The People's Bank of China's Monetary Armament

Capabilities and Limitations of Evolving Institutional Power

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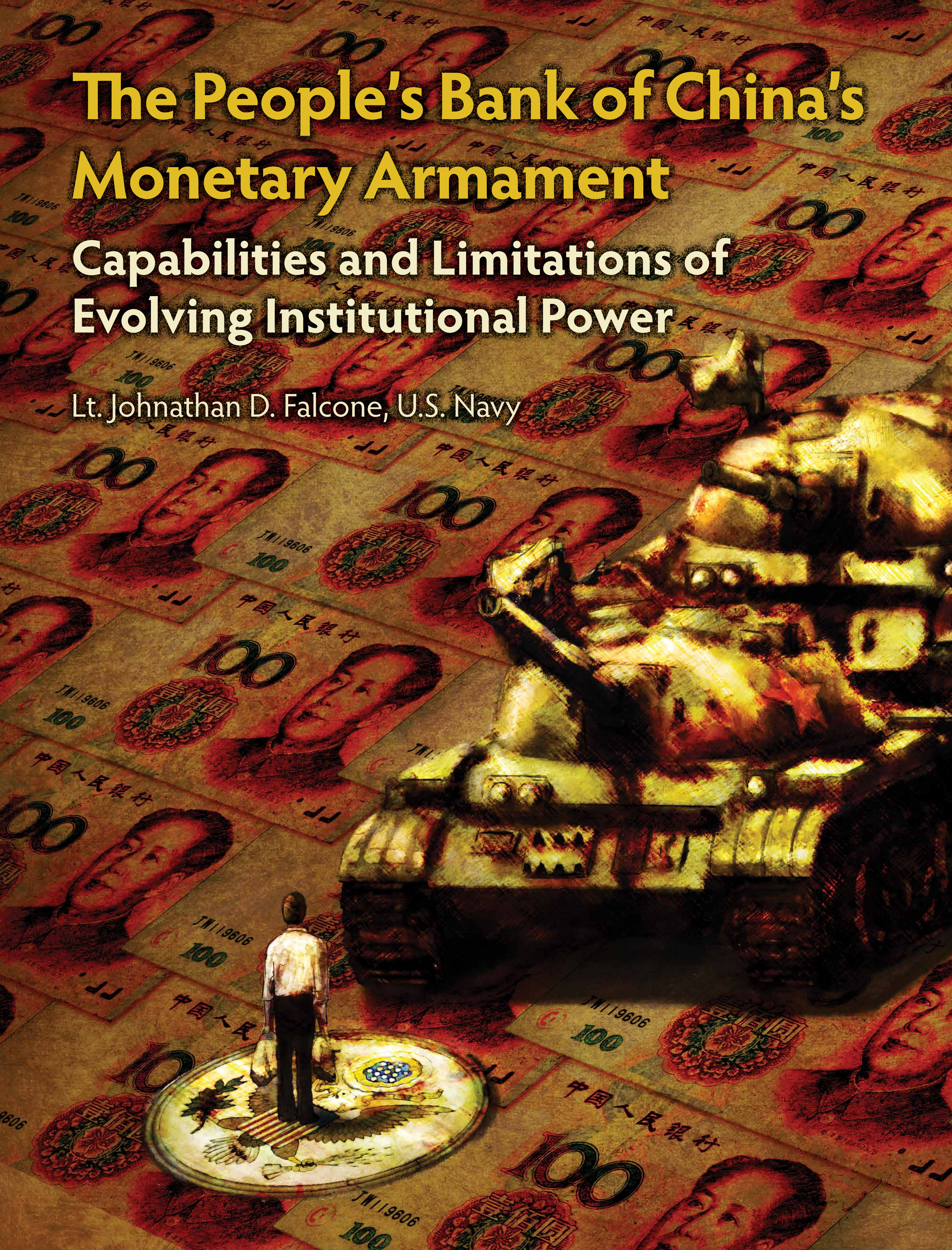

Graphic by Dale Cordes, Army University Press

Two nations, nearly seven thousand miles apart, are engaged in a great-power conflict. Many of the strategies that guide this conflict are undergoing development in the Pentagon, Arlington's five-cornered symbol of military might, and also in its counterpart headquarters found in Beijing's August 1st Building, a Sino-influenced yet Soviet-styled compound. However, arguably the most consequential strategic plans are being developed in the Eccles Federal Reserve Board Building in Washington, D.C., and in the People's Bank of China's Beijing headquarters. The economic front of the present U.S.-China conflict is being executed from these ill-recognized halls of national security policy. Although U.S. military leadership may be vaguely familiar with the consequences of American monetary policy on this conflict, the strategic potential of the monetary policy of China's central bank is largely unknown and much underappreciated. As a result, today's U.S. warfighters may not feel compelled to track Chinese capital flow rates with the same urgency with which they mine intelligence reports for the latest ballistic missile profiles. But given China's central banks institutional subordination to the Chinese Communist Party (CCP) and increasing international impact, its actions must be interpreted as an extension of CCP strategic objectives.

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Many may argue that the financial markets are not legitimate battlespaces, and that real war can only be defined as military "kinetic" conflict. Ironically, the same voices that may be willing to recognize cyber and information warfare as potent nonkinetic forms of conflict, and as new battlespaces, are reluctant to expand their conception of warlike conflict to the economic domain. However, if the consequences of a combatant's deliberate economic actions are comparable to the consequences of kinetic engagement (e.g., social destruction, political and economic collapse, and death), then why is it not equally of concern to a military who has sworn an oath to defend American values? One has to look no further than Ukraine or those countries that experienced the Arab Spring to recognize that economic conditions can undermine society's stability with real national security consequences. In this sense, economic actors have expanded the scope of international conflict to include institutions that can decisively affect economic conditions across borders to achieve the same kinds of political objectives formerly thought to reside exclusively in the domain of armed conflict.

The 2018 *National Defense Strategy* clearly alludes to this emerging warfare domain when it articulates the need for a "seamless integration of multiple elements of national power—diplomacy, information, economics, finance, intelligence, law enforcement, and military."[1] But in our nation's war colleges, where current and future military leaders engage intellectually with the principles of warfare, strategy is still strictly circumscribed by the theories of such classical military thinkers as Antoine-Henri Jomini and Carl von Clausewitz with little attention given to the impact of money in conflict as propounded by economic theorists such as Karl Marx and Robert Gilpin.

In stark contrast, America's strategic competitors including China have fostered a more inclusive understanding of strategic disciplines and warfare's domains. For example, in the highly influential book *Unrestricted Warfare*, published in the 1990s, People's Liberation Army (PLA) theorists Qiao Liang and Wang Xiangsui declared, "There is no longer any distinction between what is or is not the battlefield [to include] social spaces such as the military, politics, economics, culture, and the psyche."[2] Though decades old, this work nevertheless provides insight into the warfare principles that continue to guide the CCP and the PLA. Money flows, financial markets, and macroeconomic decisions have an impact beyond the domestic economy but are synchronized with other elements of national power to aggressively achieve international political objectives. In China, the primary forum for this centrally planned, economic line of attack is the Central Economic Work Conference.

