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World Bank Offers Timely, Dubious Praise for Belt and Road

By Matt Schrader

Beijing appears to be rethinking CCP General Secretary Xi Jinping's Belt and Road Initiative, an ambitious bid to reshape global trade by lending money for infrastructure projects in countries across Eurasia. The initiative has come under fire at home and abroad, with domestic critics wondering why the PRC, still only an upper-middle-income country itself, is lending vast sums internationally, while skeptics in the United States and elsewhere have noted that, in some cases, the PRC has lent countries more than they could ever hope to repay ([China Brief](#), August 10; [Times of India](#), June 27).

Beijing appears to appreciate the risk this criticism poses to the BRI. PRC domestic propaganda organs have begun to note the need for BRI investment to move in a more “high-quality” direction, while publicly available data suggests that the PRC dramatically scaled back its BRI lending during the past two years ([China Brief](#), August 10). Beijing has also begun to push back against external skepticism through a wide variety of channels. The World Bank recently came to Beijing's aid in this respect, publishing a report that strongly endorsed existing BRI investment. The report's conclusions, however, are based on highly dubious assumptions, and raise the question of whether the Bank's timely, unqualified endorsement was a form of “relationship management” with one of its most important shareholders.

Terms of Trade

The World Bank report was rolled out at a presentation during the Bank's annual meetings, which gather its most important stakeholders from around the globe for several days of discussion and networking ([World Bank](#), October 15). Prior to the presentation, Bert Hofman, the Bank's country director for China, promised it would "get some facts straight" on the BRI ([Twitter](#), October 12). The presentation was well attended, and featured a panel discussion including a PRC vice minister of finance ([Twitter](#), October 12).

The paper identifies 62 separate BRI investment projects, and evaluates whether they will reduce trade costs and spur economic growth for participating countries. Its conclusions are unambiguously positive. The report's abstract states that "the Belt and Road Initiative will significantly reduce shipment times and trade costs", reducing trade costs between 1.1 and 2.2 percent for the world as a whole, and 1.5 and 2.8 percent for participating Belt and Road nations ([World Bank](#), October 15).

These findings by one of the world's premier international development organizations are good news for the PRC, amid a rising chorus of international concern over the purpose and practicality of BRI investment. PRC diplomats, bankers, and businesspersons will no doubt point to them to assuage concerns among current and potential BRI partners. But the report's findings are specious, because of two errors that appear to mar the reliability of its analysis.

One Belt, One Road, All Wrong

The first problem is serious, but somewhat understandable given the BRI's amorphous nature: Some of the projects the report identifies as "Belt and Road" projects have no discernible PRC involvement. For example, the Marmaray rail tunnel, which connects Turkey's European and Eurasian sides, has been financed and built by a Turkey-EU-Japan consortium ([Hurriyet Daily News](#), March 2; [The Guardian](#), October 29 2013). The paper also includes a rail line from Arkalyk to Shubarkol in Kazakhstan, which was opened in 2014 with no apparent PRC involvement ([Rail Turkey](#), September 17 2014), as well as a rail line from the Iranian city of Gorgan to the city of Uzen in Kazakhstan, which came online in 2013, also without PRC involvement ([Railway Gazette](#), May 13 2013). Upgrades to ports in Aktau in Kazakhstan and Baku in Azerbaijan, while clearly meant to facilitate PRC transshipping across the Caspian Sea, were likewise completed without financing or construction assistance from PRC entities ([Jamestown](#), October 2 2015; [Railway Pro](#), Feb 25 2014). A Thai-Cambodia rail link was funded by Cambodia and the Asian Development Bank ([Railway Gazette](#), April 5).

In its paper, the World Bank appears to have adopted an approach similar to the PRC's in defining what constitutes a "Belt and Road" project. The PRC has not objected when countries brand their infrastructure projects as "Belt and Road", even if no PRC-based entities are actually involved with the project. This seems to be the case with the above projects. In the case of the Marmaray tunnel, for example, Turkish president Recep Erdogan publicly associated the project with China's "New Silk Road" at a 2017 Belt and Road Forum in Beijing, despite the lack of PRC involvement in its construction ([Office of the Turkish President](#), May 14 2017).

The paper's second problem is much more serious. The paper's positive conclusions about the BRI's future benefits are unambiguous ("the Belt and Road Initiative will reduce shipment times between 1.2 and 2.5 percent, leading to reduction of aggregate trade costs between 1.1 and 2.2 percent"), but its authors appear to have made no serious effort to grapple with the *feasibility* of the proposed projects. If the project has been proposed, and the relevant governments have declared it part of the BRI, the paper assumes it will be seen through to completion. Many of the

projects it evaluates in Central Asia and Africa are already completed or are under construction. But the picture is very different for projects in South and Southeast Asia.

Some of the projects there are little more than pipedreams. A proposed high-speed rail line from Calcutta to Kunming, in the southwest of the PRC, appears to exist nowhere outside the mind of the PRC consul general in Calcutta ([India Today](#), September 12). The paper assumes that Indonesia and Malaysia will complete an astonishingly challenging 50-km bridge across the Straits of Malacca; neither government is pursuing the project ([SEAsia](#), February 6). It also assumes successful completion of a 120-km canal across the Kra Isthmus in Thailand, proposals for which have existed in one form or another for hundreds of years; at the moment the project has no form beyond a recently initiated Thai government feasibility study ([Bangkok Post](#), October 29).

Even for less ambitious projects, the paper's analysis makes no accommodation for project cancellation or alteration. This is a surprising oversight, since the World Bank should understand better than anyone the vicissitudes of international infrastructure financing. As a result, the reliability of the Bank's forecasts are dissolving in real time: All three Malaysian railroad projects the paper analyzes were recently suspended by Malaysia's government until further notice ([Channel NewsAsia](#), August 21); Pakistan, the jewel in the BRI crown, is seeking to downsize, renegotiate, or restructure the lion's share of its projects ([Straits Times](#), September 30); Myanmar has done the same with its own high-profile BRI port project ([China Brief](#), September 19); and while the high-speed rail in Thailand does indeed appear to be going forward, PRC firms are no longer involved as financiers, and are now only one of many potential partners in construction ([Nikkei](#), November 13).

Conclusion

If the Bank had done a better job selecting projects, and couched its conclusions in less categorically positive terms, the final results would, more than likely, still have painted a largely positive picture of the BRI. But the Bank's decision to define BRI projects in extremely broad terms, and its failure to account—both in its analysis and in its presentation of its conclusions—for the simple reality that building infrastructure in developing countries is difficult, all beg the question of why it released the report at such a sensitive moment for the BRI.

The Bank is no stranger to “relationship management” with the PRC government: In 2007 it agreed to omit from a final report on the health effects of pollution in the PRC its findings that air pollution caused 350,000 to 400,000 premature deaths per year in the country. The PRC government demanded the figure's removal, on the grounds that its release could affect social stability ([US-China Institute](#), August 3, 2007) [1]. The PRC's voice in the World Bank has grown since then. In 2010 its total shareholding in the Bank increased from 2.77 percent to 4.42 percent, making the PRC the third-largest shareholder, behind Japan and the US ([China Daily](#), April 26 2010). A plan to boost the PRC's share still further, to 6.01 percent, through a large increase in paid-in capital, was approved earlier this year, and finalized at the same October annual meetings where the Bank presented its analysis of the BRI (World Bank, October 13).

