000 mph. At that speed, a fleck of paint carries the energy of a bullet. Anything hitting a satellite in orbit is a weapon, regardless of intention. More terrifying still is the prospect of Kessler syndrome, or the orbital cascade. A single satellite being broken apart could trigger it. One satellite creates thousands

¹⁰ Clark, "It's Going to Happen."

¹¹ Bisht, "What Is GLONASS And How It Is Different From GPS."

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of pieces of debris, each of which creates thousands more in orbit. This could both destroy all satellites in orbit and make space useless for all purposes until the debris is removed¹².

Causing an irreversible orbital cascade will have major repercussions on Earth. This committee should make it a priority to both establish rules and regulations on conduct in space as well as on cleaning Earth's orbit and making it a safer place for navigation.

¹² "The Kessler Syndrome Explained."

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Questions to Consider

1. What rules will be established to govern over cyberwar?
2. Will there be a definition of cyber-war criminal? How will they be prosecuted?
3. What limits can governments place on private corporations to limit the amount of information that can be collected domestically and abroad?
4. Will there be overarching international regulation for chip manufacturers and rules to prosecute companies that do not comply?
5. What rules will govern space warfare, what satellites and technologies will be allowed in orbit?
6. How will we establish guidelines on safe conduct of debris removal and avoidance in Earth's orbits?

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Character List United States

Secretary of Defense Patrick M Shanahan

An MIT Graduate with a major in Mechanical Engineering, Shanahan joined the Boeing aircraft company in 1986. He has managed the successful 777 and 757 programs as well as military acquisition programs like the V-22 Osprey for the United States military. Appointed as successor to James Mattis, Shanahan was given the role of continuing Trump's military buildup. Shanahan has connections in the United States military industrial complex and is well versed in both the technology and the legal ramifications of new military hardware. He has opposed the sending of American arms to Ukraine to support the government against Russia. Shanahan is particularly interested in space warfare and the consequences of taking combat into space.

Ambassador to Russia Jon Huntsman

Former governor of Utah, Huntsman was handpicked by President Trump to serve as ambassador to Russia. Huntsman supports further work in settling the Ukraine and Syria crises. He speaks fluent Mandarin and has served as Deputy US Trade Representative, Ambassador to China and for John McCain and Mitt Romney's presidential campaigns. He is a Brookings Institute Scholar and has connections throughout the Republican establishment in the United States.

Ambassador to China Terry Branstad

Former governor of Iowa, Branstad is a long standing Republican. Initially elected as governor at age 36, he became the youngest governor in Iowa's history¹³. His focus was initially fixing Iowa's unemployment rate which he did successfully through the 1990's. Outside of politics, he has served on the boards of the American Future Fund, the Iowa Health system and other institutions. As ambassador to China, Branstad works with Xi Jinping, who he met during a 1985

¹³ "Branstad, Terry."

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farm visit of Chinese delegates to Iowa. He has a close working relationship with the Chinese leadership and is expected to be able to make progress on negotiations.

Mark Zuckerberg

Zuckerberg, a Harvard dropout, is the creator of the largest social media platform in the world, Facebook, with over 2 billion active users. Facebook has been the center of controversy recently, with data leaks¹⁴ and accusations it was not doing enough to police content. Nevertheless, Facebook has made Zuckerberg one of the most influential people on Earth. Zuckerberg is married to Priscilla Chan and has connections with China's universities and educational establishments. He has pledged to donate most of his wealth to charitable causes, like eradicating all disease by 2100.

Lockheed Martin CEO Marillyn Hewson

A graduate from the University of Alabama, Hewson began her career as an industrial engineer, rising through the ranks of Lockheed Martin, the world's most valuable defense contractor. She took control of the company in 2013 as CEO¹⁵. Since then, she has shifted the company focus to military hardware. Lockheed's most valuable programs are with the United State Department of Defense, such as the F-35 Lightning II fighter program, the most expensive military acquisitions program in history¹⁶. With connections across the globe in the militaries of all American allies, Lockheed Martin is one of the most influential American corporations.

Elon Musk

Born in Pretoria South Africa, Elon Musk has become one of the most well-known figures in technology and a symbol of American technological innovation. He has founded Tesla and SpaceX, two companies, driving the cost of both down dramatically. SpaceX rockets have brought

¹⁴ "Mark Zuckerberg."

