Working Paper

Convergent and Divergent U.S.-China Interests

Designing 'Win-Win' Alternatives: Test of Concept

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Abstract

The aim of this "test-of-concept" document is to develop several portfolios of possible deals, bargains, or arrangements between the U.S. and China that: (a) illustrate their convergent and divergent interests (including both security and economic interests); (b) suggest how their convergent interests can be enhanced for their mutual benefit; (c) illustrate how their divergent interests might be mitigated by reciprocal concessions that (together with (b) above) can produce "win-win" outcomes that both sides would view as preferable to present circumstances; and (d) are potentially negotiable, verifiable, and sustainable.

Based on our preliminary work, we assess that several potential "win-win" outcomes can be reached by the United States and China through reciprocal concessions, such as U.S. reductions in arms sales to Taiwan, while China reciprocates by deferring sovereignty issues in the South China Sea (SCS) and instead agrees to vest SCS mineral and other resources in a multinational holding company whose ownership is shared among China and other claimant countries.

The report should be of interest to U.S. and Chinese foreign affairs and defense policymakers who are involved in managing the U.S.-China bilateral relationship. This research was sponsored by a grant from a private foundation.

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Tables

ADIZ	Air Defense Identification Zones
CCP	Chinese Communist Party
CFIUS	Committee on Foreign Investment in the United States
CNOOC	China's National Offshore Oil Company
CRF	China Reform Forum
DJIA	Dow Jones Industrial Average
DMZ	Demilitarized Zone
EEZ	Exclusive Economic Zone
EIA	United States Energy Information Administration
EU	European Union
FDI	Foreign Direct Investment
GDP	Gross Domestic Product
HEU	Highly Enriched Uranium
IPO	Initial Public Offering
M&A	Mergers and Acquisitions
PLA	People's Liberation Army
PSI	Proliferation Security Initiative
RMB	Renminbi
ROK	Republic of Korea
S&P	Standard & Poor's
SCS	South China Sea
SOE	State-Owned Enterprises
TPP	Trans-Pacific Partnership
UNCLOS	United Nations Convention on the Law of the Sea
USCBC	United States China Business Council
USG	United States Government
WMD	Weapons of Mass Destruction
XJP	Xi Jinping

1. Introduction: Developing "Win-Win" Portfolios

The aim of this "test-of-concept" document is to develop several portfolios of possible deals, bargains, or arrangements between the U.S. and China that: (a) illustrate their convergent and divergent interests (both security and economic interests); (b) suggest how their convergent interests can be enhanced for their mutual benefit; (c) illustrate how their divergent interests might be mitigated by reciprocal concessions that (together with (b) above) can produce "win-win" outcomes that both sides would view as preferable to present circumstances; and (d) are potentially negotiable, verifiable, and sustainable.

Based on our preliminary work, we assess that several potential "win-win" outcomes can be reached by the United States and China through reciprocal concessions, such as U.S. reductions in arms sales to Taiwan, while China reciprocates by deferring sovereignty issues in the South China Sea (SCS) and instead agrees to vest SCS mineral and other resources in a multinational holding company whose ownership is shared among China and other claimant countries. [1]

This broad concept and a preliminary outline of an appropriate method for implementing it resulted from discussions in 2011-2012 between RAND and our long-time collaborators in the China Reform Forum -- a research entity associated with China's Central Party School.[2] The intervening years since 2012 have been devoted to further planning for the project, to initial and longer-term fund-raising, and to drafting this document. The document represents an initial effort to test how the motivating idea might be implemented. It is to be expected that implementation may involve substantial changes, additions, and subtractions once the full-scale project gets underway.[3]

The illustrative portfolios and the methodology applied to produce them are viewed as part of an iterative process intended to elicit comments, additions, subtractions, revisions, or replacements which, through further iterations, will help to accomplish these objectives. This document also includes as Appendix C a questionnaire instrument intended to assist in assessing the value of each portfolio.

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[1] See Appendix B for details about this and other examples of reciprocal concessions that might enable win-win outcomes to be realized.

[2] RAND and the China Reform Forum (CRF) held 12 consecutive annual conferences between 1998 and 2012 that addressed security and economic issues of concern to both the U.S. and China. Venues for the annual conferences alternated between Beijing and Santa Monica. Scholarly papers were written for the conferences by experts from CRF and RAND, as well as others invited from government and academic institutions in both countries. Conference papers and discussant remarks were published by both RAND and CRF.

[3] For various institutional reasons, RAND's collaborating partners will be the Institute for Governance Development -- new unit in the Central Party School. It is intended that the collaborating institutions will be advised by a small, high-level group of former cabinet-level or state-council level individuals whose distinction and experience will contribute to access and influence on public policies in China and the U.S.