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Notes

[1] David Dollar, then the World Bank country for director for China—now a senior fellow in the John L. Thornton China Center at the Brookings Institution in Washington DC—defended the release of an altered version of the report, saying in a statement, “In undertaking this ground-breaking assessment of its pollution challenges, China has shown how committed it is to addressing the problem” ([World Bank](#), August 11 2007).

Xinjiang's Re-Education and Securitization Campaign: Evidence from Domestic Security Budgets

By Adrian Zenz

In August 2018, the U.N. Committee on the Elimination of Racial Discrimination expressed its concern at reports the PRC had detained as many as a million members of Muslim ethnic minorities in extrajudicial re-education camps in the Xinjiang Uyghur Autonomous Region (XUAR). At the same meeting, the PRC flatly denied the existence of "re-education camps", with United Front Work Department official Hu Lianhe arguing that "criminals involved only in minor offenses" are assigned to "vocational education and employment training centers to acquire employment skills and legal knowledge" ([China Daily](#), August 14). Other officials, including Xinjiang governor Shohrat Zakir, subsequently echoed his denial ([Xinhua](#), October 16).

But the PRC government's own budgets appear to contradict these assertions. Xinjiang's budget figures do not reflect increased spending on vocational education in the XUAR as the region ramped up camp construction; nor do they reflect an increase in criminal cases handled by courts and prosecutors. Rather, they reflect patterns of spending consistent with the construction and operation of highly secure political re-education camps designed to imprison hundreds of thousands of Uyghurs with minimal due process.

This article supports this conclusion through examination of official PRC budgetary figures, analyzing spending breakdowns at the regional, prefectural, and county levels to produce findings of unprecedented granularity. Among its most striking conclusions:

- Spending on security-related facility construction rose by nearly RMB 20 billion (or 213 percent) in 2017.
- Vocational spending in Xinjiang actually *decreased* from 2016 to 2017, as widespread camp construction began.
- Instead, camp construction has largely been funded by the same authorities that oversaw the recently-abolished system for re-education through labor.
- Spending on prisons doubled between 2016 and 2017, while spending on the formal prosecution of criminal suspects stagnated.
- Expenditures on detention centers in counties with large concentrations of ethnic minorities quadrupled, indicating that re-education is not the only form of mass detainment in the XUAR.

We begin this analysis by comparing national security spending with that of the XUAR.

Comparing Final Domestic Security Spending Accounts

Table 1 compares domestic security spending in the XUAR, Qinghai province and across all PRC provinces and regions (labeled "national"). Since Qinghai province has also seen violent discontent among ethnic minorities, it can serve as a kind of 'control', allowing us to examine security spending in the XUAR alongside a 'normal' province with similar issues.

	Actual spending (2017)			Actual spending per 100,000 of the population		
	National	XUAR	Qinghai	National	XUAR	Qinghai
Total domestic security	1,061,233	57,639	9,004	76,8	240,4	151,8
PAP (武警)	52,531	1,674	538	3,8	7,0	9,1
Public Security (公安)	625,138	30,831	4,450	45,2	128,6	75,0
Prosecutorial system (检查)	72,687	1,366	855	5,3	5,7	14,4
Court system (法院)	113,987	2,250	1,264	8,2	9,4	21,3
Justice system (司法)	34,870	1,890	n/a	2,5	7,9	n/a
Prisons (监狱)	n/a	4,651	n/a	n/a	19,4	n/a
Other domestic security expenditures	40,870	13,408	55,1	3,0	55,9	0,9
Uncategorized domestic security expenditures	121,150	1,569	1,842	8,8	6,5	31,1
Vocational training (职业教育)	265,059	4,113	1,997	19,2	17,1	33,7

Table 1. "Uncategorized domestic security expenditures" were manually calculated by the author (also below). Sources: national and provincial finance departments.

While Xinjiang spent below the national average on vocational education—and just over half the amount spent per capita in Qinghai—the XUAR spent unusually high amounts per capita in 2017 on domestic security and "other domestic security expenditures". It also spent more than three times the national average on its justice system, while spending roughly the national average on its prosecutorial and court systems [2].

The latter observation is important because the term 'justice system' means something very different in the PRC than in countries like the United States. In the PRC, the prosecutorial and court systems, which engage in the formal prosecution and conviction of criminal suspects, are funded separately from the 'justice system', which, among other functions, has significant responsibilities in re-education and general legal education. (The justice system also oversaw the former re-education through labor system; 劳动教养). For Xinjiang, this is confirmed by the fact that government construction and procurement bids related to re-education or similar "training" facilities frequently referred to them as "justice bureau transformation through education centers" (司法局教育转化中心) or simply "justice system schools" (司法学校) (Zenz, September 6). The increased funding provided to the justice system in Xinjiang is likely the result of a significant expansion of its re-education duties within the region.

Comparing Xinjiang's figures with that of the rest of the PRC is one way to confirm the region's enormous spending on re-education-related security expenditures. Another way is to compare the XUAR's domestic security budgets for 2016 with those from 2017, the year the buildup truly began (China Brief, May 15).

Inflated Spending Items in Xinjiang's Domestic Security Final Accounts

Table 2 lists total XUAR domestic security expenditures for 2016 and 2017. Listed below the headline amount are expenditures for seven domestic security sub-categories. The table also includes some figures from a sampling of ethnic minority prefectures and counties. Together, these minority territories account for 60 percent of the XUAR's total population, and 73.1 percent of its Muslim minority population. [3]

	XUAR total (population 23,2 million)			Sample of ethnic minority prefectures and counties (population 13,9 million)		
	2017	2016	Change	2017	2016	Change
Total domestic security	57,639	30,088	92%	26,760	10,014	167%
Public Security (公安)	30,831	17,497	76%	14,835	6,619	124%
.....administrative operations (行政运行)	12,722	9,831	29%	5,510	4,183	32%
.....social stability management (治安管理)	2,410	719	235%	1,479	100	1,373%
.....detention center mngt (拘 抽收教场所管理)	1,494	441	239%	1,017	252	304%
.....other public security expenditures	9,102	4,029	126%	5,986	1,472	307%
Prosecutorial system (检查)	1,366	1,282	7%	489	455	8%
Court system (法院)	2,250	2,278	-1%	767	816	-6%
Justice system (司法)	1,890	868	118%	1,118	334	235%
Prisons (监狱)	4,651	2,402	94%	n/a	n/a	n/a
Other domestic security expenditures	13,408	2,975	351%	9,350	1,541	507%
Uncategorized domestic security expenditures	1,569	1,288	22%	15	79	-81%
Vocational training	4,113	4,427	-7.1%	1,292	1,336	-3.3%

Table 2. Sources: XUAR and local finance departments. The minority region sample includes Hotan, Kashgar, Ili, Altay, Boertala Prefectures, along with the counties of Yumin, Tuoli and Ruqiang (Tacheng Prefecture), Korla City (Boertala Prefecture), and Awati and Wushi (Aksu Prefecture).