¹⁵ "Marillyn A. Hewson."

¹⁶ US, "What Went Wrong with the F-35, Lockheed Martin's Joint Strike Fighter?"

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the cost of putting a pound in orbit to \$2500 per pound¹⁷, a massive reduction compared to 10 years ago. Elon Musk has long advocated for space exploration and Mars colonization as the only way to guarantee survival. SpaceX is currently developing an ultra-heavy lift rocket for the purpose of travelling to Mars, while Tesla has posted record profits for 2019 and early 2020. Musk is soon going to begin experiments on Neuralink, linking human brains to computers with non-invasive headsets.

Chairman of the Federal Reserve Jerome Powell

Chairman of the Federal Reserve, Powell is a Princeton graduate who has worked in investment banking for much of his career before joining the Board of Governors. Powell was appointed by President Donald J Trump in 2017 and approved in 2018. Powell has been invited to this committee to ensure that American financial interests are met. He is wary of Chinese lending and their neo-colonialism in Africa. There is a growing movement in Powell's cabinet of advisors supporting more lenient American loans to Africa to combat China directly.

Director of the CIA Gina Haspel

Haspel was appointed by Donald Trump to serve as director of the Central Intelligence Agency, a position that was limited in power in 2005. Haspel has been criticized for her involvement at a CIA black-site in Thailand, where prisoners were tortured in 2002 on her orders¹⁸. Haspel has also been indicted in destroying evidence of said black-site, but her position remains unchallenged domestically. She is in charge of the United States and its covert operations abroad, including those in space and cyberspace.

Director of Science and Technology Policy Kelvin Droegemeier

The highest science position in the government, Kelvin is in charge of advising the President on matters of science and technology. He is a former meteorologist and highly respected in scientific

¹⁷ "Elon Musk | Biography & Facts."

¹⁸ "Perspective | I Went to Prison for Disclosing the CIA's Torture. Gina Haspel Helped Cover It Up."

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circles for his stance on the dangers of climate change¹⁹. He now fills a position where he manages both advising the president and creating environmental policy to present to legislators. Droegemeier is particularly interested in computer simulations of thunderstorms and severe weather prediction, a technology which has recently been advancing with developments in machine learning technology.

United States Trade Representative Robert Lighthizer

A Republican from Ohio and graduate of Georgetown University, Lighthizer was the first Deputy Trade Representative under the Reagan Administration²⁰. He now returns to serve with President Trump in the Triumvirate talks. He is a staunch defender of protectionism as well Trump's America First rhetoric. Lighthizer has been described as a fair negotiator, though skeptical of Beijing's ambitions abroad. With his experience in trade negotiations and relations, Lighthizer's attention has been focused on reducing China's competitive advantages and continuing the trade war.

Director of the FBI Christopher Wray

Former Assistant Attorney General under the Bush Administration, Wray was nominated by President Trump in 2017, since focusing on internal matters as well as investigating Chinese spies within the United States. Wray considers them to be a major threat to United States Security, particularly suspecting Chinese students and professors which has led to controversy. His investigations continue, particularly against Chinese consumer electronics giant Huawei who he has publically warned American consumers against²¹.

Secretary of Energy Rick Perry

¹⁹ Irfan, "Trump Finally Picked a Science Adviser. He's a Meteorologist. Named Kelvin."

²⁰ "Robert E. Lighthizer."

²¹ "The FBI, CIA and NSA Say American Citizens Shouldn't Use Huawei Phones."

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Former Governor of Texas, Perry has served in the United States Air Force as a C-130 cargo pilot. He is well liked in his home state of Texas, where despite his Republican leanings, he supports clean energy development and has drastically reduced air pollution²². Perry's focus in the Triumvirate will be on American Energy Independence. He supports the transition to fossil fuels and has voiced concerns about climate change and the dangers it poses. Perry is particularly worried about Russian exports of hydrocarbons to Europe, which give Russia an edge over nations like Germany in negotiations and in the event of a war.