2. Method and Sequence

The method used to formulate the portfolios consists of four steps:

- Step 1 begins with an illustrative but not exhaustive inventory of twenty-four convergent and divergent U.S. and Chinese interests and issues (see Appendix A). The inventory is sub-divided between equal numbers of: security and economic components, each of which includes convergent as well as divergent interests. This illustrative inventory is based on public sources -- including government, media, public blogs, the authors' personal contacts, and the authors' own judgments as one source. Considerable expansion of the inventory is expected as the project proceeds.
- Step 2 combines one or two divergent interests from the inventory with a similar number of convergent interests -- including both economic and security interests in the mix. Selection criteria encompass salience as well as measurability.
- Step 3 attempts to quantify the two sides' respective gains where their interests converge, and the respective net losses resulting from their reciprocal concessions where interests diverge;
- Step 4 seeks to capture the qualitative aspects of the respective gains and losses through a questionnaire designed to elicit respondents' opinions and judgments about each portfolio and its component parts. To test this approach, the questionnaire has been administered to a small panel of five China experts in China and the U.S.

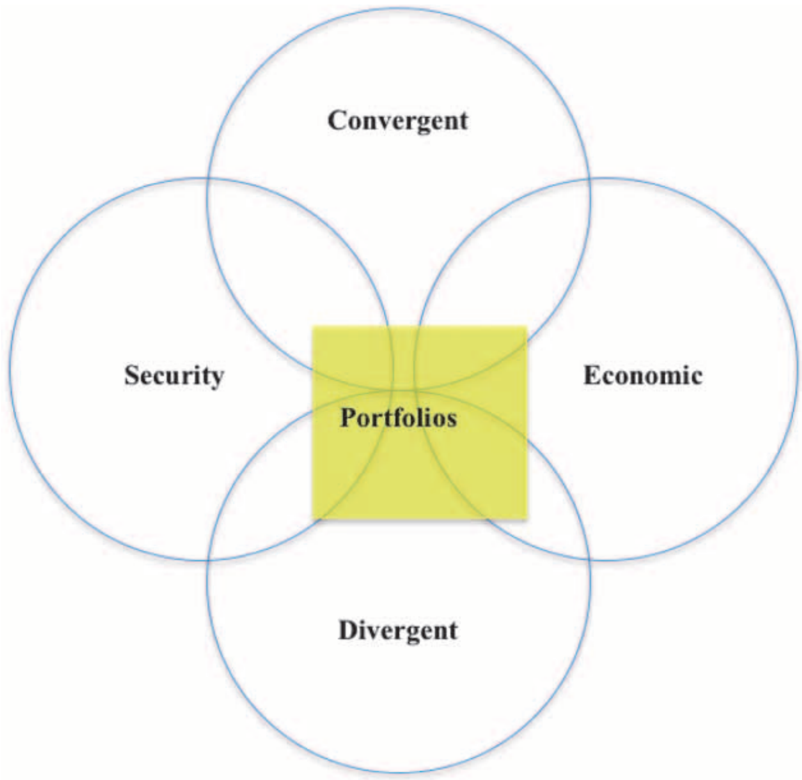
We view this methodology as preliminary and subject to modifications and improvements as the project proceeds. Our focus on security and economic interests is based on their salience and relative tractability. We acknowledge neglect of other political and societal interests and issues not because they are less important, but because they are less tractable and perhaps less finite than the economic and security interests that we address. We also recognize that evaluation of the illustrative portfolios, or alternative ones that may emerge, may, in the event, be dominated by political or immediate negotiatory issues that we cannot foresee or allow for.

We also acknowledge without resolving the acute and perhaps disabling obstacle imposed to proceeding along the lines we envisage by mutual distrust and suspicion between China and the U.S. The antecedent long-term collaboration between RAND and the Party School may at least slightly ease this impediment. It assuredly doesn't surmount it.

3. Structuring "Win-Win" Portfolios

The Venn diagram below depicts the relationships represented by the methodology and the illustrative portfolios.

Figure 3.1. Structuring "Win-Win" Portfolios



While neither of the paired circles -- Convergent/Divergent and Security/Economic -- overlaps with the other member of its pair[4], each part of the Security/Economic pairing overlaps with both parts of the Convergent/Divergent pairing. Stated another way, China and the U.S. have economic interests that converge and others that diverge and, similarly, some of their security interests converge, while other security interests diverge. The overlapping square -- framed in yellow in Figure 1 -- indicates how the illustrative portfolios have been structured, and how they might be reconfigured through iterations of the process. As will be discussed next, "win-win" portfolios of convergent and divergent interests offer net benefits to both sides.

[4] However, in N-dimensional space (N>3), it is possible that overlap might occur within each pair, as well as between them.

To assess whether each portfolio meets the "win-win" design criterion or, if it does not, what modifications would enable it to do so, we envisage the following hypothetical exercise:

In the U.S., the President's national security team (whose members include the secretaries of the Treasury as well as State and Defense, and also the chairman of the joint chiefs of staff and senior leaders of the intelligence community), would consider and decide whether the reciprocal concessions (where interests diverge), and enhanced gains (where interests converge) will result in a positive bottom line, or failing this outcome, what modifications would accomplish this aim.

In China, President and Chinese Communist Party (CCP) General Secretary Xi Jinping (XJP), established in 2013 a subcommittee of the political bureau's standing committee whose title and function are similar to those of the national security team in the U.S. XJP chairs this committee, whose members include the People's Liberation Army (PLA) chief, the vice chairman of the central military commission, the ministers of foreign affairs, defense, and finance, and perhaps the president of the People's Bank of China. We conjecture that this committee would engage in a consultative process not less extensive (and in some respects perhaps more so) than that described above for the U.S. national security group, arriving at its corresponding "bottom-line" positions.