The table shows that domestic security spending in minority regions increased much more than in the XUAR as a whole (167 versus 92 percent). The increase was almost entirely due to massive hikes in five domestic security spending categories (highlighted in red in Table 2):

- Three sub-categories of public security (i.e. policing):
 - Social stability management
 - Detention center management
 - Other public security expenditures
- Justice system expenditures
- "Other domestic security expenditures"

Table 2 also shows that spending on the prosecutorial system increased only marginally, with court expenditures actually declining in both the XUAR and in minority regions. Put differently, the XUAR doubled its spending on prisons without increasing the budget of institutions that determine prison sentences. In the meantime, spending on vocational education declined in both the XUAR and minority regions. In minority regions spending on domestic security exceeded expenditures on vocational education by nearly 20 times in 2017 (compared to only 6.5 times in 2016).

The XUAR's spending on public security—another word for policing—nearly doubled in 2017, with this category alone exceeding the entire 2016 domestic security budget. "Administrative operations"—a public security sub-category composed mainly of police wages and benefits—typically dominates public security budgets, but in this case its contribution to increases was small. The public security sub-categories with the largest increases were social stability management, detention center management, and an obscure sub-category called "other public security

expenditures", which saw by far the largest absolute rise of all public security sub-categories. Even that rise, however, was dwarfed by the increase in "other domestic security expenditures".

These five categories of inflated spending matter because they strongly suggest that the construction of an enormous network of 're-education' camps was funded not out of the vocational training budget, but out of the portions of the XUAR budget that correspond with policing; re-education and the former reform through labor system; and domestic security. Together the five categories accounted for 98.9 percent of all security-related facility construction expenditures in a sample of 10 minority counties (discussed further below).

The View from the Bottom

More granular local level data collected by the author reinforce these interpretations. A closer look at county budgets reveals consistent differences between counties with a Muslim minority population of at least 35 percent and those with a lower share. From 2016 to 2017, counties with a higher share of Muslim minority population saw a 334 percent increase in the five budget categories highlighted above, while those with a lower share saw an average increase of "only" 29 percent in 2017 [4]. In the counties with higher Muslim population shares, spending on the five categories made up 72.3 percent of all domestic security spending in 2017, while vocational education expenditures only rose by 0.4 percent.

Local governments drove the increase in domestic security spending: Domestic security spending by XUAR prefectures and counties grew by 108 percent, versus a 38 percent increase at the regional level (自治区本级) [5]. This is not surprising considering that many security infrastructure and re-education related bids—as well as most new police recruitment notices—were issued at the county level or lower. Most public bids pertaining to re-education camps identified by the author were issued by public security bureaus (i.e. the police), while a small share came from justice bureaus, which oversee re-education, as well as the former reform through labor system (Zenz, September 6). None of the construction bids reviewed by the author were issued by bureaucratic organs responsible for vocational education.

Local level data such as these are also important for another reason: They allow us to disaggregate the sources of rapidly increased spending in the two "other" categories—"other domestic security expenditures" and "other public security expenditures"—which were, by far, the largest sources of new security spending in the XUAR. This analysis belies further the notion that budget increases went towards vocational training in any meaningful form.

Departmental Spending

County level-figures provide even more detailed breakdowns on the final spending figures for individual departments (部门决算); taken together, they show that an unusually large portion of "other domestic security spending", and "other public security spending" went towards construction and capital expenditures. Table 4 below lays out the results from a sample of 10 counties with full departmental breakdowns, and eight additional counties with public security department breakdowns. All of the sampled counties have a Muslim population share over 35 percent. The table shows that combined spending on basic construction and other capital investments constituted 71.4 percent of expenditures for all "other public security" and 66.8 percent for "other domestic security".

Spending category (figures in million RMB)	Other domestic security spending	Other public security spending
Wages and benefits (工资福利支出)	10,8 (0.7%)	149.1 (9.0%)
Goods and services (商品服务支出)	293.7 (19.0%)	143.9 (8.7%)
Subsidies for individuals and families (对个人和家庭的补助)	124.8 (8.1%)	238.1% (14.3%)
Basic construction (基本建设支出)	286.6 (18.6%)	638.9 (38.5%)
Other capital expenditures (其他资本性支出)	814.7 (52.8%)	470.8 (28.3%)
Other categories	11.3 (0.7%)	20.2 (1.2%)
Total	1,541.9 (100%)	1,661.0 (100%)

Table 4. Sample of 18 counties with Muslim populations shares over 35 percent. Source: County finance departments (departmental breakdowns).

In contrast, spending on vocational education in nine of the ten counties with full departmental breakdowns amounted to only RMB 106.8 million, of which only RMB 4.7 million (4.4 percent) was spent on construction.

It is also likely that greater spending on vocational training could have been drawn from other parts of the XUAR budget. The XUAR's total budget increased by RMB 49.9 billion between 2016 and 2017; nearly half of this increase (RMB 27.6 billion) came from greater spending on domestic security. The only other categories with increases over three billion RMB were education (where increased spending was mostly on preschooling, not vocational schooling), public services, exploration of new natural resources, housing benefits and "other spending".

Conclusions

Just like the PRC's former re-education through labor system (劳动教养), Xinjiang's re-education campaign seems to be managed by the Ministry of Justice, administered by the public security agencies, and funded largely out of the budgets of these same authorities. Even the region's recently amended de-extremification ordinance refers to "vocational skills training centers" (职业技能教育培训中心) as "re-education institutions" (教育转化机构), a term that both Hu Lianhe and Shohrat Zakir carefully avoided ([Xinjiang PCSC](#), October 9). The region's so-called "vocational training" is arguably not substantially different from the former re-education through labor system, which was abolished because the PRC government deemed it inappropriate for a modern society governed by the rule of law ([Zenz](#), September 6).

Moreover, Xinjiang's so-called "vocational training" campaign has not actually improved employment outcomes among the campaign's target population. Official reports note that in 2017, 58,500 "poor persons" found employment, 17 percent more than planned, but not a large increase from the 57,800 in 2016 or the 57,900 in 2015. The same figure for the first three quarters of 2018 was 38,800, equivalent to only 51,730 per year [6]. This data provides a powerful official counternarrative to what Xinjiang's governor is claiming. Neither the 2017 nor the 2018 XUAR employment reports refer to the purportedly successful "vocational training centers".

These facts do not support the notion of a large campaign to improve vocational skills. Rather, the mass disappearances of Muslim minorities in Xinjiang, beginning in early 2017, almost certainly resulted in their imprisonment in *de facto* political re-education institutions administered by public security or justice system authorities. It is safe to assume that in 2017, billions of *renminbi* were spent on these highly secure facilities, where individuals undergoing "training" are involuntarily detained for indeterminate time periods. Furthermore, budget

figures indicate that it is unlikely that many of the so-called "criminals involved only in minor offenses" underwent formal trials. It is therefore entirely inaccurate to label them "criminals". Often, their only "offense" is being Muslim.

Whatever "employment training" these facilities provide is, evidently, not administered or paid for by the vocational education system. This would explain why teacher recruitment notices for the newly constructed re-education system do not require tertiary degrees or relevant skills, in stark contrast to genuine vocational education ([Zenz](#), September 6).

The actual employment benefit of the camps' re-education "training" is questionable. Quite the contrary: the real goal of Xinjiang's "skills training" campaign appears to be political indoctrination and intimidation.

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Notes

[1] Since Qinghai province has witnessed Tibetan riots, it provides a relevant point of comparison.

[2] In China, the prosecutorial and court systems engage in the formal prosecution and conviction of suspects. The justice system has the more general function of providing legal education to the population, guide the work of lower-level judicial organs and engage in the political thought education of cadres.