Every December in Beijing, the unassuming Jingxi Hotel hosts CCP leadership and national economic

Black Audis, the vehicle of choice for senior party officials, drive up to the entrance of the Jingxi Hotel in western Beijing. Ordinary travelers have never been allowed past the forty-eight-year-old hotel's drab, Soviet-style exterior. The heavily guarded hotel is where the Communist Party elite meet to make high-stakes personnel decisions and map out future policies. (Photo from *South China Morning Post*)

experts for the Central Economic Work Conference. This annual meeting for party leaders, government officials, and economic policy makers provides a forum to discuss the national economic agenda for the following year. As the 2019 meeting approached, it became apparent that domestic economic growth and the internationalization of the Chinese currency would be the primary agenda items. CCP administrators vocally pushed for additional market-based reforms that previously drove the rise of China's economy. Concomitantly, planners found themselves battling multiple economic headwinds to include a slowing growth rate, a weakening yuan, and continuing trade fears with the United States.

These challenges and the potential economic actions required to overcome reforms intensified the spotlight on the People's Bank of China (PBOC), China's central bank. Historically, the bank was tasked to simply carry out strict credit plans and ensure its provincial branches could underwrite party-directed investment projects. Today, the bank is equipped with monetary policy tools similar to those of other developed nations; yet, it remains another opaque institution employed to achieve party objectives that have the ability to affect China's financial markets, strategic policy objectives, and markets around the world.[3]

Considering China's increasing capital account liberalization and participation in international financial markets, the role and global impact of the PBOC is on the rise. As far as the CCP exerts influence over the institution, PBOC monetary policy decisions are also a reflection of the party's near and long-term interests. From the perspective of U.S. military and political strategists, understanding the PBOC's monetary capabilities and limitations illuminates the strategic repercussions of China's actions in a way that is comparable to the value of tracking the development of more traditional military capabilities associated with great-power conflict. We will assess the institution's evolving role within the Chinese economy and the changes in its policy tool kit during the market liberalization era. The results of this analysis will show that the PBOC is sufficiently equipped to exert economic influence in international markets to achieve CCP strategic aims.

It is important to note that the lack of transparency from domestic Chinese institutions and the PBOC's recent policy shifts create a unique challenge to gather information related to this subject. First, the nature of the CCP and Chinese authoritarian regime underlies the general lack of transparency. Second, in 2017, major doctrinal changes took place to reflect lessons learned from the 2008 financial crisis.[4] The relatively recent advent of these changes has limited the quantitative-based analytical literature available. As a result, most of the information presented is derived from PBOC reports and documents, PBOC-released policy papers, qualitative academic articles, and Western media analysis.

(Composite graphic by Arin Burgess, *Military Review*)

Evolving Battlespaces and Institutions of Conflict

The characteristics of war have been defined, debated, revised, and restructured for millennia. In 2013, Gen. Valery Gerasimov, chief of the Russian General Staff, published an article in the Russian newspaper *Military-Industrial Courier* that articulated his understanding of modern warfare. In the article, Gerasimov notes that "the very 'rules of war' have changed. The role of non-military means of achieving political and strategic goals has grown, and, in many cases, has exceeded the power of force of weapons in their effectiveness."[5] In March 2019, Gerasimov again alluded to the interdisciplinary nature of military strategy referencing "the emergence of new spheres of confrontation in modern conflicts, the methods of struggle and increasingly shifting towards the integrated application of political, economic, informational and other non-military measures."[6] *Unrestricted Warfare* presaged these sentiments. It proposed a "paradox of weapons development" in that "the more weapons are invented, the smaller an individual weapon's role in war."[7] The book goes on to claim that because of this paradox, future weapons in warfare to achieve national aims will be outside the traditional military realm. These claims suggest that influential voices among America's primary competitors, as defined by the *National Defense Strategy*, do not view military capabilities as the sole means of achieving their objectives. Modern conflict, therefore, not only connotes conventional and irregular military action but also interdisciplinary battlespaces.

Chinese leadership learned from Russia's Soviet predecessors that empires can fall without direct hostile engagement. The Soviet Union's failures during the Cold War undoubtedly informed Gerasimov's perspective. Specifically, he alludes that the Soviet Union's inability to compete in other arenas led to its defeat, despite advanced and capable military technology. Chinese leadership appears to view its current strategic position vis-à-vis the United States as akin to the Soviet Union's Cold War. As such, they have internalized the Soviet Union's failures and are crafting strategy with this lesson in mind.[8] With a vague recognition that the cost to compete militarily with the United States may not be an effective strategy, China has sought "new concept weapons." These weapons include "all means which transcend the military realm, but which can still be used in combat operations. As [China] see[s] it, a single man-made stock-market crash, a single computer virus invasion … that results in a fluctuation in the enemy country's exchange rates … can be included in the ranks of new-concept weapons."[9] China's apparent desire to weaponize economic markets highlights the need for American planners to account for all potential institutions of conflict.

Professor Harry Harding, a political scientist specializing in Chinese foreign affairs, wrote that "since the 1970s, China has called for a new international economic order, in which commodity prices, capital flows, and terms of technology transfer would be adjusted in favor of the interests of the third world."[10] Successfully effecting such a change would require shifting the economic landscape from a great-ocean maritime-centric order to one characterized by Eurasian land and Indian Ocean trade routes. Throughout the 1970s, China took a hard stance to bring about this alternate economic sphere outside of the U.S.-led system. The reform period and increased economic integration moderated China's position and pushed CCP leadership, however unwillingly, to putatively operate within the present economic order. Despite its participation, Beijing remains a fierce critic of Washington's position in the international economic landscape. It has used forums such as the World Bank and vehicles such as the Asian Infrastructure Investment Bank to reveal its ultimate objective: to bring about a fundamental shift in the international financial system that favors its own interests and expansion of influence.[11] Today's PBOC operates at the frontline to achieve that ultimate objective.

Like many other central banks in the world, the PBOC is tasked to "formulate and implement monetary policies" in an effort to "maintain financial stability."[12] Specifically, monetary policy is employed to stabilize "the value of the currency and thereby promote economic growth."[13] Simply put, the bank's policies aim to control the credit environment—the risk associated with money lending—and the money supply—the amount of money available for lending and commercial transactions. Although these policies may appear to be aimed at domestic-focused outcomes,

monetary policy actions have ripple effects abroad and impact overseas commodity prices, credit availability, and capital market access. As China's economic influence and capacity grows, this reach suggests that Chinese monetary policy makers have become increasingly powerful international actors. The institution's primary constraint is its subordination to the CCP by means of the State Council. In other words, the party exercises control over the central bank.

As per the "Law of the People's Republic of China on the People's Bank of China" (Law of the PBOC), the State Council—the executive branch of the Central People's Government—holds authority over the PBOC. This means that the PBOC, unlike most other central banks in the world, is not an independent agency. The Law of the PBOC states that the State Council must approve most major decisions.[14] This governance structure naturally tethers monetary policy to the party's political objectives.