The "bottom-line" positions of both the U.S. and Chinese sides would, in turn, provide the basis for discussion and resolution between them.

Research support in both China and the U.S. will be essential to assist the decision makers and decision processes in each country to reach "win-win" outcomes. Toward this end, part of this "test-of-concept" document includes a preliminary quantitative assessment of "cost-exchange ratios"[5] associated with each portfolio's reciprocal concessions, and a qualitative assessment (by means of responses to the questionnaire shown in Appendix C) of whether and to what extent each portfolio meets the "win-win" goal. Additional funding will be needed both in the U.S. and China to provide this research support.

Illustrative Portfolios

We next present three illustrative portfolios reflecting convergent and divergent U.S. and Chinese security and economic interests that might, through negotiations, lead to "win-win" outcomes.

[5] The ratio between the cost incurred by one side in enforcing a restriction on the other side, and the costs imposed on the other side as a result of the restriction.

Portfolio I

Portfolio I considers convergent and divergent U.S. and Chinese economic and security interests in the South and East China Seas, as well as additional economic “sweeteners” that may help to facilitate “win-win” outcomes.

Convergent Interests: Enhancing Mutual Benefits

Although certain Chinese and U.S. security interests diverge in the East- and South-China Seas (see below), the two countries also have economic interests in the Seas that substantially converge.

The currently (or at least potentially) convergent interests entail oil and gas exploration and production in the Seas, as well as maritime fishing. A preliminary quantification of these convergent interests is summarized later in this document, and appears in greater detail in Appendix B. Neglected in this initial document is consideration of other countries’ interests in the Seas which may in turn diverge from those of the U.S. and China, and might therefore complicate the process of the two sides arriving at a win-win outcome.

To enhance the mutual benefits to be derived from the shared interests of China and the U.S., Portfolio I begins by proposing to temporarily defer sovereignty claims, accompanied by explicit recognition that deferral would not in any way prejudice, compromise, or circumscribe existing and future sovereignty claims by China, Japan and Korea, in the East China Sea, and by China, the Philippines, Viet Nam, Brunei, and Taiwan in the South China Sea.

The second component of Portfolio I is establishment of a joint stock holding company (analogous to an Initial Public Offering [IPO] in financial markets) for each of the Seas’ properties. The holding company’s shares would initially be allocated according to a formula that takes into account the gross domestic products (GDP) and populations of the respective claimants, and their financial capacity and willingness to pay for shares. The initial share offerings would include a minimum allotment of shares to all interested parties to assure their participation and “voice.” Both the East- and South-China Sea holding companies would have legal authority to oversee commercial development of oil and gas resources, and of fishing rights and their eutrophic protection in each of the two Seas. Allocation of profits from commercial development of the resources would accord with the governance rules and regulations established by the holding companies.[6]

Divergent Interests: Reciprocating Mutual Concessions

China’s assertion and enforcement of Air Defense Identification Zones (ADIZ) in the 200-mile Exclusive Economic Zone (EEZ) in the two China Seas reflects a core security interest of

[6] Complex details of legal empowerment, capital-generating, and regulatory authority to be subsequently developed by China and the U.S. in consultation with the other claimant governments.

China. But, ADIZ also entails a threat to core interests of US allies in the area and an acute security risk in the Asian region. To allay these risks, Portfolio I proposes major and reciprocal concessions by China and by the U.S. that provide compensatory benefits in return for reciprocal concessions by both countries. For example, China's concession might forgo assertion and enforcement of ADIZs, and restore the normal rules and informational exchanges that apply globally to air and sea commerce, including acceptance of advance notification and conveyance of flight and sailing plans for ensuing transits.

Juxtaposed to this concession, the U.S. would reciprocate with two major concessions intended to benefit China's core interests. The first reciprocal U.S. concession is to relax U.S. export controls on high-tech, dual-use technology products and services that currently are applied on exports to China, but do not apply on exports to non-NATO members of the European Union (EU). This U.S. concession would provide calculable benefits for both China's security interests and its economic interests.

A second component of the reciprocal concessions in Portfolio I entails a formal agreement by China to accord "national treatment"[7] to U.S. and other foreign firms and investments in China, while forgoing the special advantages for "national favorites" that China has sometimes invoked. Associated with this concession, U.S. reciprocity would accord equivalent national treatment to private Chinese firms and Chinese investors in the U.S.[8] Where any of the 50 states within the U.S. offer special tax or other incentives to investors in those states, the federal government would seek by legislation and regulatory means to assure that Chinese investors have access to the same incentives.

Appendix B provides a preliminary quantification of the economic value of the South and East China Seas, as well as the potential economic benefits of ending national favoritism and barriers to market entry in China, and ending U.S. export restrictions on high-technology products to China.

Portfolio II

Portfolio II considers convergent U.S. and Chinese interests in the nonproliferation of weapons of mass destruction (WMD), the ratings and yields of U.S. government bonds, and the status of the Renminbi as a major international currency, alongside divergent interests related to the status and security of Taiwan.