[3] Population figures are from the 2016 Xinjiang Statistical Yearbook.

[4] The sample comprised 10 counties with Muslim minority population shares over 35 percent, and four counties with shares below 35 percent. The per capita increases were from RMB 275 RMB to RMB 1,191 for minority counties, and from RMB 272 to RMB 349 in 2017 for non-minority counties.

[5] Generally, the vast amount of domestic security spending (83.1 percent) occurred at these sub-regional levels, especially in counties.

[6] For more information, see

<https://web.archive.org/web/20181017191130/http://www.xjrs.gov.cn/zwgk/tzgg/201809/t8a4ac70265ad6c230165d73182e207ba.html>,

https://web.archive.org/web/20180120072827/http://www.shule.gov.cn/ShowNews_Content14604.shtml,

https://web.archive.org/web/20181017194304/http://www.sohu.com/a/233640621_100034331

Quad Restrictions: Addressing PRC Investment Concerns in the Indo-Pacific

By Ashley Feng and Sagatom Saha

Washington has recently taken a tougher tack to growing inbound investment from the People's Republic of China (PRC) by strengthening the Committee on Foreign Investment in the United States (CFIUS), but its security partners in the PRC's backyard have not all followed suit ([US Congress](#), August 13, 2018).

In the United States, the primary concern is that the PRC is using foreign direct investment (FDI) as a Trojan horse: When PRC companies invest in critical sectors like energy, transportation, and communications in traditionally open economies, Beijing can gain access to critical technologies, data, and infrastructure it can use for military ends. Such investment can also set the ground for technology transfer—both licit and otherwise—and weaken longstanding alliances, put central governments at odds with their regional counterparts, and co-opt business interests as lobbyists for Beijing.

India, Japan, and Australia, America's partners in the Quadrilateral Security Dialogue (the Quad), face the same national security threats as the United States, but not all have responded by strengthening scrutiny of inbound PRC investment. In addressing these issues, Japan, which has managed to allow some inbound investment without exposing itself to national security risks, can serve as a starting point for its Quad partners.

Japan: Open for Business, Except to China

Despite their geographical proximity, PRC investment in Japan is not large—only \$996 million in 2017 ([Japan External Trade Organization](#), 2018). In recent years, PRC companies have invested in Japan's finance, banking, retail and technology, and e-commerce sectors, with companies like Tencent, JD.com, and VIPSHOP recently establishing subsidiaries in Japan or partnering with Japanese companies. None of these investments have been in sensitive sectors, which is entirely by design ([JETRO](#), 2017; [PRC Ministry of Commerce](#), 2017).

Japan's original foreign investment law, the Foreign Exchange and Foreign Trade Act (FEFTL), passed in 1949, and placed strict boundaries on foreign investment. All inward FDI had to be filed with the Ministry of Finance through the Bank of Japan if the acquisition exceeded 10 percent of a company. FEFTL also required foreign companies looking to invest in critical industries like defense, energy, agriculture and livestock, financial services, high-tech, or certain types of manufacturing, to file with the Ministry of Finance six months in advance for national security review ([Cabinet Secretariat](#), October 1, 2007). The FEFTL's national security clause gave the Ministry of Finance and relevant sectoral ministries the authority to condition or cancel planned investment in cases where national security is impaired.

Prime Minister Shinzo Abe has pushed his government to throw off Japan's historical closedness and do more to attract foreign direct investment. As part of his economic reform program, his government created an "Investment Advisor Assignment System" to make it easier for foreign businesses to consult with the Japanese government. The system assigns a State Minister to advise and support foreign companies that have invested roughly at least \$180 million, have more than 500 regular employees in Japan, and have portfolios identified as strategic by the Japanese government. Seven of the nine companies that have been approved for the Investment Advisor Assignment System are from the United States. None are from the PRC ([Invest Japan](#), accessed November 4, 2018).

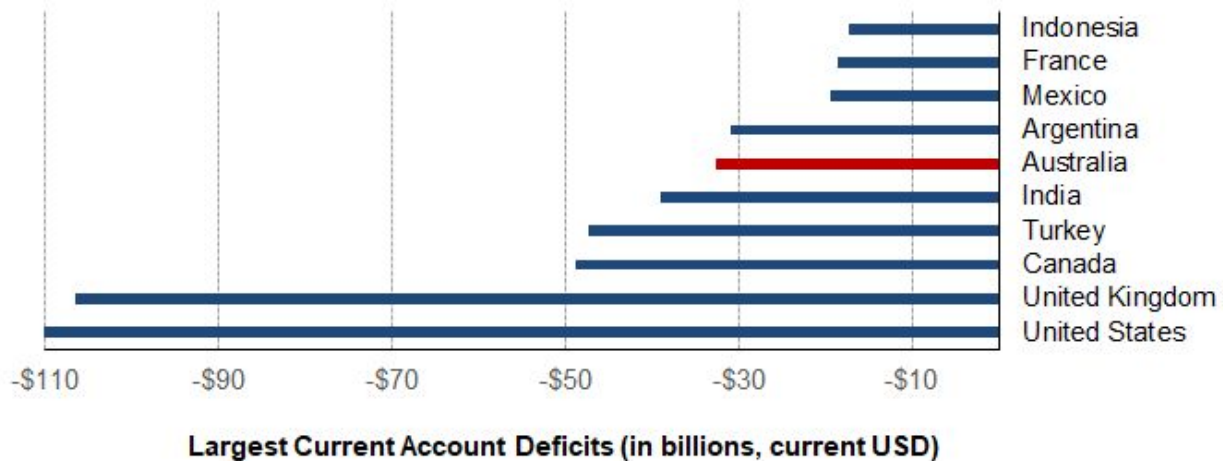
This is partially due to distrust between the two countries: Roughly 30% percent of respondents in a December 2017 poll said that Japan should not cooperate with China's economic plans, with only 8.6 percent saying Japan should cooperate with China ([Genron NPO](#), December 2017). In the same poll, 66.5 percent of all respondents said that economic frictions between Japan and China was an obstacle to building China-Japan relations.

Japan has good reason to impede PRC investment in strategic sectors. When Japanese companies entered into joint ventures with PRC companies to develop high-speed trains, they ended up competing in third countries against their own technologies and designs, which had been stolen by their PRC partners ([Wall Street Journal](#), November 17, 2010). Japanese businesses and the government have learned their lessons, with the honorary chairman of the Central Japan Railway Company saying that "the technology transfer to China was a huge mistake" ([Japan Forward](#),

August 18, 2017). As a result of these hard lessons, while PRC investment into Japan has increased, Japan's pre-existing legal and bureaucratic frameworks have managed to balance national security concerns while not closing off the country from FDI.

Australia: National Security in the Economic Balance

Australia has had difficulty striking a similar balance, but has recently moved in the direction of a stricter investment review regime. Foreign investment is critical in the Australian economy, which runs one of world's largest current account deficits ([World Bank](#)).