The People's Actual Bank

Throughout the Maoist era, the PBOC was the primary financial intermediary in China. The institution was responsible for both central and commercial banking, and clientele ranged from regular citizens to state-owned enterprises (SOEs) to the government itself. This meant that not only did the PBOC apply what could only be described as rudimentary monetary policy, but it accepted household deposits as well. Above all, acting in its capacity as a central bank within a planned economy, the PBOC kept strict control over the money supply by limiting the amount of loans it underwrote.[15]

When the central government demanded that its banking sector do more than tightly control the money supply, the first set of banking reforms were directly aimed at encouraging economic growth. The banking landscape transformed, and the impacts of this transformation are still seen today. First, the PBOC was separated from the Ministry of Finance in 1976.[16] Then, starting in 1979, commercial banking operations were distributed among the "Big Four" state-owned banks in China: the Agricultural Bank of China was split from the PBOC to provide government financing for rural development; the Bank of China managed the state's foreign currency portfolio and became the primary foreign financing channel; next, in 1984, the Industrial and Commercial Bank of China became the financier of China's SOEs; and finally, the China Construction Bank, formerly a separate arm in the Ministry of Finance, became operationally independent but continued to provide loans to long-term state investment projects.[17] As these commercial operations rolled out of the PBOC and Ministry of Finance, a pattern began to develop. As markets reformed and opened up, economic growth was fueled by monetary policy aimed at increasing the monetary base and access to credit.

Despite these institutional reforms, central planners continued to conduct control over the money supply through "direct credit control" and apply quantitative-based measures rather than market-based measures. Specifically, these measures dictated the amount of financing that was available at the national, provincial, and sectoral levels. This type of control enabled planners to support growth in predetermined regions and business sectors. More than just control the amount of financing available, planners—by way of the PBOC—also dictated the allocation of financing between working capital and fixed-asset investments.[18] Annually, the State Council would codify these financing determinations in a "national credit plan." At that time, this rather blunt policy measure represented the sharpest monetary tool granted to the PBOC.

In 1995, banking operations underwent reform as a result of a rapidly expanding monetary base and inflationary pressures.[19] By 1998, credit ceilings were phased out and an indirect management framework was established. At this point, the central bank began to apply monetary instruments to manage base money and credit to achieve intermediate goals and ultimately policy objectives.[20]

Party Control of the Central Bank

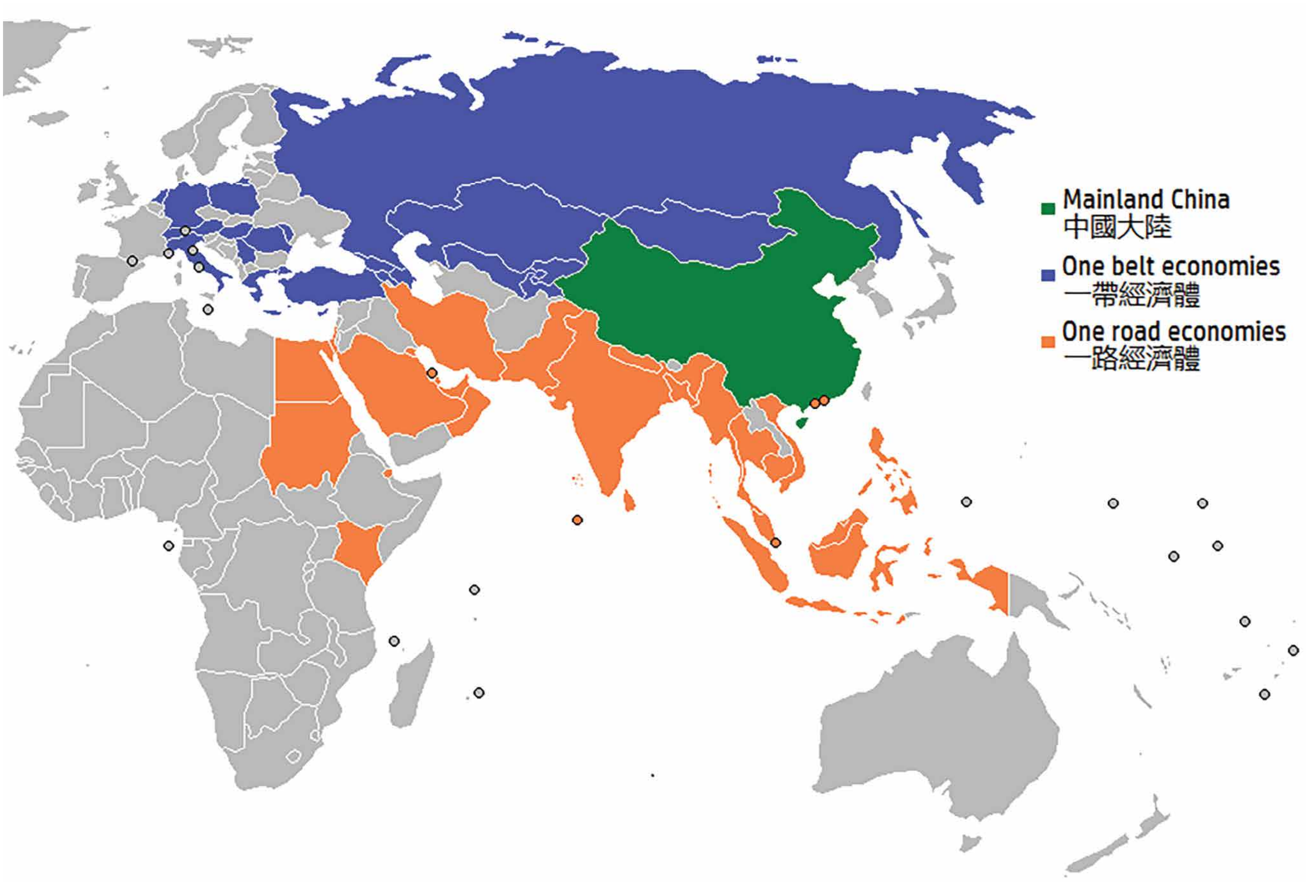
Though somewhat liberalized to provide additional flexibility in terms of bank administration, the PBOC still does not have the freedom to employ monetary strategies outside the purview of government and party leadership. So how is this relationship defined? In 1995, when the PBOC was codified in law, article 5 of the Law of the PBOC states,

> The People's Bank of China shall report its decisions to the State Council for approval concerning the annual money supply, interest rate, foreign exchange rates and other important matters specified by the State Council before they are implemented.[21]

A photo of the People's Bank of China headquarters taken 4 November 2016 in Beijing. (Photo by Max12Max via Wikimedia Commons)

The State Council consists of thirty-five members and is chaired by the premier. The premier is also the second-highest ranking member of the Politburo Standing Committee, subordinate only to the Party General Secretary. Although the PBOC administratively sits in the Chinese government, guidance and influence still originates from the CCP. In fact, the PBOC 2017 Annual Report acknowledges that PBOC actions were "under the leadership of the CPC Central Committee and the State Council."[22] This influence manifests itself in the bank's policy decision-making process, as described by Professor Yiping Huang of Peking University and former member of the Monetary Policy Committee at the PBOC.[23] Most likely, this process begins with the State Council deciding upon key economic policy objectives. Then, the PBOC will follow up with proposed monetary actions to achieve these targets, and finally the State Council will approve or veto this proposal.