Convergent Interests: Enhancing Mutual Benefits

Among the convergent security interests acknowledged by China and the U.S. is prevention of weapons of mass destruction (WMD) proliferation, especially proliferation of nuclear

[7] In the sense of what erstwhile was referred to as "most favored nation" rights and privileges.

[8] Such equivalent treatment might, for example, be invoked when Committee on Foreign Investment in the U.S. (CFIUS) review of Mergers and Acquisitions (M&A) investments occurs.

weapons. In furtherance of this shared interest, Portfolio II proposes military-to-military sharing of intelligence relating to global traffic in highly enriched uranium (HEU) centrifuges, and to heavy-water reactors which generate plutonium as a by-product. This sharing should include cooperative efforts by both sides to interdict such traffic. Relevant information to be shared would include exercises conducted under auspices of the Proliferation Security Initiative (PSI) and other measures that the U.S. or China have underway or may undertake to prevent or interdict proliferation.

One of the convergent economic interests between the two countries relates to the ratings and yields of U.S. government bonds, of which China is the largest foreign holder.[9] Both governments have a common interest in limiting the growth of this debt, which currently exceeds $18 trillion. Limiting its growth will contribute to stronger debt ratings, and maintaining or increasing the debt's market value. Consequently, the two sides' current interests converge if and when new debt is incurred or prior debt is refinanced. Mutual acknowledgment of this convergent interest will contribute to enhancing it.

The potential role of China's currency (yuan, or renminbi [RMB]) as a major international reserve currency is often viewed in each country as an issue where their interests diverge: that is, reducing the dollar's role as the world's principal reserve currency would be contrary to U.S. interests, while perhaps viewed as advantageous by China. Using a different optic, a sharing of this role between the dollar and RMB can be viewed as a convergent interest. For example, the unwanted and sometimes adverse spillover effects on other countries that may result from quantitative monetary easing in the U.S. may be avoided or at least modulated if the reserve currency function were shared with the RMB. Portfolio II would include recognition of this (at least potentially) shared interest.

Divergent Interests: Reciprocating Mutual Concessions

China regards American military sales to Taiwan as both a political affront, and a security threat to eventual reunification with the mainland. The U.S. regards these sales as a legal obligation under the Taiwan Relations Act. Portfolio II includes reciprocal concessions by both parties to ease these divergent interests.

In this portfolio, the U.S. would, for example, reduce annual military sales to Taiwan by 25%, limiting both defensive systems (e.g., Aegis defense systems) and offensive systems (F-15/F-22). Reciprocally, China would substantially reduce by 50% both its coastal missile deployments and its (verifiable) production of short- and mid-range missiles.

[9] China holds more than $3 trillion, nearly 20% of publicly held U.S. government debt.

Portfolio III

Portfolio III focuses on convergent U.S. and Chinese interests in North Korea, and a mix of convergent and divergent interests regarding the status and security of Taiwan.

Convergent Interests: Enhancing Mutual Benefits

A potential area of convergent U.S.-Chinese interests is coordinated communication and pre-planning by the U.S. and China for a scenario in which disorder, fragmentation, or collapse might occur in North Korea, weapons of mass destruction need to be secured, and stability established.

To enhance the mutual benefits derived from this shared interest, the U.S. and China would, in this scenario, try to reach several key understandings (including, of course, South Korea's acceptance of them). The understandings relate, for example, to introduction and deconfliction of military forces in North Korea, dismantling North Korean WMD, disarmament of North Korean forces, establishment of buffer zones, the ultimate disposition of South Korean and U.S. military forces, and the status of the U.S.- Republic of Korea (ROK) defense treaty.

To avoid impairing the special relationship between North Korea and China, a combination of diplomatic efforts might be pursued to create an environment for fuller discussion of U.S.-China equities pertaining to North Korea. The discussion would seek to develop a shared vision of how a possible North Korean collapse could best be managed, and what its outcome might be. China also might be participating in U.S.-ROK-China exercises that aim to work out the details of multilateral humanitarian relief operations, or operations relating to elimination of weapons of mass destruction in the peninsula.

There may be important differences on this matter between the views of "economic/financial" and "PLA/military" groups within China. For example, the "economists" may welcome the improved long-term economic opportunities associated with reunification of the Korean peninsula, and the prospect of ending China's subsidies to North Korea. On the other hand, the "PLA/military" group might be most concerned about U.S. forces north of the Demilitarized Zone (DMZ), a possible post-reunification U.S. presence in the peninsula, and the status of the U.S.-ROK defense treaty post-unification. A better understanding of these differences would be developed through consultations with economists, PLA, and relevant Chinese security experts and scholars, as well as counterpart groups and interests in the U.S.

Divergent Interests: Reciprocating Mutual Concessions

The dispute over Taiwan reflects and engenders divergent U.S. and Chinese interests. On the one hand, China has declared that any Taiwanese declaration of independence would immediately lead to conflict and reunification by force. The continued coastal build-up of Chinese missiles targeted on Taiwan, accompanied by repeated affirmations of Chinese readiness to launch in response to provocative measures by Taiwan, constitute part of a coercive strategy that China might employ to resolve the issue of Taiwan's status by force.