Director of DARPA: Dr. Steven H Walker

Formerly the deputy assistant secretary of science for the US Air Force, Walker has worked on thrust vectoring technologies and advanced detection systems for aircraft. His work at DARPA (Defence Advanced Research Projects Agency) focuses on the development of advanced weapons and technologies on behalf of the US government. Currently he is in charge of classified research pertaining to the fields of combat robotics and artificial intelligence. He has also worked on developing hypersonic aircraft capable of spaceflight. His expertise on matters of aerospace technologies will be crucial for the committee and outlining the regulations for militarizing space. His technological advancements have also drawn the interest of Chinese firms, which thus far are suspected of stealing advanced blueprints for their own military aircraft.

Amazon Inc. CEO Jeff Bezos

Born in Albuquerque, New Mexico, Jeff Bezos traded a comfortable life as a finance executive to dedicate himself to the realization of a long-standing vision: developing an online bookstore capable of competing with traditional "brick and mortar" booksellers. Today, Amazon.com, Inc. is the world's most valuable company, one of the United States' largest

²² "Rick Perry."

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employers, and a significant disruptive force in markets ranging from toys to cloud computing. By virtue of its vast size and reach, Amazon.com, Inc. retains significant quantities of data on the broader American public, including, most significantly, their shopping habits, tastes and preferences, and a wide array of demographic statistics. Amazon Web Services, Inc., the company's cloud computing platform, controls a significant share of the global cloud market--a striking 34 percent--giving Amazon's engineers and analysts significant abilities to shape the way consumers, companies, and even governments access and use the broader internet.

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Character List Russian Federation

Minister of Defense Sergey Shoigu

Born in Chadan, in the Republic of Tuva, Shoigu studied at the Krasnoyarsk Polytechnic Institute and then rose through the Soviet bureaucracy. He has served as a construction foreman for industrial concerns, chief engineer on multiple projects and as Chairman of the Russian Rescue Corps and the Governor of Moscow. Now as Minister of Defense, Shoigu is in charge of modernizing and remodeling the Russian military²³. Shoigu has supported a leaner more modern military along with the abolition of conscripted soldiers. Well trusted in Moscow, the defense industry supports him and his programs.

Ambassador to the United States Sergey Kislyak

An ethnic Ukrainian educated at Moscow's Engineering Physics Institute, Kislyak rose through the ranks of the Soviet diplomatic staff. He has served as ambassador to NATO, Belgium and now the United States. Well respected in Washington, Kislyak is considered an exemplary diplomat, though distant from President Putin²⁴. Kislyak has extensive contacts in Washington DC and is well respected by his American counterparts. Rarely appearing in public, Kislyak has been at the forefront of negotiations during the Crimea crisis and US expulsion of diplomats. Working behind the scenes, he knows how to negotiate with the United States and its interests better than anyone.

Ambassador to China Andrey Denisov

Having served as Soviet and subsequently Russian ambassador to China and the UN, Denisov is a well versed diplomat. He is fluent in Russian, English and Chinese. As ambassador to

²³ "Sergei Shoigu."

²⁴ <https://www.facebook.com/anne.gearan>, "Moscow's Man in Washington Is at the Center of the Political Moment."

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China, Denisov has an integral role to play with Russia's relationship with East Asia. Russian exports to the region are critical, China imports high end jet engines, defense products and ships. While industrial espionage has been a concern for Russian manufacturers, Denisov has stressed that Russia and China benefit from a mutual partnership, particularly in Great Power competition with the United States. Denisov has supported continuing cordial relations as long as the two powers' interests do not interfere.

Arkady Volozh

Volozh is the CEO of Yandex, Russia's largest technology company. Born in Kazakhstan, Volozh moved to Moscow and worked on technology throughout the 1990's. His company is the fifth largest search index globally, serving Russia, the Commonwealth of Independent States, Armenia, Israel and other states. Yandex has a development lab in Silicon Valley and Istanbul. It also incorporates a food delivery service, a satellite navigation service, translation software, ride hailing and autonomous car development²⁵. Volozh describes the company as the Silicon Valley of Russia, working on all fronts of technological development. It is currently under restriction in Ukraine due to accusations of data gathering during the Crimea crisis.