Professor Victor Shih, University of California San Diego, adds that "despite the establishment of institutions that resemble those seen in a Western banking system, administrative decrees rather than monetary instruments … still played the dominant role in controlling the money supply."[24] These "decrees" are aimed at achieving economic policy objectives, which include rapid economic growth, a stable currency, and a balanced external account. In the Chinese view, pursuing these objectives has been fundamental to their growth and development. Given the stakes, it is likely that Chinese leadership will continue to exercise political control over the central bank as they perceive it to be imperative to achieving national goals.[25]



(Original figure by Xxjkingdom, modified by Tart via Wikimedia Commons, 9 July 2016)

One Belt, One Road Economies

Exploiting the U.S.-Led Financial System

Today, the PBOC—much like all other institutions in China—focuses on implementing "Xi Jinping Thought on Socialism with Chinese Characteristics for a New Era" (or Xi Jinping Thought).[26] As it impacts economic policy practice, this thought has called for the application of a "double-pillar framework combining monetary and macro-prudential policy."[27] Similar to past objectives of the PBOC, the focus of monetary policy is liquidity in the banking system. But many analysts are now trying to understand this new buzzword, "macro-prudential policy," and what it means for the economy.

The Macro Prudential Assessment (MPA) framework was introduced during the 19th National Congress of the CCP and describes PBOC operations today. It represents China's attempt to balance market reforms and capital liberalization with the exposure to systemic risks that participating in the global economy entails.[28] Fundamentally, Chinese officials are asking how China continues to open up its economy while hedging against uncertainties in the global marketplace.[29] In more direct strategic terms, how China can lean on the structures held in place by the U.S.-led financial system for its present benefit, minimize exposure to risk, and pursue its structural economic objectives. To answer these questions, the MPA framework directly contradicts economic dogma that has been held in place by the U.S.-led system: the policy trilemma, or impossible trinity.

The impossible trinity is a concept in international economics that an economy cannot simultaneously maintain the following three policies: a fixed foreign exchange rate, free capital flows, and an independent monetary policy. In theory, countries choose two of the aforementioned characteristics but cannot apply all three and maintain economic stability.

For example, an analysis of a country that chooses to have free capital flows and a fixed foreign exchange rate could be useful. According to the impossible trinity, this country has surrendered its ability to conduct independent monetary policy. We see this is true if we consider what would happen if such a country faced inflationary pressures and raised interest rates. An increase in national interest rates would draw investors to purchase the currency because of its higher yielding returns. The increased demand would place appreciation pressures on the fixed currency. Although policy makers could conduct open-market operations or sell foreign exchange reserves to ease this pressure, eventually policy makers would have to give in and allow the currency to appreciate. If they do not, domestic prices would rise, goods would become more expensive relative to the rest of the world, and domestic economic performance would be hampered. When policy makers give way to the pressures created by their independent monetary policy, exchange rate stability will be lost, illustrating the trinity in action.

(Figure by Laurence Chu, Agence France-Presse. Data from Google Finance as of 6 August 2019)

U.S. Dollar Exchange Rate versus Chinese Offshore Yuan, 2014–2019

Three types of policy regimes are born from these compromises:

Free float system. If a central bank wishes to have an independent monetary policy and capital flows (as in the United States), then it cannot have a fixed foreign exchange rate.

Monetary standard. The Eurozone is an example of a group of countries that maintain a fixed, single currency and have free capital flows, but each state is beholden to the standardized monetary policy decided upon by the European Central Bank.

Capital controls system. This system attempts to maintain control over the exchange rate and have monetary autonomy. This is the regime type that the PBOC is currently battling by controlling the amount of capital flows into and out of the Chinese economy. China's "double-pillar" framework, comprised of macro-prudential and monetary policy as described by Xi Jinping Thought, is an attempt to maneuver around the "impossible."

China's central bank has pushed back against this trilemma—typically depicted as an equilateral triangle with equal consideration given to free capital flows, floating exchange rates, and independent policy. Instead, policy strategists at the bank believe that balancing monetary policy making against a "scalene trinity"—placing greater emphasis on cross-border capital flows—would promote greater stability. In other words, China is choosing not to commit to two of the aforementioned factors as a true free-market participant and would rather implement a dynamic policy that observes and reacts to global conditions.[30] Concretely, it suggests that Chinese policy makers believe that if a country institutes no capital controls (free capital flow), "it could only achieve relatively stable exchange rate and relatively independent monetary policy" because it is impacted by the decision-making of other international players.[31]

China's MPA framework accounts for this reality, and theoretically, has devised a monetary model that can optimize the amount of capital flows, reacting as needed to global market conditions. Party leadership believes that the "double-pillar" framework enables China's financial system to liberalize while protecting its domestic economy from shock.

Undoubtedly, if this alternative monetary model were to succeed, the PBOC will have achieved a true operational success. However, the opportunity for success takes advantage of the U.S.-led, rules-based financial system. Unlike the U.S. dollar, the yuan does not currently impact worldwide flows at the systemic level. It is neither a major reserve currency nor considered a global currency. As such, China can engage in this capital controls experimentation with minimal consequences. If unsuccessful, the CCP and the PBOC can reinstate capital flow restrictions and hedge against any detrimental domestic effects. If successful, the

Economic Warfare in a Nutshell

As a condition for admission to the International Monetary Fund and the World Trade Organization, prospective members agree not to artificially manipulate their national currencies in order to gain an unfair trade advantage in world markets. This is a commitment that China has regularly ignored since admission to those organizations. In order to lower the cost of China's products sold overseas, The Bank of China, which is an appendage of the People's Liberation Army and government, has periodically weakened the value of its currency artificially as an expedient measure to gain trade advantages. The graphic on page 77 highlights that throughout 2019, in response to U.S. efforts to hold China accountable to past trade agreements as well as force compliance with other agreements such as not providing state sponsorship to industrial espionage, it artificially lowered the value of the yuan (basic Chinese unit of money) to make it equate to more than seven yuan to the U.S. dollar making Chinese products much cheaper in the global market. (Graphic by Arin Burgess, *Military Review*)

Chinese monetary model may offer an alternative for developing countries to follow. This may result in an increase in the yuan's global prominence, bolster China's position in international institutions, and undermine U.S. economic influence among developing countries. The irony is that without the present-day stability that the United States affords, the PBOC would be unable to engage in such experimentation. As described in previous sections, the PBOC does not execute monetary policy as an independent institution. Rather, CCP leadership oversees it to support the party's strategic objectives. In turn, its policies drive to achieve the shift in the international economic order that China has desired since the 1970s.