U.S. policy also opposes a unilateral Taiwanese declaration of independence. On the other hand, policy (e.g., the Taiwan Relations Act, which obligates the U.S. to assist Taiwan in its self-defense) and historical precedent (e.g., the deployment of two carrier battle groups during the Third Taiwan Strait Crisis of 1996) could impel U.S. military involvement in a crisis or war.

A potential bargain might be struck in which Chinese force reductions opposite Taiwan are reciprocated by a clarification of U.S. policy on Taiwan. The clarification might, for example, confine the U.S. obligation to assist Taiwan in its self-defense to countering unilateral Chinese actions to change the status quo by force, while noting that the obligation would be mooted in the event of a unilateral Taiwanese declaration of independence from mainland China. Such a declaration could serve as a stronger deterrent both for unilateral Chinese military action, and for Taiwanese declaration of independence, thereby enhancing stability in the Taiwan Strait until a more durable, peaceful solution to Taiwan's status can be found.

Discussions with Chinese interlocutors on confidence building measures should include the permanence of missile redeployments away from, or their deactivation from, adjacent coastal areas, announcements regarding movements of missiles into or out of adjacent coastal areas, along with agreed verification by "national technical means."

There are a number of potential inducements that might find favor with the "economist/financial" group. The U.S. might sign and ratify the United Nations Convention on the Law of the Sea (UNCLOS), which China signed in 1996, and for which there is substantial support from the U.S. Navy and most of the U.S. policy community, although the "PLA military" and other elements in China prefer not to have the U.S. as a full party to UNCLOS. China might be invited to join the Trans-Pacific Partnership (TPP) Agreement or it might simply be informed and consulted as TPP moves toward completion.

In this chapter, we discuss the quantification of benefits and costs related to the first two portfolios described in the last chapter.

Portfolio I

1.1 The Economic Value of South and East China Seas

The U.S. Energy Information Administration (EIA), and China's National Offshore Oil Company (CNOOC), have published separate estimates of proven and probable oil and gas reserves in the two Seas. Both sets of estimates are extremely large -- although CNOOC's estimates substantially exceed those of EIA. Additionally, the South China Sea is an especially rich fishing ground -- sales amounting to about $21.75 billion annually, 10% of global sales.

Using reasonable upper and lower bounds for both crude oil prices ($50-$70 per barrel)[10] and natural gas ($10-15 per million cubic feet), and the respective CNOOC and EIA estimates of proven and probable oil and gas reserves, we calculate the overall value of natural resources in the South and East China Sea (see Table 5.1 and Appendix B).

Table 5.1. Economic Valuation of the East & South China Seas (Billions of U.S. Dollars)

	East China Sea	South China Sea
	Value of oil reserves (in Billion USD)	
lower bound	10	250
mean	4,604	2,445
upper bound	11,200	8,750
	Value of natural gas reserves (in Billion USD)	
lower bound	10	700
mean	1,054	3,281
upper bound	3,750	7,500
	Annual fishing revenues (in Billion USD)	
	n/a	21.75

Table 5.1 further illustrates China's strong interest in the economic potential of the region. The value of oil reserves in the two Seas is between $2.5 trillion and $4.6 trillion, and gas

[10] The international benchmark price of Brent crude was $37 per barrel on December 31, 2015 -- an extraordinarily low price that is expected to rise in 2016.

reserves are between $1.1 trillion and $3.3 trillion. The commercial profitability of these reserves depends, of course, on costs of recovery, which we have not yet been able to assess.

Whether these valuations are likely to make China more or less amenable to a solution of the sovereignty problem depends on how much impedance to realizing these potential gains is presented by failing to arrive at a solution. If impedance is negligible, incentives for resolution would be weak; and conversely, if impedance is substantial, incentives for resolution would be strong. Portfolio I suggests a way of avoiding this dilemma.

1.2 China's "national favorites" and barriers to market entry

According to the American Chamber of Commerce in Shanghai, U.S. firms have been losing import shares in China in the past decade, thereby incurring significant opportunity costs by the American economy. The Chamber asserts that *"China's potential (market) is so great that capturing an additional one percent of the China import market translates to $12.6 billion in additional exports."* Additionally, more than 74,000 *mainly* high-skilled, high-wage jobs are associated with these forgone exports. Allowing for inflation since these estimates were made in 2011, the estimate for 2015 is $13.2 billion. Our review of the report suggests these estimates are reasonable (see Appendix B). Portfolio I would redress and remedy this situation, enhancing gains realized by the U.S.

1.3 U.S. Restrictions on High-Tech Exports to China

Given the large markets and business prospects, and the particular demand for high-technology products, U.S. businesses increasingly look to China as a major export market. However, several industries are particularly constrained by the export restrictions the U.S. government places on dual-use, high-technology products, thus putting U.S. companies at a significant competitive disadvantage in the Chinese marketplace.

The main criticism of current export controls is that they are static and fail to recognize that European and Japanese competitors are thereby enabled to supply a variety of goods, services and technologies that they were not able to provide in the past. American companies are prevented from delivering the corresponding products to Chinese business partners.

In response, the American Chamber of Commerce in Shanghai claims that U.S. export controls are upholding national security interests under the assumption that the U.S. remains the only viable supplier of critical dual use materials and components in terms of quantity and price.[11] However, this is no longer valid. U.S. export controls simply present administrative hurdles for Chinese companies trying to do business with American companies.