Rostec CEO Sergey Chemezov

Rostec is the leading Russian State Corporation, responsible for the export of all Russian aviation, weapons and vehicles. Rostec has taken over the business of all former Soviet industrial

²⁵ "Russia's Yandex Has Created What May Be the Most Aggressive AV Tech."

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concerns, now employing 453,000 people with an annual revenue of \$18.9 billion. Its product lines include Kalashnikov, Mil, Mikoyan Gueverich (MiG), Sukhoi and other military enterprises from the former Soviet Union. Rostec oversees the production of all Russian weapons systems and is fully capable of building anything, short of an aircraft carrier. Chemezov himself has been critical of Western sanctions on him and Syria and stressed that Russian arms exports to the Middle East are not meant to undercut American companies. Chemezov has been barred from entering the United States by the Obama administration²⁶. He is also a close friend of Putin since his days in the KGB in East Germany.

Chairwoman of the Bank of Russia Elvira Nabiullina

Born in Bashkortostan, the largest autonomous republic within Russia, Nabiullina began her career as the Soviet Union collapsed. She worked at the Russian Union of Industrialists and Entrepreneurs, then for Sberbank and then a Russian think tank²⁷. She has served as Minister of Economic Development and trade under President Medvedev and Putin. As chairwoman of the Bank of Russia, Nabiullina managed the Russian financial crisis of 2014 during the Ukraine crisis. She has been appointed as a Yale World Fellows scholar and has connections throughout Russian and international financial institutions. She has supported diversifying Russia's economy away from oil and gas exports. While distant from Putin personally, she has expressed support for his government and its strong leadership of Russia.

Mikhail Prokhorov

A billionaire and political activist, Prokhorov owns Nor Nickel, a global leader in nickel and palladium production, elements essential to electronics and aircraft parts. Palladium is also used in

²⁶ Reid, "US Sanctions Cannot Succeed, Says Rostec CEO Sergey Chemezov."

²⁷ "Elvira Nabiullina | Банк России."

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nuclear fusion experiments. Mikhail Prokhorov is one of Russia's few philanthropists, his organization is run by his sister Irina. He has also run for the office of Russian president in 2012, gaining 8% of the votes, but he has been accused of being a puppet for Putin's United Russia party²⁸. Prokhorov has announced that he would like to raise Russia's standard of living and bring it closer to the European Union while distancing the nation from human rights abusing regimes in the Middle East.

Director of the FSB Alexander Bortnikov

A former KGB agent, Bortnikov rose through the ranks of the newly formed FSB and became its leading agent. He is accused of overseeing the murder of Alexander Litvinenko through polonium laced tea²⁹. Bortnikov has come under fire within Russia for allegedly attempting to legitimize the Stalinist Great Purge, which has led to wide contempt for him among Russia's leading academics and historians. He is a close ally of Putin and has control of Russia's state security agents. Bortnikov's agents are rumored to be behind the assassination attempt on Sergei Skripal and his daughter Yulia in Salisbury England in March of 2018. As of now, Bortnikov denies these allegations.

Minister of Science and Higher Education Mikhail Kotyukov

Formerly a property and real estate manager, Kotyukov was appointed to this newly created position in 2018 when the Ministry of Science was split in two. Kotyukov formerly was in charge of the Federal Agency for Scientific Organizations, a controversial organization which is considered to

²⁸ "Mikhail Prokhorov."

²⁹ "Biographies of the Political Leaders of the Medvedev Administration."

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be a power grab on science by the Russian government³⁰. Russian scientists have strongly opposed Kotyukov, writing to Putin personally. Kotyukov's job security is limited, but he still has access to the Russian industrial concerns and advanced research to develop new technologies. Putin has tasked him with making 15 world class universities to produce more scientific research and papers.

Chief of Staff, Presidential Executive Office Anton Vaino

The grandson of high-ranking Estonian Communists, Anton Vaino graduated from the prestigious Moscow State Institute of International Relations in 1996 with a focus on Russian-East Asian affairs. In the early 2000s, Vaino left the Russian Foreign Ministry in favor of the Presidential Administration, where he quickly rose to prominence thanks to his reputation for discretion and unyielding loyalty toward Vladimir Putin, following the Russian president to the prime minister's office during Putin's brief hiatus from the presidency (2008-2012). As chief of staff of the presidential administration, Vaino controls bureaucratic access to the president and oversees an expansive network of Putin-loyalists and operatives across the highest echelons of the Russian government to ensure the integrity of Mr. Putin's political base. Opposition politician Alexei Navalny has repeatedly assailed Vaino, among others, of having used his political connections to Putin to enrich himself and his family by pillaging state assets and participating in various corrupt schemes.