Inside the Monetary Armory

Domestically, the PBOC aims to manage the growth of the money supply and credit to produce conditions that are conducive to "high-quality economic growth."[32] To achieve influence and prosperity through international markets, the PBOC ensures the exchange rate and capital flows promote stability in trade and foreign investment.[33] The bank's website lists the available monetary tools to achieve these objectives. These monetary policy instruments "include reserve requirement ratio, central bank base interest rate, rediscounting, central bank lending, open market operation, and other policy instruments specified by the State Council."[34] Some of these are applied more than others, but they all work in concert to target liquidity, credit, and flows in the system.

Reserve requirement ratio. The reserve requirement ratio (RRR) is the least complicated and most blunt instrument available to the bank. This ratio dictates the amount of deposits that banks must hold relative to their loans outstanding.[35] Through the money multiplier effect, a lower ratio would expand the state's money supply and a higher ratio would reduce it. If the RRR was lowered, liquidity increases because commercial banks have to hold less money in reserves and can lend this to people or businesses. The CPC and the PBOC may want to encourage more lending to combat slowing growth or to make more money available for state-sponsored projects. The PBOC is able to affect this ratio for all financial institutions or for a targeted group.

China's Belt and Road Initiative (BRI) is an infrastructure project aimed at establishing a new "silk road" across the Eurasian landmass. According to the Council on Foreign Relations, "the vast collection of development and investment initiatives significantly expand[s] China's economic and political influence."[36] The United States and other Asian nations have expressed fear "that the BRI could be a Trojan horse for China-led regional development and military expansion."[37] At a minimum, the fundraising and development of these trade routes helps to increase the use of yuan globally.

Unlike the United States, commercial banking in China is dominated by the "Big Four" state-owned banks established during earlier reforms. To finance the BRI, China's SOEs have turned to these state-owned banks for the bulk of their financing.[38] This creates the opportunity to deploy banking tools such as the RRR to help finance these strategic projects. If party officials determine that they want to fund more BRI projects, the PBOC policy makers could be directed to lower the RRR to increase the amount of money available, thus enabling the state-owned banks to lend to SOEs to complete BRI-related projects. Since 2018, the RRR has been cut eight times, and the January 2020 cut released $115 billion into the economy.[39]

The most infamous BRI project was the Hambantota Port Development Project in Sri Lanka that was financed by China's Export Import Bank, a policy bank subordinated to the State Council. This port is strategically located at the southern end of Sri Lanka with access to the Indian Ocean. Although other lenders refused to fund the project citing financial viability concerns, China was willing to provide the loans necessary to complete it. The project, as expected, was a commercial failure, and Sri Lanka could not make its debt payments. As a result of a negotiated deal, China now owns the port and fifteen thousand acres of surrounding land for the next ninety-nine years.[40] Currently, Beijing touts additional large development projects in developing countries such as the Maldives and Djibouti, whose outstanding debt owed to China stands at 30 percent and 80 percent of their national GDPs, respectively.[41]

Central bank loan prime rate and other lending rates. Starting in August 2019, the PBOC announced the loan prime rate (LPR) formation mechanism "to deepen reform to strengthen the market's role in setting interest rates, raise the efficiency of interest rate transmission and lower financing costs."[42] This rate is set by state-owned banks, rural banks, and foreign-funded banks in a manner similar to other interbank rates. Although this may give the appearance of greater market exposure, banks must submit LPR quotations within a few basis points of the medium-term lending facility (MLF), which is set by the PBOC. In reality, the LPR acts as coordinated guidance to lenders, serving as the primary reference for bank loans and a pricing benchmark for floating-rate contracts.

In addition to the LPR, the PBOC affects facility instruments that have an impact on rates system-wide. These forms of central bank lending include the standing lending facility, MLF, and pledged lending facility. The primary difference between them is time-to-maturity. The standing lending facility is meant to meet the temporary liquidity demands of commercial institutions, similar to the Federal Reserve's discount window, with overnight, seven-day, or one-month maturities. The MLF aims to provide base money to commercial or policy banks. These three-month to one-year facilities help adjust medium-term funding costs of financial institutions and in turn the real economy. Finally, the pledged lending facility is a long-term lending instrument that provides large amounts of financing to support key economic areas and prop up laggards.[43]

Whereas the Federal Reserve interest rate (colloquially, the Fed Rate) is the primary monetary tool in the U.S. armament, this is not the case in China. As just one tool available to the PBOC, adjustments to China's LPR may not connote the same message that an equivalent change in the Fed Rate might. Changes in the Fed Rate may be applied to spur or cool down investment both domestically and internationally. However, because the LPR and other facilities are just one tool available to the PBOC, smaller changes can be made in a more-targeted attempt to encourage small business lending or to affect the exchange rate.

As opposed to the more offensive-minded example in the previous section, rate changes can contribute to an effective defensive economic posture. Consider today's trade tensions. Among the challenges in the U.S.-China trade relationship, one of the most relevant to this discussion is intellectual property theft in key future industries that includes robotics and satellite communications and imagery.[44] In an effort to effect behavioral change, President Donald Trump's administration implemented tariffs on billions of dollars' worth of Chinese goods during trade negotiations. Through changes in the LPR and other rates, Beijing can attempt to offset the impact of American tariffs. For example, if the PBOC lowered the LPR, investors would seek higher interest-bearing instruments elsewhere, which would weaken the yuan relative to other currencies. If the yuan is weaker, Chinese goods become relatively cheaper to the outside world, creating favorable conditions for Chinese exporters. Additionally, the PBOC has the ability to offer targeted preferential rates to affected companies to create favorable internal lending conditions for these domestic businesses. In total, the LPR and other facility rates offer a mechanism to evade the tariffs' effects meant to deter China's economic espionage.

Open market operations. Open market operations (OMO) consist of short-term collateralized loans and borrowing. These operations are conducted via repurchase, sometimes called "repo," or reverse repo agreements to adjust reserve money supply. Repurchases are when the PBOC sells short-term bonds, removing liquidity from the market. Reverse repos do the opposite, adding liquidity to the market through the purchase of short-term bonds from commercial banks. Whereas changes to the RRR are considered blunt actions, OMO is more precise and has an impact on a shorter time horizon. Currently, the seven-day reverse repo is the most frequently used in practice. These operations have a direct and immediate impact on the interbank liquidity conditions and are conducted on a near daily basis.[45]

Through the first two months of 2020, the PBOC has conducted reverse repo operations on eleven different dates injecting over $5.5 trillion worth of yuan into the Chinese economy.[46] The U.S. Federal Reserve also conducts OMO, but these sales and purchases are directly aimed at maintaining the Fed Rate, which has been set. In China, the LPR and OMO are independent monetary functions. As such, when analyzing PBOC actions, it is necessary to observe changes across the toolkit and consider their net effects. In other words, what may appear to be only a moderate change in one instrument might be coupled with a large change in another, significantly impacting any analysis. OMO tends to be that auxiliary monetary tool that amplifies modest changes elsewhere.