The Australian economy—more so than most—cannot grow without foreign investment. Already, FDI supports 1.2 million Australian jobs—10 percent of the national workforce—and nearly 25 percent of Australian industry and exports ([Australian Trade and Investment Commission](#)). PRC investment has surged in the past decade, growing more than 20 percent since 2012 to become the ninth largest source of investment in 2017 ([Australian Trade and Investment Commission](#)). Australia also receives significant amounts of investment—90 billion dollars (116.6 Australian dollars) from Hong Kong, Australia's fifth largest foreign investor. Much of Hong Kong's outbound investment originates from the PRC, although it is difficult to determine the exact amount. Combined PRC and Hong Kong investments in Australia is almost as much as that of Japan, Australia's fourth largest investor.

Reflecting these realities, Australia until recently maintained a relatively permissive foreign investment regime. Unlike CFIUS, which can block transactions on its own authority, Australia's Foreign Investment Review Board (FIRB) only advises the country's Treasurer on major foreign investment proposals. The final decision lies with the Treasurer, who can—and often has—delegated this authority to lower-level officials. In addition, until 2017, the Australian Treasury evaluated foreign investment proposals on an ad-hoc basis, meaning that Australia did not have a preemptive list of critical sectors where foreign investment is limited or restricted for national security reasons.

Australia has seen persistent tension between the security-minded central government in Canberra and state governments eager to strike deals with PRC investors. In 2015, the Northern Territory government signed a 99-year lease with Landbridge, a PRC company with ties to the the People's Liberation Army and Chinese Communist Party, for the Port of Darwin, which also hosts more than 1,000 US Marines and the US military ships that supply them ([Guardian](#), October 13, 2015).

Although major foreign investments should be subject to FIRB approval, the Northern Territory government and Landbridge exploited a loophole wherein state and territory governments did not require Canberra's approval before selling off their critical infrastructure. The proposal was reviewed only at the lowest levels of Australia's Department of Defence ([The Australian Financial Review](#), May 2, 2017).

The deal prompted then-US President Barack Obama to raise the issue with former Prime Minister Malcolm Turnbull ([The Australian Financial Review](#), May 10, 2016). Australia's central government officials shared US concerns: The lease only guarantees the Australian Navy full port access for 25 years of the 99-year lease, and Landbridge's previous investments in a Panamanian port coincided with Panama's shift of diplomatic recognition from Taiwan to the PRC ([Financial Times](#), July 18 2017).

Soon afterward, in March 2016, the Australian government formalized stricter foreign investment rules, amending the Foreign Acquisitions and Takeovers Regulation of 2015 to make all critical infrastructure acquisitions—including those from state and territory governments—subject to FIRB review ([Australian Treasury](#), March 18, 2016).

In August 2016, the New South Wales government attempted to sell Ausgrid, one of Australia's leading electricity distributors, to State Grid, a Chinese state-owned company and the largest utility in the world ([Australian Strategic Policy Institute](#), July 12, 2016). Canberra rejected the sale on national security grounds, as Ausgrid also operates Pine Gap, a joint US-Australian intelligence facility that monitors nuclear flares in Eurasia ([Sydney Morning Herald](#), October 21, 2016; [Sydney Morning Herald](#), May 28, 2018).

Soon afterwards, in January 2017, Canberra created a Critical Infrastructure Centre to preemptively advise FIRB on national security matters, and to maintain a confidential register of high-risk assets and sectors like energy, telecommunications, and transportation. To support the Critical Infrastructure Centre, the Australian Parliament passed the Security of Critical Infrastructure Act of 2018, which imposes reporting requirements on owners and investors of critical infrastructure; grants the Department of Home Affairs the authority to request information from owners, operators, and investors in critical infrastructure; and allows the government to directly intervene in critical infrastructure to mitigate national security risks ([Critical Infrastructure Centre](#)).

Although Australia's revamped approach to foreign investment played a part in Canberra's decision to kill the Ausgrid deal, it is too early to tell whether the changes will have the overall desired effect, as state and territory governments still seem eager for Chinese investments—even those that come with PRC ties. Most notably, the state of Victoria, recently bypassed Canberra to sign a memorandum of understanding committing the state to participation in Beijing's Belt and Road Initiative ([Australian Financial Review](#), October 26, 2018). The state government initially hesitated to release the text of the agreement publicly; when it finally emerged, the language bore many hallmarks of having been directly translated from Chinese, indicating that the Victorian government had likely done little to no negotiating with their PRC counterparts over its contents prior to signing.

India: Worst Friends, Best Enemies

As with Australia, China has emerged as one of India's fastest growing sources of FDI; PRC FDI in India has more than doubled in the last decade ([UN Conference on Trade and Development](#)). Unlike Australia, however, New Delhi has adopted a welcoming attitude toward PRC investment, belying the sometimes-antagonistic geopolitical relationship between the two countries. Even after a two-month military border standoff last year, India has continued to loosen restrictions on inbound PRC FDI ([The Economic Times](#), July 12, 2018). So far, PRC investment has flowed primarily into India's digital start-up sector, but New Delhi is in the process of dismantling protections that would prevent Beijing from making investments in critical sectors like defense, telecommunications, and infrastructure.

After its independence, India maintained a restrictive FDI policy that favored domestic ownership and curbed the outflow of limited foreign exchange reserves. The Indian government only began to liberalize its FDI policy in the 1990s with the New Industrial Policy of 1991, which opened nearly all sectors to foreign investment, allowing foreign ownership of up to 100 percent in some sectors. Today, most FDI enters India through the “automatic route”—that is, without government approval. Elsewhere, like the atomic energy sector, FDI enters by the “government route,” in which foreign investment requires government approval. The Foreign Exchange Management Act (FEMA) of 1999 delineates which sectors fall under each route, but foreign investment is generally permitted unless expressly restricted ([Observer Research Foundation](#)).

Since Prime Minister Narendra Modi took office in 2014, his government accelerated the dismantling of India’s foreign investment restrictions, a tacit acknowledgment that India’s lack of domestic liquidity has stifled its economic potential.

In May 2017, India abolished its CFIUS equivalent, the Foreign Investment Promotion Board (FIPB), underscoring the desire to speed FDI applications through the government route. The change devolved approval of FDI proposals to relevant government departments. Although FIPB had proved to be slow and unwieldy, some experts question whether India’s government ministries have the capacity to enforce the relevant restrictions, and whether or not India may be compromising its national security in its pursuit economic growth ([Reuters](#), May 24, 2017; [Livemint](#), May 25, 2017).

More broadly, as part of the “Make in India” initiative, the Modi government has relaxed restrictions in critical sectors like defense, which now allows foreign investment of up to 40 percent of shares under the automatic route, with larger shares possible through the government route ([National Investment Promotion and Facilitation Agency](#)). The Modi Administration’s Department of Industrial Policy and Promotion (DIPP) has also promoted opportunities for foreign investors in critical sectors. In the power sector, DIPP has highlighted investment opportunities in Supervisory Control and Data Acquisition (SCADA) systems, an access point that an adversary could compromise to mount a cyber attack. India also now allows 100 percent foreign ownership of non-nuclear power generation, transmission, and distribution infrastructure without prior approval ([Department of Industrial Policy and Promotion](#)).

India, perceiving the PRC as a geopolitical threat, has so far boycotted BRI. However, while New Delhi has gone to great lengths to dissuade its neighbors from accepting PRC foreign investment, it continues to loosen its own FDI policy. Without sufficient consideration of national security, New Delhi risks exposure to the same problems that wrong-footed Canberra.