[11] "Request for Public Comments on the Effects of Export Controls on Decisions to Use or Not Use U.S.-Origin Parts and Components in Commercial Products and the Effects of Such Decisions" issued by the Bureau of Industry and Security, published in the Federal Register (Vol. 74, No. 2) on January 5, 2009.

Using data from recent surveys conducted by the American Chambers of Commerce in Shanghai and Beijing, and the Bureau of Industry and Security in the U.S. Department of Commerce, we estimate that annual sales in China lost by U.S. firms are currently between $635 million and $700 million (see Appendix B, for detailed calculations).

We conclude that reform of the U.S. export control system is warranted. Portfolio I would encompass such reform.

Portfolio II

2.1 Relation between U.S. debt and bond valuations

U.S. government debt and its ratio compared to GDP soared during and following the Great Recession of 2008. As a consequence, a slight down-grading of U.S. Government (USG)-10 year bonds (from AAA to AA+) by one of the three major rating agencies Standard & Poor's (S&P) ensued, resulting in a decline in the market value of the $18 trillion of total U.S. debt. China's holdings of nearly 20% of this total debt experienced a corresponding decline. Although the decline was small (less than 5%) and temporary (the latter due to the countervailing effects of U.S. monetary policy), it signaled the convergent interest between China and the U.S. in sound, prudential management of U.S. sovereign debt. Portfolio II reflects this shared interest.

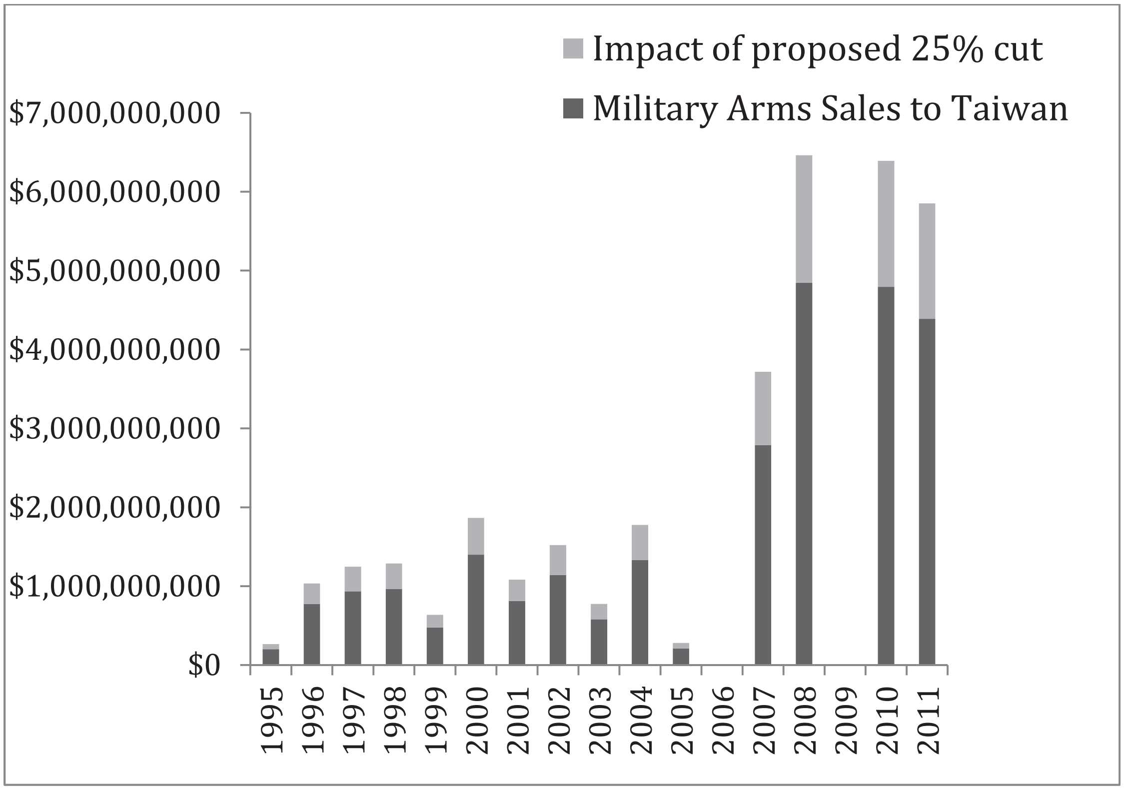
2.2 Reducing military sales to Taiwan

The U.S. has a binding legal obligation -- under the Taiwan Relations Act -- to provide support for Taiwan's defense. In part, this obligation is provided through arms sales. Table 5.2 reports the scale of these sales from 1990 to 2011. We estimate that a 25% reduction in recent sales would have a minor economic impact in the U.S. (between $1 billion and $1.5 billion annually, see Figure 5.1). Of course, the political impact of such a reduction would be substantial, as well as extremely difficult to quantify, as would be the possibility of offsetting changes in other dimensions of U.S, policy, such as joint military exercises with Taiwan. Portfolio II reflects this dilemma.