In the past, the PBOC conducted OMO only twice per week. Today, OMO can occur daily.[47] This encourages us to ask why the PBOC needs to conduct these more frequently. Some suggestions are related to China's increased capital outflows, market interventions to stabilize the yuan, and consistent attempts to internationalize the currency.[48] Capital outflows, when domestic Chinese money goes out to foreign markets while inflows are restricted, causes China's money supply to shrink. Similarly, as the PBOC attempts to stabilize the yuan against inflationary pressures, the central bank will sell dollars from its foreign exchange reserves and buy yuan. Again, this action shrinks the money supply. Without compensating action to increase liquidity, credit markets would be impacted, and domestic growth could be stifled. From China's perspective, appropriately managing capital outflows and stabilizing its exchange rates without disrupting the domestic economy is critical to the CCP's long-term objective to increase the yuan's global role. OMO is the most-targeted monetary instrument to accomplish this.

The aforementioned policy tools form the crux of the PBOC's monetary tool kit. The examples illustrate some of the direct impacts that these tools have on financial markets in an effort to undermine or directly strike against the U.S.-led financial order. Predatory lending practices in developing countries undermine the role of Western development banks and grant China access to militarily strategic ports and regions. Currency manipulation enables Beijing to evade consequences of its actions and limits the effectiveness of American economic diplomacy efforts. Market liberalization reforms that take advantage of the opportunities offered by the world's open markets while limiting access to Chinese markets lean on the rules-based system to introduce fractures in the world economy for China's great power benefit.

The derivative effects of simultaneously taking advantage of and undermining free market principles, which helped propel China to the world's second largest economy, must be acknowledged as well. Chinese sovereign wealth funds, funded by the excess foreign exchange reserves built largely through admittance to the World Trade Organization, act as vehicles to capture access to U.S. technology and intellectual property.[49] The development and funding of the Asian Infrastructure Investment Bank challenge the World Bank's role in China's near-abroad.[50] Closer to the U.S. home front, preferential financial terms granted to Chinese "national champions" in the steel industry have incentivized overproduction and have impacted American manufacturing jobs and steel prices.[51] Real estate purchases by wealthy Chinese citizens, totaling over $30 billion in 2018, have distorted housing prices in many American communities.[52] Finally, the Chinese Ministry of Education currently funds eighty-six Confucius Institutes at U.S. colleges to "teach Chinese language and promote culture," a critical soft power tool.[53]

In total, the PBOC's monetary armament has demonstrated the capacity to "weaponize" policy, funding, and economic power across multiple domains. Effectively translating this information into intelligence requires American strategists to look at the sum total of China's economic actions as opposed to evaluating individual policy pursuits. It would be a challenging and foolhardy exercise to analyze PBOC actions in isolation. Further complicating this analysis, the PBOC has historically used multiple monetary instruments to affect single policy objectives. However, context provided by CCP statements, the international financial environment, and regional economic aims may help

Among many economic initiatives, China is developing a Beijing-based cryptocurrency system that it hopes will undermine and replace the current global monetary system that is based on the U.S. dollar. (Graphic elements courtesy of Freepik, www.freepik.com; composite graphic by Arin Burgess, *Military Review*) transform seemingly innocuous monetary policy action into insights on larger strategic visions.

Strategic Outlook

The international financial system is characterized by economic actors and institutions that facilitate capital flows and global trade. Ostensibly leading and regulating this system are institutions such as the International Monetary Fund, the World Bank, and the World Trade Organization. In reality, however, the U.S. Federal Reserve and its monetary policy decisions wield awesome authority in this arena. The U.S. dollar's role as "a key marker in exchange rate regimes and as an essential reserve currency" has elevated the United States' ability to exert its influence and protect its national security interests through financial markets.[54] Fundamental to the dollar's power is its role and hegemony over oil markets.[55]

After past failed attempts, China successfully launched a crude oil futures contract (colloquially termed the petroyuan). It was introduced on the Shanghai International Energy Exchange in March 2018, and it appears that international traders have been receptive to the instrument.[56] In Singapore and Dubai, the petroyuan's trading volume has surpassed dollar-denominated oil futures.[57] For now, this trade volume remains well below Brent and the West Texas Intermediate crude futures, but it does signal traction in China's efforts to compete in dollar-denominated and dominated oil markets.

The natural result of increasingly traded yuan-denominated oil futures is the further internationalization of the yuan and a rising challenge to the dollar-denominated economic order. A more globally traded yuan would give China more control over its economy and the economies in its near-abroad. Today, the dollar's near-hegemonic status allows it to serve as the world's global currency. As such, many of China's exports are priced in U.S. dollar contracts, and its offshore investment funds are raised in dollars. But if Beijing is successful in making the yuan a global currency through efforts such as the petroyuan, it would offer an even greater economic boost to the world's second-largest economy. Transaction costs for Chinese businesses would be cut, China's economic influence relative to the United States would increase, and Beijing would be empowered and better equipped to offer an alternative to the international financial system currently grounded in U.S. and Western rules. To this end, tracking and identifying PBOC monetary policy initiatives that impact capital flows—making the yuan more attractive to investors, growing use in commodity markets, or increasing the amount of trade denominated in yuan—all indicate China's intention to undermine the current financial system over time.

> "To preserve America's power, it is strategically necessary for the United States and Federal Reserve to maintain influence over the international financial system."

Fortunately, this is not a simple undertaking. For instance, let us examine a scenario where the CCP directs the PBOC to make the yuan more attractive to foreign investors. To accomplish this, the PBOC must decrease the money supply to create an appreciation of the exchange rate. The specific monetary policy tools employed would be a higher reserve requirement ratio or open market repurchases. At first, the currency would become more attractive and appreciate, resulting in a positive capital flow. Then, due to an appreciating currency, exports will become relatively expensive to foreign consumers and could adversely impact the domestic economy, requiring more action to counter these policies. Constant manipulation by the PBOC, however, will have unintended market consequences outside of the CCP's control. Namely, yuan instability in exchange markets will weaken investor confidence. This weakening will subvert the CCP and the PBOC's larger ambitions to internationalize the yuan, despite their intentions to the contrary.

Another factor in the United States' favor is that, for now, the Chinese yuan is not in a position to be a viable alternative to the dollar. First, the yuan sits sixth among global currency reserves, comprising only about 2 percent of global reserves.[58] Second, Chinese domestic markets are "not deep or liquid enough to absorb vast global flows."[59] In order for the yuan to become a global currency, the PBOC and Chinese system would have to undergo much greater market and governance reforms. At the same time, the United States continues to be considered the world's strongest economy. Ninety percent of foreign exchange trading involves the dollar, nearly 40 percent of the world's debt is dollar denominated, and one-third of global GDP is generated by countries with currencies fixed to the dollar.[60] As such, an effort by the Chinese to use monetary policy to bifurcate the world financial system, one overseen in part by the United States and the other overseen by China, in a single economic assault would be severely limited by the world's entrenchment in the U.S.-led system. More likely, China will tactically and operationally employ the totality of its monetary armament over a long time period to gradually shift the international economic center of gravity.