Director of the Foreign Intelligence Service Sergey Naryshkin

³⁰ Allakhverdov, Pokrovsky, and Pm, "Head of Controversial Agency Becomes Russian Minister for Science and Higher Education."

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A graduate of the Leningrad Institute of Mechanics, Naryshkin has served as Soviet Ambassador to Belgium, then as the chief of several investment departments. Since 2016, he has been director of the Foreign Intelligence Service³¹. Naryshkin's experience and connections in Europe are essential to his position in intelligence. He is widely believed to be connected to various left and right wing movements in Europe supporting Russia's foreign policy. Naryshkin is also well connected with the United States, having visited Washington on various trips abroad. He was black listed under the Obama Administration. Naryshkin's spies are highly competent agents abroad, capable of infiltrating deep into news agencies, governments and companies. For all intents and purposes, the Soviet era capabilities of monitoring have only been enhanced under Naryshkin.

Minister of Industry and Trade Denis Maturov

Since 2011, Maturov has been a Professor for Management Systems of Economic Objects in Moscow's Aviation Institute. Maturov's role as Minister of Industry and Trade is to ensure Russian trade relations go smoothly. He has worked closely with the Chinese government, exporting valuable technologies to them, while retaining the industrial secrets on how to produce them. Maturov is personally suspicious of Chinese ambitions in the Far East as well as American sanctions. He sees a closer relationship between Moscow and Europe as a whole as the way forward. Maturov has championed Russian built defense and industrial products across the world, in former Soviet ally states, like Syria and various African nations. Maturov has worked closely with Bashar Al-Assad's Syria in the reconstruction of the nation as the civil war winds down.

Minister of Energy and Gazprom CEO Alexey Miller

Miller holds a PhD in economics from the Leningrad Institute of Finance and Economics. His career began in Saint Petersburg Russia before he became Deputy Director of Energy in 2000. He serves on the Gazprom board of Directors as CEO, blending the roles of the state and

³¹ "Sergey Naryshkin – Russiapedia Politics and Society Prominent Russians."

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corporations in modern Russia. Miller has built Baltic Sea pipelines sending Russian gas directly to Europe, making European clients heavily reliant on Russian gas exports³². This policy of energy dependence has been weaponized by Putin with Miller's help, giving Russia sway in the domestic affairs of its neighbors. So far Gazprom has built pipelines for hydrocarbon export to Germany, Bulgaria, the Baltic States and China. 30% of the EU's gas comes from Russia, with Estonia, Latvia, Lithuania and Bulgaria 100% reliant on Russian gas. Meanwhile, China's industrializing north is increasingly importing Russian gas through new pipelines. Gazprom is expanding, with the recently completed Turkstream pipeline crossing the Black Sea, providing gas to Turkey, Serbia and the rest of Southeastern Europe³³.

Director of Advanced Projects and Research Andrei Grigoriev

Created as a counterpart to the American DARPA, the Russian military science organization is aimed at creating a new organization with a civilian research and development team used for military industrial technological developments. Grigoriev himself is a fairly mysterious figure, rarely appearing in public. As director of Russia's scientific development and advanced technology research, Grigoriev's department has been hard at work on military exo-skeletons, automated ground and air combat vehicles. Grigoriev's projects are primarily for the Russian military forces. As such he has connections among Russia's military establishment and personally corresponds with Defense Minister Sergei Shoigu.

³² "Beyond Nord Stream 2: A Look at Russia's Turk Stream Project | Bruegel."

³³ "TurkStream line pipe in Serbia to be constructed before end of 2019."