Table 5.2. U.S. Arms Sales to Taiwan (in Millions of U.S. Dollars)

Year	*Military Arms Sales to Taiwan*	*Impact of proposed 25% cut*
1990	17,649	4,412.25
1991	372	93
1992	7,706	1,926
1993	2,184	546
1994	34,367	8,591
1995	267	66.75
1996	1,034	258.50
1997	1,247	311.75
1998	1,287	321.75
1999	637	159.25
2000	1,866	466.50
2001	1,082	270.50
2002	1,521	380.25
2003	775	193.75
2004	1,776	444
2005	280	70
2006		
2007	3,717	929.25
2008	6,463	1,615.75
2009		
2010	6,392	1,598
2011	5,852	1,463

Figure 5.1. Impact of a 25 Percent Reduction in U.S. Military Sales to Taiwan, 1995-2011



The remaining two issues connected with Portfolio II will require additional research to be done in later phases of this endeavor, following this initial test-of-concept phase. These two issues are noted below, along with references to prior research likely to be useful in pursuing them.

2.3 Using military intelligence-sharing to limit illicit global traffic of HEU

The following are among the sources the study team identified that may be useful in estimating the benefits and costs associated with military intelligence sharing to limit illicit global trafficking of highly enriched uranium:

- Albright, David, and Corey Hinderstein. "Uncovering the Nuclear Black Market: Working toward closing gaps in the international nonproliferation regime." Washington, DC: Institute for Science and International Security (2004).
- Zaitseva, Lyudmila, and Kevin Hand. "Nuclear Smuggling Chains: Suppliers, Intermediaries, and End-Users." *American Behavioral Scientist* , Vol. 46, No. 6, 2003, pp. 822-844.
- Civiak, Robert L. "Closing the gaps: Securing high enriched uranium in the Former Soviet Union and Eastern Europe." Federation of American Scientists (2002).

2.4 Facilitating China's RMB as a potential major global reserve currency

The following are among the relevant sources we identified related to the issue of facilitating China's RMS as a potential major global reserve currency:

- McKinnon, Ronald. "Why China Should Keep Its Dollar Peg." *International Finance* 10.1 (2007): 43-70.
- Roubini, Nouriel. "Why China Should Abandon Its Dollar Peg." *International Finance* 10.1 (2007): 71-89.
- Luo & Jiang 2005. "Currency Convertibility, Cost of Capital Control and Cap Account Liberalization in China." Available at http://online.sfsu.edu/jcps/past%20issues/JCPS2005a/5%20Currency%20convertibility_Luo.pdf

This chapter has provided a high-level overview of the sorts of considerations that are involved in quantifying the benefits and costs of different portfolios of convergent and divergent interests.

6. Concluding Comments

This document has described a methodology for formulating alternative combinations or portfolios for packaging convergent and divergent interests of the U.S. and China that both sides could view as “win-win” outcomes, compared with their present circumstances. We emphasize that the methodology is preliminary and subject to modifications and improvements as the project proceeds. Our focus on security and economic interests is based on their salience and relative tractability, and at least partial quantifiability. We further acknowledge neglect of other political and societal interests and issues not because they are less important, but because they are less tractable and perhaps less finite than the economic and security interests that we address. We also recognize that evaluation of the illustrative portfolios, or alternative ones that may emerge, may, in the event, be dominated by political or immediate negotiatory issues that we cannot foresee or allow for.

Appendix A: Selected List of Convergent and Divergent Interests Between U.S. and China

This appendix presents a preliminary list of convergent and divergent U.S. and Chinese interests that the study team developed as source material for constructing illustrative portfolios of possible "win-win" deals, bargains, or arrangements between the U.S. and China.

On many key issues, the core interests of the U.S. and China converge and harmonize; on other key issues, their interests diverge and conflict. This applies both to security issues and economic issues. A detailed but not complete list of the convergent and divergent interests appears below.

For both sets of issues, we seek to quantify the costs imposed on each side by the divergences, and the benefits conferred by the convergences, including in both cases the costs that may be incurred by China and the U.S. in asserting their divergent interests, and the values they acquire through the enhanced benefits they can realize from the convergent interests.

We thus try to quantify the "cost-exchange ratios" relating both to convergent and divergent interests: that is, the ratio between the costs incurred and the costs or benefits conferred or imposed.

Where monetary values for the costs and benefits are elusive or insufficient (as they frequently are), we would seek to find other ways of quantifying the respective burdens and benefits, as described in the preceding parts of this document.

In the <u>security</u> realm, examples of <u>convergent</u> interests include:

- protection of sea lines of communication (SLOCs) from the Straits of Hormuz through the Indian Ocean, the Straits of Malacca, and the South China Sea;
- denuclearization of North Korea, including cessation of its nuclear testing;
- coordinated communication and planning if serious disorder or collapse occurs in North Korea;
- communication and coordination in countering terrorism and countering WMD proliferation;
- assuring that Iran's ostensible pursuit of nuclear energy is disabled from threshold uranium enrichment or plutonium acquisition to produce nuclear bombs;
- avoiding destabilizing actions or changes in the Taiwan Straits.