Conclusion

To conclude, the battlespace in modern warfare has expanded to the economic domain. In order to preserve America's power, it is strategically necessary for the United States and the Federal Reserve to maintain influence over the international financial system. Further, as suggested by this article, minding the PBOC's actions relative to sustaining or undermining the international economic system's structure may signal the CCP's intentions to apply monetary policy for strategic purposes. For the moment, it is likely that America will continue to be in control. Maintaining this in the long term will require forward-leaning action on the international scene. To accomplish this, the United States must be the leading proponent of open markets and fair trade practices, and it must foster existing and new trade relationships. Retracting, or even the appearance of stepping back, from the global marketplace would yield space for alternative leadership to emerge. Military leadership must be ready to define their operations to support these strategic necessities. To be capable of developing operations in these terms, rising and current leaders must be versed in the tenants of economic warfare. PLA commanders have written that the new concept of weapons will cause ordinary people and military men alike to be greatly astonished at the fact that commonplace things that are close to them can also become weapons with which to engage in war. They believe that some morning people will awake to discover with surprise that quite a few gentle and kind things have begun to have offensive and lethal characteristics.[61]

If states in the global market believe that America is no longer providing economic leadership, the same structures that have established and financed America's power may be weaponized against it. Next December's Central Economic Work Conference could be used by the CCP and the PBOC to plan and cultivate the economic relationships to launch and sustain an alternative financial channel. Without a shot fired, America could wake up to a system that is corrosive to its economic, social, and political way of life. ■

Notes

1. Department of Defense, *Summary of the 2018 National Defense Strategy of the United States of America: Sharpening the American Military's Competitive Edge* (Washington, DC: U.S. Government Publishing Office, 2018), 4.

2. Qiao Liang and Wang Xiangsui, *Unrestricted Warfare: China's Master Plan to Destroy America* (Beijing: PLA Literature and Arts Publishing House, 1999), 206.

3. Michael McMahon, Alfred Schipke, and Xiang Li, "China's Monetary Policy Communication: Frameworks, Impact, and Recommendations," Working Paper No. 18/244 (Washington, DC: International Monetary Fund Asia and Pacific Department, 16 November 2018), 3.

4. *Bank of China Annual Report 2017* (Beijing: The People's Bank of China [PBOC], 29 March 2018), 28.

5. Valery Gerasimov, "The Value of Science Is in Foresight: New Challenges Require Rethinking the Forms and Methods of Warfare," *Voenno-Promyshlennyi Kurier* (Military-industrial courier), 27 February 2013.

6. Anastasia Sviridova, "Vectors of the Development of Military Strategy," Красная Звезда [Red star], 4 March 2019, accessed 24 March 2020, http://redstar.ru/vektory-razvitiya-voennoj-strategii/.

7. Liang and Xiangsui, *Unrestricted Warfare*, 16.

8. Ibid., 23.

9. Ibid., 25.

10. Harry Harding, *A Fragile Relationship: The United States and China since 1972* (Washington, DC: Brookings Institution, 1992), 338.

11. Reuters, "China Says AIIB Will Have Better Understanding of Developing World's Needs Than Other International

Development Banks," *South China Morning Post* (website), 20 July 2018, accessed 24 March 2020, https://www.scmp.com/news/china/policies-politics/article/1981780/china-says-aiib-will-have-better-understanding. When discussing the AIIB, Finance Minister Lou Jiwei's statements position the Asian Infrastructure Investment Bank (AIIB) as a competitor to other multilateral banks. For example, he has stated that "compared with the Asian Development Bank, World Bank and other multilateral development banks, the AIIB's advantage lies in its keener understanding of the successful experience and lessons of developing countries' years of development." Further, he challenges the West's development expertise stating, "I will not agree to anything which could be considered international best practice unless this kind best practice incorporates the development experience of China and many countries in Asia and elsewhere over the last three or four decades."

12. Law of the People's Republic of China on the People's Bank of China (promulgated by the National People's Congress, 31 October 2006, effective 1 January 2007), chap. 1, art. 2.

13. Ibid., chap. 1, art. 2 and 3.

14. Gregory T. Chin, "Understanding Currency Policy and Central Banking in China," *Journal of Asian Studies* 72, no. 3 (August 2013): 527, https://doi.org/10.1017/S002191181300051X. By contrast, the U.S. Federal Reserve decisions need not be approved by any political body.

15. Victor C. Shih, *Factions and Finance in China: Elite Conflict and Inflation* (New York: Cambridge University Press, 2008), 30–45.

16. Chin, "Understanding Currency Policy and Central Banking in China," 527.

17. Shih, *Factions and Finance in China*, 37.

18. Ibid., 33.

19. Ibid., 36. These inflationary pressures were caused by "relending" practices. Relending was the result of political pressures at the central and local levels. Relending was simply a longer-term loan from the central or local branches of the PBOC to commercial banks to inject the liquidity necessary to meet reserve requirements. This practice was made worse by the multilevel nature of the political pressure. Political reactions at the local level typically originated from central political pressure. As a result, both local and central PBOC branches were relending, rapidly expanding the monetary base.

20. Sarah Chan, "Understanding China's Monetary Policy: An Institutional Perspective," *Post-Communist Economies* 31, no. 1 (2019): 3–4, https://doi.org/10.1080/14631377.2018.1505695.

21. Law of the People's Republic of China on the People's Bank of China, chap. 1, art. 5.

22. *Bank of China Annual Report 2017*, 25.

23. Yiping Huang and Tingting Ge, "Assessing China's Financial Reform: Changing Roles of the Repressive Financial Policies," Cato Institute, 5 March 2019, accessed 24 March 2020, https://www.cato.org/cato-journal/winter-2019/assessing-chinas-financial-reform-changing-roles-repressive-financial.

24. Shih, *Factions and Finance in China*, 32.

25. Chin, "Understanding Currency Policy and Central Banking in China," 528. Development goals may include "objectives such as regional and sectoral redistribution, rapid growth, industrial modernization, and employment creation."

26. Xiang Bo, "Backgrounder: Xi Jinping Thought on Socialism with Chinese Characteristics for a New Era," Xinhua News, 17 March 2018, accessed 3 April 2020, http://www.xinhuanet.com/english/2018-03/17/c_137046261.htm.

27. Liansheng Zheng, "The Macro Prudential Assessment Framework of China: Background, Evaluation and Current and Future Policy," CIGI Paper No. 164 (Waterloo, Canada: Centre for International Governance Innovation [CIGI], 7 March 2018), 1, accessed 24 March 2020, https://www.cigionline.org/sites/default/files/documents/Paper%20no164web_0.pdf.

28. *Bank of China Annual Report 2017*, 28.

29. Ibid., 1. Chinese officials frame this as competing demands "for international regulation cooperation and the domestic demand to deal with potential systemic risks."

30. Guofeng Sun and Wenzhe Li, "Monetary Policy, Exchange Rate and Capital Flow–From 'Equilateral Triangle' to 'Scalene Triangle,'" The People's Bank of China Working Paper Series No. 2017/3 (30 March 2017), 2–3, https://dx.doi.org/10.2139/ssrn.2949307. These insights were inspired by the 2008 global financial crisis and quantitative easing regimes that took root in response.