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Character List People's Republic of China

Minister of Defense Wei Fenghe

Hailing from Shandong Province, Fenghe is a former PLA artillery officer. In 2012 he swore allegiance to Xi Jinping and in 2016 he was appointed to command of the PLA Rocket force, controlling China's ballistic missiles³⁴. He has supported Xi's military budget increases and the modernization of China's military, particularly its nuclear missile delivery systems. He has connections in Russia's military brass and has strongly encouraged cooperation with Russia for achieving China's geostrategic aims. Fenghe's goal is for the Chinese military to be able to achieve its aims through force and power projection.

Ambassador to United States Cui Tiankai

A career Chinese diplomat, he has worked on behalf of the PRC since the early 1980's. Tiankai's main role has been maintaining trade with the United States and keeping up relations with Donald Trump's administration. Tiankai has denied accusations that Chinese secret service agents have conducted industrial espionage on American defense firms. He is one of few Chinese diplomats to have high level access to Washington's elite. Tiankai wishes to see continued Chinese American relations and an end to the trade war between the two countries.

Ambassador to Russia Li Hui

Li Hui is a figure mostly hidden from public view. He has presided over a massive increase in bilateral relations between the two countries. Sino-Russian trade is now at over \$90 billion annually as of January 2020. Li's role has been to increase relations between the two Great Powers and to create closer ties between the two states. China has invested in developing the Russian Far East and implemented 28 projects to build up new infrastructure³⁵. Hui believes a Sino-Russian

³⁴ "Minister of National Defense Wei Fenghe."

³⁵ "Interview: Chinese Ambassador Says China-Russia Ties Set to Expand - Xinhua | English.News.Cn."

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Union is central in establishing a new economic order. He has high level access to Moscow, but is under constant surveillance by the FSB.

Tencent Chairman Ma Huateng

Huateng is the CEO of China's Tencent Holdings, which is one of China's most powerful businesses. He founded the company in 1998 and since it has expanded to become a self-described "internet-based technology and cultural enterprise"³⁶. Based in Shanghai, it owns music services and holds stakes in all technological developments, including autonomous cars, space technology and renewable energy. Tencent has faced legal accusations of working on behalf of the Chinese military establishment and government.

President of CASIC Gao Hongwei

China Aerospace Science and Industry Corporation is the leading Chinese defense firm. It develops missiles, spacecraft and launch vehicles for both China's military and foreign customers. The company has multiple branches along with 146,000 employees³⁷. Gao Hongwei manages foreign relations for one of China's major aerospace contractors. He is a very private figure, working on the diplomatic sidelines in the interests of the Chinese government. The company's military hardware is regarded as subpar compared to Western and Russian hardware, but it is cheaper and sold with no stipulations.

Chairman of ICBC Yi Huiman

As Chairman of the Industrial and Commercial Bank of China, Yi is the head of the largest bank in the world. It has assets worth 4 trillion dollars. The bank is responsible loans money out for all sectors, focusing on manufacturing and transportation for revenue. It is one of four major banks responsible for China's booming economy and growth. Overseas business in Africa and

³⁶ "Tencent 腾讯."

³⁷ "Gao Hongwei, President of CASIC Pays an Inspection Visit to Aisino-Company News-Aisino."

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infrastructure throughout Eurasia has provided revenue and political capital for the Chinese state. Yi Huiman is an essential figure in the Chinese economy. His priority is economic growth and stability for China, avoiding major events like a trade or shooting war with other Great Powers.

Jack Ma

Jack Ma is perceived as the global face of Chinese business and industry. He founded Alibaba in 2000, following Ma's success with web design during the 1990s. Alibaba grew rapidly, becoming one of China's most valuable companies. Ma resigned from the company in 2018 to pursue a career in philanthropy³⁸. His estimated net worth is \$32.6 billion. Fluent in English and Mandarin, Ma is now a philanthropist advocating for free trade and global peace. Ma has recently attended the 36th Space Symposium in April 2020, speaking on the subject of space debris and Kessler syndrome being a major risk to global peace and economic development.

Minister of State Security Chen Wenqing

A former vice minister of security, Wenqing has been appointed to control the reforming ministry. China's foreign intelligence is primarily provided by the PLA (People's Liberation Army), with an aggressive program of developing cyberweapons capabilities³⁹. The Ministry of State Security focuses specifically on internal matters, such as managing China's social credit system and security cameras. Chen is well qualified to run China's state security apparatus, with connections throughout the Chinese domestic security establishment. Chen has expressed limited interest in operations abroad.