Investing in the Alliance

The PRC will continue to look abroad to acquire goods and services—and in some cases, leverage—in critical sectors. America’s Indo-Pacific allies are in a precarious position, looking to the United States as their primary security partner, while fostering growing economic links with the PRC. Although their economies vastly differ, America’s allies in the Quad could each benefit a closer look at their foreign investment policies, seeking a practical balance between economic considerations and the national security concerns that often underwrite Chinese investments. While Japan’s system is not perfect, there is room to share best practices with other Quad partners, such as India, whose system appears vulnerable to predatory inbound investment that would undermine their alliance.

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An Instant PLA: Just Add 3D Printing

By Wilson VornDick

In the PRC, the promise of 3D printing (三维打印 or 3D打印技术) has stretched the boundaries of possible future applications. The PRC is pushing ahead with innovative ways of employing 3D printing across all sectors of its economy, from prosthetics to titanium-based aerospace parts, to a sustainably-built bus stop shelter outside Shanghai (Winsun, 2017). The PRC is also pioneering concepts and applications for 3D printing of materiel, weaponry, and munitions for use by the People's Liberation Army (PLA).

This article reviews available literature from the PRC, including both military and civilian academic and scientific sources, to illustrate evolving views of the development and possible deployment of 3D printing. The nascent and notional concepts espoused in these articles stretching back to 2013 were important in laying the groundwork for many current 3D printing advances. As Wang Feiyue, a director at both the National Defense University of Technology and the Chinese Academy of Sciences states, quoting an old Chinese proverb, one must “cross the river by feeling the stones” (摸着石头过河) [1].

PRC Views of 3D Printing Technology

3D printing falls under the broad umbrella of advanced manufacturing (先进制造业) technology which is divided between “subtractive” and “additive” manufacturing. Subtractive manufacturing (减法制造) is the process in which an item is created by the removal of material through methods such as drilling or lathing. Conversely, additive manufacturing (AM; 增材制造/加式制造) is the process of adding material to create an item. Pioneered in the 1980s but still considered a new form of AM, 3D printing is the ability to fabricate objects by constructing them over a period of minutes, hours, or days using a “printer” capable of laying down one very precisely defined layer of a material after another, eventually forming the completed object.

As Hua Rong from Rockwell Automation China points out, a variety of materials can be used to fabricate objects, including resin, plastic, or even metal [2]. It is important to note that the field of 3D printing, as part of AM, remains dynamic as new concepts, technical definitions, standards, techniques, and follow-up technologies evolve. As such, PRC sources sometimes refer to 3D printing and AM as one in the same, while other sources make minor distinctions between the two based on the type of material created or process employed. For this article, 3D printing or AM will be used as cited in the original PRC sources.

Even though Western standards identify upwards of ten 3D printing methods, the PRC sources reviewed in 2015 list only six 3D printing methods (ISO, 2015; ALL3DP, 2018) [3]. The six processes include: Fused Deposition Modeling (熔融沉积成型), Selected Laser Sintering (选择性激光烧结), Selective Laser Melting (选择性激光熔融), Stereolithography Appearance (立体光刻), Electron Beam Melting (电子束熔化), and Laminated Object Manufacturing (分层实体制造) [4] [5]. This discrepancy in methods is likely because of the rapidity with which this technology has advanced since 2015. Despite the differences in the number of methodologies, 3D printing technology essentially breaks down into “what” and “how” material is added and joined. 3D printers themselves are quite intricate and include both hardware and software components. Hardware generally includes the printer assemblies, the nozzles, and the requisite mixture of feedstock required for fabrication, among other components. Meanwhile, software consists of specified supervisory control and data acquisition (SCADA) systems and large,

memory-intensive blueprints required for production, known as computer-aided design files (CADs) (电脑辅助设计).

Fabricating National Rejuvenation

AM aligns with China's national strategic objective to become a science and technology superpower (科技强国) through initiatives at all levels of government. Because 3D printing relies heavily on advances in both software and hardware, 3D printing falls squarely in broader efforts within China to promote "informatization" (信息化). Furthermore, advances in 3D printing can be used to boost not only civilian industries, but also military ones as well, making it a good fit for the PRC's program of "military-civil fusion" or "civil-military integration" (军民融合; [China Brief](#), April 9, 2018). Two especially noteworthy programs in the context of 3D printing and civil military fusion are "Made in China 2025" and the PRC's 13th Five-Year-Plan ([China State Council](#), May 8, 2015; [China Daily](#), 2017) [6].

The US Department of Defense's 2018 report to Congress on military and security developments involving the PRC points out that the collaboration between the PRC's Ministry of Science and Technology and the PLA Central Military Commission's Science and Technology Commission described in the *13th Five-Year Plan-Military-Civilian Fusion Science & Technology Developmental Guide* make that document a "roadmap for military-civilian fusion efforts in the next five years", one meant to benefit both the PRC economy and the PLA through a specific focus on advanced manufacturing techniques. Also, the "plan aims to develop internationally competitive leading enterprises; improve technical, equipment, and quality standards to international levels; and create a long-term industrial supply chain and perfect mass production" ([Office of the Secretary of Defense](#), May 16, 2018) [7].

Conflicting PRC Views of the 3D Printing Horizon

Linking his support to these state-directed efforts and the "Thousand Talents Program" (千人计划), Wang Feiyue champions the integration of fields such as big data (大数据) and 3D printing with Chinese intelligence and military capabilities [2]. He begins by pointing out that 3D printing has the potential to usher in major changes on the battlefield, from logistics to armaments to combat operations, since "any computer that can connect to a source can become a production plant." Additionally, 3D printing is an "industrial and equipment revolution" that can harness society to "socially manufacture" (社会制造中) items in real-time, an ability that could be harnessed for military manufacturing as required. In Wang's view, 3D printing offers three advantages: flexibility, production of both simple and complex items, and production capability for a large inventory and a variety of items. Advancing his assessment beyond 3D printing, Wang augurs a broader swath of the future digital landscape in which advances in cyberspace synch with advances 3D printing. He concludes that existing military systems "must improve and transform" as a result. If that can be achieved, it will aid in the goals toward national rejuvenation and fulfillment of the "Chinese Dream" (中国梦). However, he ominously warns that if China does not properly align and balance between the civilian and military systems, such as 3D printing, then it could spell disaster on par with the Soviet Union's collapse.

Writing about the nascent AM industry in China in 2013, Eric Anderson of the University of California San Diego provides an initial look at the key players, the role of the government, and specific applications for AM in the aerospace industry. At the time, Chinese sources appeared to be mixed on the potential of AM for China, viewing it as both a threat and opportunity. Some viewed 3D printing as a threat because it challenges traditional manufacturing techniques and interests within the PRC. Meanwhile, others expressed fear and anxiety that if China does not become a major player in 3D printing, it could lose critical ground in leveraging this new technology. At the same time, some found that 3D printing is pregnant with possibilities for China to "regain market share in advanced manufacturing" and "leapfrog" global competitors in this developing field [8]. In a follow-up analysis on the aviation and aerospace industries, it was found that China has already achieved significant savings in production time, cost,

and material on account of AM. 3D printed parts have been used in the COMAC C919 passenger jet and various military aircraft such as the Y-20 transport and J-15, J-16, J-20, and J-31 jet fighters [9].