31. Ibid., 3–4.

32. "Financial Sector to Adhere to Serving the Real Economy for the Accomplishment of Economic and Social Development Goals," The People's Bank of China press release, last updated 20 March 2020, accessed 24 March 2020, http://www.pbc.gov.cn/en/3688110/3688172/3982741/index.html.

33. Ibid.

34. "Monetary Policy Instruments," The People's Bank of China, accessed 24 March 2020, http://www.pbc.gov.cn/english/130727/130870/index.html.

35. Yen Nee Lee, "China's Monetary Policy Is Complex and Shifting. Here's What You Need to Know," CNBC, last updated 7 October 2018, accessed 24 March 2020, https://www.cnbc.com/2018/08/06/china-monetary-policy-how-pboc-controls-money-supply-interest-rate.html.

36. Andrew Chatzky and James McBride, "China's Massive Belt and Road Initiative," Council on Foreign Relations, last updated 28 January 2020, accessed 24 March 2020, https://www.cfr.org/backgrounder/chinas-massive-belt-and-road-initiative.

37. Ibid.

38. "Financing and Funding for the Belt & Road Initiative," Belt and Road News, 17 May 2019, accessed 24 March 2020, https://www.beltandroad.news/2019/05/17/financing-and-funding-for-the-belt-road-initiative/.

39. A. Dreher et al., "Aid, China, and Growth: Evidence from a New Global Development Finance Dataset," AidData Working Paper #46 (Williamsburg, VA: AidData, 2017), accessed 24 March 2020, https://china.aiddata.org/projects/33256.

40. Maria Abi-habib, "How China Got Sri Lanka to Cough up a Port," *The New York Times* (website), 25 June 2018, accessed 24 March 2020, https://www.nytimes.com/2018/06/25/world/asia/china-sri-lanka-port.html.

41. "China Building 'International Network of Coercion through Predatory Economics': US," Economic Times, last updated 9 May 2019, accessed 24 March 2020, https://economictimes.indiatimes.com/news/international/business/china-building-international-network-of-coercion-through-predatory-economics-us/articleshow/69257396.cms.

42. "Announcement of the People's Bank of China No. 15 [2019]," The People's Bank of China, accessed 24 March 2020, http://www.pbc.gov.cn/en/3688229/3688335/3730276/3877490/index.html.

43. Lee, "China's Monetary Policy Is Complex and Shifting."

44. "How China's Economic Aggression Threatens the Technologies and Intellectual Property of the United States and the World" White House Office of Trade and Manufacturing Policy (Washington, DC: The White House, June 2018), 2, accessed 24 March

2020, https://www.whitehouse.gov/wp-content/uploads/2018/06/FINAL-China-Technology-Report-6.18.18-PDF.pdf.

45. Lee, "China's Monetary Policy Is Complex and Shifting."

46. Author's calculations based on "Open Market Operations," The People's Bank of China, accessed 24 March 2020, http://www.pbc.gov.cn/en/3688229/3688335/3730267/e8e68c6c/index1.html.

47. Gabriel Wildau, "Q&A: The People's Bank of China's Open Market Operations," *Financial Times* (website), 18 February 2016, accessed 24 March 2020, https://www.ft.com/content/d56a1a6c-d635-11e5-969e-9d801cf5e15b (subscription required).

48. Ibid.

49. "How China's Economic Aggression Threatens the Technologies and Intellectual Property of the United States and the World," 18–19.

50. Reuters, "China Says AIIB Will Have Better Understanding of Developing World's Needs than Other International Development Banks."

51. "How China's Economic Aggression Threatens the Technologies and Intellectual Property of the United States and the World," 1.

52. Jacob Passy, "The Chinese Purchase More U.S. Residential Real Estate than Buyers from Any Other Foreign Country, but Trump's Trade War May Change That," MarketWatch, 16 May 2019, accessed 24 March 2020, https://www.marketwatch.com/story/chinese-investors-buy-more-us-residential-real-estate-than-any-other-country-but-trumps-trade-war-could-soon-end-that-2019-05-15.

53. "About Confucius Institutes," Confucius Institute Headquarters (Hanban), accessed 24 March 2020, http://english.hanban.org/node_7716.htm; "How Many Confucius Institutes Are in the United States?," National Association of Scholars, 9 April 2018, accessed 24 March 2020, https://www.nas.org/blogs/article/how_many_confucius_institutes_are_in_the_united_states; Larry Diamond and Orville Schell, eds., *China's Influence and American Interests: Promoting Constructive Vigilance*, rev. ed. (Stanford, CA: Hoover Institution Press, 29 November 2018), accessed 24 March 2020, https://www.hoover.org/research/chinas-influence-american-interests-promoting-constructive-vigilance.

54. Sara Hsu, "The Almighty Dollar: Is US Dominance In the Oil Trade Waning as China Begins Using RMB for Payment?," *Forbes* (website), 5 April 2018, accessed 24 March 2020, https://www.forbes.com/sites/sarahsu/2018/04/05/the-almighty-dollar-is-us-dominance-in-the-oil-trade-waning-as-china-begins-using-rmb-for-payment/#37fbd030bc87.

55. John A. Mathews and Mark Selden, "China: The Emergence of the Petroyuan and the Challenge to US Dollar Hegemony," *The Asia-Pacific Journal* 16, no. 3 (2018): 1–12, accessed 24 March 2020, https://apjjf.org/-Mark-Selden--John-A--Mathews/5218/article.pdf.

56. Daniel Ren, "China's First Crude Oil Futures Contract to Start Trading March 26," *South China Morning Post* (website), 9 February 2018, https://www.scmp.com/business/commodities/article/2132765/chinas-long-heralded-crude-oil-futures-contract-start-trading.

57. John A. Mathews, "The Rise of China's Petroyuan: From Oil Futures to the World," *South China Morning Post* (website), 4 December 2018, accessed 24 March 2020, https://www.scmp.com/comment/article/2176256/chinas-petroyuan-going-global-and-gunning-us-dollar.

58. Karen Yeung, "China Yuan Gains as Reserve Asset but Still Well behind US Dollar," *South China Morning Post* (website), 2 October 2018, accessed 24 March 2020, https://www.scmp.com/business/money/wealth/article/2166652/chinas-yuan-more-popular-reserve-currency-despite-trade-war.

59. Christopher Smart, "The Future of the Dollar and Its Role in Financial Diplomacy," Carnegie Endowment for International Peace, 16 December 2018, accessed 24 March 2020, https://carnegieendowment.org/2018/12/16/future-of-dollar-and-its-role-in-financial-diplomacy-pub-77986; Hsu, "The Almighty Dollar." For comparison, the euro–the second-largest held reserve currency–comprises 20 percent and the yen is 4.5 percent. These percentages matter because it reflects the amount of liquidity that exists in these markets. It should also be noted that although China's currency makes up a small percentage, its share has rapidly grown.

60. Kimberly Amadeo, "Why the U.S. Dollar Is the Global Currency," The Balance, last updated 13 December 2019, accessed 24 March 2020, https://www.thebalance.com/world-currency-3305931; Hsu, "The Almighty Dollar."

61. Liang and Xiangsui, *Unrestricted Warfare*, 26.