Minister of Science and Technology Wang Zhigang

³⁸ "Jack Ma."

³⁹ Mattis, "Chen Wenqing."

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Wang holds a doctorate in management from Tsinghua University. He has worked for numerous Chinese tech firms and as a research-level engineer⁴⁰. With his position as Minister of Science and Technology, Zhigang is focused on making China an innovation powerhouse to rival the United States. Zhigang wants to remove China's dependence on manufacturing and make Chinese tech companies on par with those in the US, Korea and Japan. Zhigang is rumored to have connections with high level Microsoft executives.

Chairman of the Central Commission of Cultural Progress Wang Hunin

Born in Shanghai, Wang Huning showed strong intellectual and analytical capabilities from a young age; his academic promise secured him a spot at the prestigious Shanghai Normal University in the waning days of Mao Zedong's Cultural Revolution. At university, Wang honed a passion for legal and jurisprudential theory, eventually leveraging his abilities to secure a position on the law faculty at Fudan University. A stalwart ideologue committed to securing the Communist Party's rule over China, Wang began to attract the attention of powerful Shanghai, and then Beijing, politicians and party members in the 1990s. As CPRO director, Wang provided fellow party and government officials policy recommendations on various matters of public policy; most significantly, it was Wang's CPRO that devised and helped launch the central ideological vehicles for three successive Chinese presidencies--those of Jiang Zemin, Hu Jintao, and, currently, Xi Jinping. In late-2017, Wang became director of the Central Commission for Guiding Cultural and Ethical Progress, a party commission charged with national efforts to enmesh "socialist harmony" into China's national spiritual and social fabric; Wang's commission controls the scope and intensity of national propaganda efforts.

Chairman of the National Development and Reform Commission He Lifeng

⁴⁰ "Minister of Science and Technology Wang Zhigang."

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A career politician from Guangdong, Lifeng rose through the ranks of the CCP bureaucracy over the years. His concentration in economics eventually led him to his current position as leader of the NDRC. This bureau serves the purpose of managing China's quasi-market economy, planning policies for social and economic development. With a staff of about 890 dedicated civil servants, Lifeng controls the future of Chinese policy, determining the way forward for China's now nearly developed economy. With high level access to the best actual assessments of Chinese economic and military information, Lifeng is one of few individuals to have a fairly good idea of what is actually going on inside the nation.

Chairman of the State Administration for Industry and Commerce Zhang Mao

On paper, Zhang Mao's organization serves the purpose of administering legality for the commercial and industrial sectors of the PRC. It should in theory prevent monopolies and encourage intellectual property protection and licensing. In practice, the SAIC has been accused of performing actions to benefit the Chinese state, like stealing American technical documents through spies in foreign universities, banning foreign companies from competing in domestic markets for goods which China produces and effectively creating protectionist measures where Beijing sees fit. The organization is highly connected to the Chinese military industrial complex.

Minister of Finance Liu Kun

Born in Guangdong, Kun lived through the Cultural Revolution, working in a factory before attending Xiamen University. He rose through the ranks of the communist party and became the Minister of Finance in 2018. The Ministry of Finance has in recent years become a sort of centralized planning and census bureau, administering budgetary policies, fiscal and tax policy as well as assessing debts. The role of the Ministry of Finance is partially diminished by the National Development and Reform commission, meaning the ministry of finance can not regulate money

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markets or interest rates. The Ministry of Finance instead serves as the administrator, as compared to the NDRC's think-tank type role.

Director of the Scientific Research Steering Committee Guo Tan

Created as a Chinese response to DARPA, the American advanced military technology research division, the SRSC has thus far been working on multiple high tech military R&D projects. The agency has helped fuse civil and military sectors in technology development just as the US and Russia had previously done⁴¹. The SRSC has the challenging role of making China's military a modern force, which is a challenge as the PRC has not fought a war since the 70's, while it has not arguably won a conventional war since 1949. The SRSC's current projects include cyberwarfare and hypersonic vehicle research. It is unconfirmed, but believed that SRSC scientists have also been developing autonomous combat robotics.

⁴¹ Diplomat, "China Reveals New Military Technology Agency."

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