In contrast to Anderson's assessment, Jin Dayuan from the No. 36 Research Institute of China Electronics Technology Group Corporation (CETC) contends that 3D printing will not replace traditional form of manufacturing, rather it will complement. Specifically citing American advances in 3D printing, which is common throughout Chinese sources, Jin holds up American efforts to 3D print parts for the F-35 fighter and SpaceX's Dragon 2 space capsule as examples. However, Jin expounds upon an observation by Anderson that military applications should include the manufacture of complex and rare aviation parts—another common and regularly noted opportunity for China to leverage. Jin also sees additional opportunities in space-based manufacturing (太空制造), thereby reducing loads for launch and greater mission flexibility; production of “mini-unmanned aerial vehicles (微型无人)” and parts (无人机暂用零件);” military electronics such as a 2013 production of a satellite antenna by Shenzhen Weihang Magnetolectric Co., Ltd.; and the production of parts for regular and emergency repairs and general maintenance.

In line with Jin's last point, the repair of damaged military materiel is echoed by writers in *Tactical Missile Technology*, a PRC military journal [10]. Separately, analysts in *Mechanical Engineering and Automation* believe 3D printing can manufacture and repair light-weapons such as the American AR-15 [5]. Referencing American Naval proposals, the same analysts assert 3D printers could be deployed on ships and act as “factories” for materiel, such as drones, which will save space and inventory overhead. Around the same time as that publication, the PLA-Navy unveiled that it had used 3D printers onboard its naval vessels (3Dprint.com, 2015). Finally, writers in another PRC military journal emphasize the opportunities for prototyping and research that 3D printing could afford the PLA [11]. There is one glaring omission that the PRC sources did not consider, however, that portends the danger inherent with AM. Proliferation of illicit materiel, from 3D printed small arms to centrifuges, is of significant concern as the technology circumvents both traditional export control regimes and internal controls [12]. China already has a significant, illicit gun trade problem (China Brief, December 21, 2015).

Conclusion

3D printing has an important role to play in the PRC's strategic objective of becoming a science and technology superpower, with significant implications for both civilian industries and for PLA capabilities. Although analysts within the PRC are divided between those who perceive 3D printing to be a threat to traditional manufacturing industries, and those who consider it an indispensable part of the PRC's superior military capabilities, collaboration between the PRC central government and PLA science and technology commissions has nevertheless resulted in the increasing incorporation of 3D printing technology in military manufacturing. If, as appears likely, the PRC remains at the forefront of civilian applications of this emerging technology, there is every likelihood that the PLA will likewise stand at the cutting edge of its military applications.

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Notes

[1] Wang Feiyue, “国防装备与系统的未来变革：从3D打印到平行军事体系” [The Coming Revolution in National Defense Weaponry and Systems: From 3D Printing to Parallel Military Systems], *National Defense Science and Technology*, vol. 34 no. 3 (June 2013), pp. 1-9.

[2] Hua Rong, “3D打印与制造业” [3D Printing and Manufacturing], *Instrument Standardization and Measurement*, no. 2 (2013), pp. 18-20.

[3] Simon Véronneau, Geoffrey Torrington, and Jakub P. Hlávka, “3D Printing: Downstream Production Transforming the Supply Chain,” *RAND*, (2017).

[4] Jin DaYuan, “3D打印技术及其在军事领域的应用” [3D Printing and Its Military Application], *New Process and New Technology*, no. 4 (2015), pp. 9-12.

[5] Zhou Jiayong, Ji Pingxin, Mo Xinmin, Zhang Ang, and Meng Xiaojing, “3D打印与制造业” [Application and Development Trend of 3D Printing Technology in the Military Field], *Mechanical Engineering and Automation*, no. 6 (December 2015), pp. 217-219.

[6] “Made in China 2025: Global Ambitions Built on Local Protections,” *United State Chamber of Commerce*, (2017).

[7] “Annual Report to Congress: Military and Security Developments Involving the People's Republic of China,” *Office of The Secretary of Defense*, (May 16, 2018).

[8] Eric Anderson, “Additive Manufacturing in China: Threats, Opportunities, and Developments (Part I),” *Study of Innovation and Technology in China - News Analysis: University of California San Diego*, (May 1, 2013).

[9] Eric Anderson, “Additive Manufacturing in China: Aviation and Aerospace Applications (Part 2),” *Study of Innovation and Technology in China - News Analysis: University of California San Diego*, (May 9, 2013).

[10] Guo Chaobang, Hu Lirong, Hu Dongdong, Song Yiran, and Zhang Shaofang. “3D 打印技术及其军事应用发展动态” [Development of 3D Printing Technology and Its Military Applications], *Tactical Missile Technology*, no.6 (2013): 1-4.

[11] Deng Qiwen, Chen Qiang, Guo Jizhou, and Wu Ji, “3D打印技术对装备发展的影响” [The Influence of 3D Printing Technology on the Development of Armament], *National Defense Science and Technology*, no. 4 (June 2014).

[12] Kolja Brockmann and Robert Kelley, “Challenges of Emerging Technologies to Non-Proliferation Efforts: Controlling Additive Manufacturing and Intangible Transfers of Technology,” *Stockholm International Peace Research Institute*, (April 2018)

The “Red Flag River” Project and Media Inflation of PRC Threats

By Abigail Dawson and Matt Schrader

A proposal by a group of apparently government-linked scientists and engineers to divert water from Himalayan glaciers to the arid province of Xinjiang, in the PRC’s northwest, caught the imagination of the PRC internet after the first conference held for discussion of the project in November 2017. Following the wide attention on the Chinese-language web, articles on the proposal—known as the Red Flag River Project (紅旗河方案)—soon made

their way into English-language media, and were picked up across the world. The proposal, which would divert enormous amounts of water northward, was greeted with particular alarm in parts of the Indian press, since Himalayan glacier melt is an important source of water for two of India's most important rivers, and the two countries have a long history of disagreement and mistrust related to use of the region's scarce water resources. The proposal was, in all likelihood, a fraud perpetrated by an unscrupulous entrepreneur seeking to raise money for a lending scheme. PRC internet users, accustomed to the pervasiveness of "fake news" on the Chinese-language internet, quickly sniffed out the falsehood, and buried the Red Flag River proposal under a mountain of online skepticism.

The corrected information, however, never made its way back into English-language reporting, leaving the narrative of a massive PRC water diversion project unchallenged. This "threat inflation" dynamic, wherein misinformation about PRC engineering or technical achievements originates on the Chinese-language internet, and is spread widely and largely unchallenged by credulous foreign-language outlets, reflects a tendency of foreign media to overlook crucial background details, including whether the projects have the backing of official PRC government agencies or are actually feasible to implement. This tendency towards 'threat inflation'—which has also affected coverage of everything from PRC submarine propulsion breakthroughs to laser weapons—reflects a lack of China literacy among media and strategic communities in countries concerned about the PRC, and means that policymakers and analysts need to exercise even greater caution when relying on open-source media reporting for information about PRC technology and development projects.

From Misinformation to False Peril: A Vicious Cycle

The cycle of threat inflation surrounding the Red Flag River Project began with local media in the PRC. The project, directed by Wang Hua, professor at Tsinghua University and scientist at the Chinese Academy of Engineering, proposes to solve the problem of water shortage in the PRC's northwest by diverting water from the Yarlung Tsangpo (Brahmaputra), Salween, Mekong, Yangtze, Yalong and Dadu Rivers toward more arid land, thereby developing new agricultural areas and boosting the PRC economy. Hype around the project began to build with the launch of a promotional video for the project on November 1, 2017, followed soon thereafter by seminars held by a group academics and technical experts associated with the project in November 2017 and January 2018 [1]. The news of the project gained momentum on the Chinese-language internet as major PRC media outlets picked up on the story, commenting on the Red Flag River Project's potential for eliminating drought in the northwest while preserving the natural ecological environment of the region ([Xinhua](#), January 18, [China Times](#), June 4).

The "threat inflation" cycle moved to its second step when English-language media picked up on the story, in most cases without going to the trouble to verify whether the project had any substantial PRC government backing. One example was an October 2017 article by the South China Morning Post, which reported on the Red Flag River Project in the context of PRC plans to build an experimental water diversion tunnel in Southeast China, as a first step toward a longer tunnel running from Tibet to Xinjiang. While the article quotes researchers involved in the proposal, such as Zhang Chuanqing of the Chinese Academy of Science, it is ambiguous as to whether the PRC government actually is involved in the project in any way ([SCMP](#), October 17, 2017). Although The Global Times, another PRC-based English-language newspaper, responded to the story two weeks later with PRC foreign ministry spokeswoman Hua Chunying's denials that China was preparing for such a tunnel, the correction was spread far less widely than the initial story ([Global Times](#), October 31, 2017).

The Indian press's response to the story demonstrated the potential geopolitical impact of such Sino-foreign "threat inflation". Indian commentary tended to rely on the South China Morning Post story as the basis of their own reporting, rather than attempting to verify or correct the record. When the Red Flag River Project was first announced, one Indian journalist wrote, "China is working on an incredibly ambitious water diversion project involving the Brahmaputra, one of India's largest rivers, which may become another point of tension between the two Asian neighbours" ([Quartz India](#), October 30, 2017). Even nearly a year after the PRC Foreign Ministry's denial, major Indian newspapers continued to run credulous stories, with one outlet commenting in an article about the Red Flag River Project that "India already feels threatened by China's projects in the Tibetan plateau to reduce river flows into India. Diversion of the Brahmaputra is an idea China does not discuss in public, because it implies devastating India's northeastern plains and Bangladesh, either with floods or reduced water flow" ([Economic Times](#), July 13, 2018).

The Indian press's treatment of the project also reflected the final step in the threat inflation cycle: prominent foreign-language outlets' failure to debunk or follow, even after further investigation by specialists or Chinese-language media revealed the initial information to be erroneous. In the case of the Red Flag River Project, soon after the initial surge of publicity following its announcement, scientists and academics in the PRC took to the internet to point out its physical impracticality, including its proposition for a "self-flowing water transfer" system, and its designers' plans to build large tunnels in areas at high risk for earthquakes and landslides. Some reports noted that even the Chinese Ministry of Foreign Affairs and the Chinese Ministry of Water Resources denied having any connection to the Red Flag River Project ([DW News](#), April 11). Other skeptics pointed out the questionable relationship between the Red Flag River project and its financier and sole sponsor, a company called "Shanlin Finance" ([Zhihu](#), November 24, 2017, [Science Net](#), February 25, 2018).

As early as 2015, Shanlin—a so-called "peer-to-peer" finance company—ran into trouble with the Shanghai city government, which charged it with false advertising and suspended its operations in October 2017 for violating internet lending restrictions. In April 2018, the Shanghai Police found Shanlin Finance to be responsible for luring 60 billion yuan from investors in an online P2P internet finance campaign, a discovery which led to the arrest of eight company executives, including legal representative and sole shareholder Zhou Boyun, who would later be indicted ([CapitalWatch](#), April 12). Shanlin Finance appears to have used the Red Flag River Project to attract investment and improve its image as a high-tech, high-return charity, so as to gain the trust of elderly investors able to make large donations ([New Tang Dynasty](#), April 26). None of the English-language reporting on the project reflected these subsequent developments, or critically examined the questionable nature of the project's backer, despite the fact that concerns emerged about Shanlin Finance as early as 2015.

Silent Subs and Laser Guns: Threat Inflation and PLA Technological Development

The Red Flag River Project is far from the only recent example of threat inflation. Two other instances demonstrate the same trend: the PLA's purported deployment of a portable laser rifle, and the alleged development of a "pump-jet" propulsion system for PLAN nuclear submarines. In both instances, insufficient fact-checking and an over-reliance on misinformed news sources resulted in an exaggerated picture of PLA capabilities.

In July 2018, the South China Morning Post published a story declaring that "China has developed a new portable laser weapon that can zap a target from nearly a kilometre away," citing researchers and laser weapons scientists

involved in its manufacturing. The article speculates about the weapon's potential use in covert military operations, linking it with complaints from US forces in the Indian Ocean and South China Sea about laser attacks from PRC military bases and vessels ([SCMP](#), July 1). The story was almost immediately picked up by prominent Western media outlets, with alarming headlines such as “China Builds Laser Rifle That Can Remotely Set Fire to People’s Skin” ([The Independent](#), July 2). However, a day after SCMP’s story broke, C4ISRNET—an online publication targeted at US defense and intelligence professionals—described the laser rifle prototype as “a dangerous gimmick at best” in an article by laser safety officer Phil Broughton, who demonstrates why the weapon described by SCMP would be physically impossible to construct safely ([C4ISRNET](#), July 2). Outlets that had trumpeted the initial announcement generally did not follow up with reports that the miracle laser rifle was likely a fraud.

A similar incident occurred with English-language reporting on the alleged invention of a “pump-jet” propulsion system for use in next-generation PLAN nuclear submarines. Such a system would be significantly quieter than traditional propellers, enabling PLAN submarines to travel largely undetected by enemy vessels. The story is largely fueled by another piece in SCMP that cited Chinese Navy Rear Admiral Ma Weiming in an interview with China Central Television in which he claimed the pump-jet propulsion system has already been installed in PLAN nuclear submarines ([SCMP](#), July 4). Had such a system actually been installed in PLAN nuclear submarines, it would have been a groundbreaking revolution in submarine technology indicating that PLAN capabilities were far ahead of the US Navy, which would have huge implications for US military and defense strategy. If it weren’t enough that PRC media outlets failed to catch the mistake, the story was subsequently reported on in reputable foreign-language news sources like *The National Interest* ([July 6](#)), which cited SCMP and repeated the misinterpretation of the original interview with Admiral Ma [2].

Conclusion

The cycle of “threat inflation” by English-language media has important implications for US policymakers, particularly those concerned with PLA technological advancements. Although government analysts and policymakers have a range of classified sources to draw on in assessing PLA capabilities and intentions, much analysis still relies heavily from open-source reporting. A general lack of PRC literacy, especially among media and strategic communities in countries concerned about the PLA, means that policymakers and analysts need to exercise a great deal of caution and judgement when relying on open source reporting for information about PRC technology and development projects.

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Notes

[1] See the promotional video for the “Red Flag River” project here:

<https://tv.sohu.com/v/dXMvMjY5NzQ2Lzk0NDQzNjA1LnNodG1s.html>

[2] For a breakdown of the submarine rimdrive debate, see:

<https://plarealtalk.com/lost-in-translation-how-one-chinese-submarine-breakthrough-was-mistaken-for-another-5bfd07d58004>