In the <u>security</u> realm, the U.S. and China also have sharply <u>divergent</u> interests, including:

- continued U.S. sales of (ostensibly defensive) arms to Taiwan;
- continued coastal build-up of Chinese missiles targeted on Taiwan;
- rapid ($\cong$15%) annual growth of China's military spending, and enhanced naval and air capabilities focused on area-denial;

- China's heavy subsidization (via fuel and food) of North Korea's "military-first" priorities;
- the U.S. "pivot" toward redeployments in the Asia Pacific area and, from China's viewpoint, U.S. "interventionist" support for Japan in Senkaku-Diaoyu dispute, and for Vietnam, Philippines, and Brunei in Spratly's dispute;
- cyber-security threats and attacks (bilateral), but asymmetrically targeted (by China) on U.S. companies and civil infrastructure.

In the economic realm, examples of convergent interests include:

- sustained economic growth in both countries because slower growth in either country negatively affects growth in the other (e.g., when GDP growth in China or U.S. veers appreciably from prior trends, the Dow Jones Industrial Average [DJIA] and S&P 500 typically react accordingly);
- free and open international trade and investment markets (notably, when China or the U.S. occasionally departs from these precepts, the convergent interest often becomes a divergent one);
- increased supplies of both fossil fuels and renewables, as well as lower and stable prices for them;
- reciprocal Foreign Direct Investment (FDI) and portfolio investment in China by U.S. companies, and by Chinese companies in U.S.;
- quality control of traded goods and services (protection of intellectual property rights appears below as a divergent interest, although arguably it might be viewed as a convergent one);
- avoiding or mitigating international health risks from communicable disease and environmental pollution.

The U.S. and China also have divergent economic interests, including:

- Chinese access to dual-use or security-related technology through acquisition of or investment in U.S. high-tech companies (cf. CFIUS);
- U.S. FDI in "strategic" industries or sectors (including natural resources) in China;
- U.S. incentives to encourage emigration to U.S. of skilled science and technology Chinese, whether trained in U.S. or China;
- bilateral export controls to restrict U.S. access to key exports from China (e.g., rare earths), and Chinese access to sought-for technology exports from U.S.;
- more rigorous protection of intellectual property rights (e.g., patents, corporate brands & products, cf. connection between this divergence and cyber-security divergence referred to above in discussion of security issues);
- China's aim to make the yuan a (or the) principal international reserve currency, displacing U.S. dollar or reducing its predominance.[12]

[12] This might become a convergent rather than divergent interest with some further thought and reconfiguring. The research may also uncover other possibilities for shifts between the categories.

We have deliberately omitted societal and political issues -- including, for example, the rule of law and human rights -- on which U.S. and Chinese interests often sharply diverge. Their omission is based on practical considerations relating to keeping the project within manageable bounds of funding and timing, as well as avoiding the difficulty of quantifying these issues.

Clarifying comment on inventory

The above list can be thought of as a "gross assessment" of divergent and convergent interests. This "test-of-concept" project can be viewed as a series of "net assessments" involving illustrative combinations or Portfolios of convergent and divergent interests that can generate positive-sums for the U.S. and for China: namely, possible "win-win" packages, rather than zero-sum exchanges. The Portfolios need also to be assessed in terms of their negotiability, verifiability, sustainability, and their compatibility with alternative scenarios of the global security and economic environments.

Appendix B: Quantification Examples for U.S.-China Convergent and Divergent Interests

This Appendix provides additional detail on the quantification of the benefits and costs associated with different components of the illustrative portfolios discussed in Chapter Five.

Portfolio I

1.1 Estimating the economic value of the South and East China Seas

Control over both the South and East China Seas continues to be the subject of heated debates in Asia. A possible resolution may lie in temporarily shelving sovereignty claims, and instead focusing on the potential economic gains that China and the U.S. can realize by joint development of the area. The rationale behind this strategy rests on the richness of natural resources in both Seas, while the sovereignty disputes have prevented all claimants from capitalizing on these potential gains.

The U.S. Energy Information Agency estimates proven and probable reserves of 200 million barrels (bbls) of oil and 1-2 trillion cubic feet of natural gas in the East China Sea.[13] Proven and probable resources in the South China Sea are estimated to be even greater: 11 bbls of oil and 190 trillion cubic feet of natural gas.[14]

For both areas, estimates published by the Chinese National Offshore Oil Company indicate that natural resource reserves may exceed EIA's calculations by several orders of magnitude. For the East China Sea, CNOOC reports oil reserves as high as 70-160 bbls and natural gas reserves as high as 250 trillion cubic feet. For the South China Sea, CNOOC estimates oil reserves up to 125 bbls and natural gas reserves around 500 trillion cubic feet. This further illustrates China's strong interest in the economic potential of the region. Whether this makes it more or less amenable to a solution depends on how much impedance to realizing these potential gains is presented by the failing to arrive at a solution. Portfolio I suggests a way of avoiding this dilemma.

In addition, the South China Sea in particular is known to be a rich fishing ground, supplying about 10% of global fishing sales, a market worth as much as $217.5B per year.[15]

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[13] EIA Country Reports 2014 - East China Sea, available at http://www.eia.gov/countries/regions-topics.cfm?fips=ecs

[14] EIA Country Reports 2013 - South China Sea, available at http://www.eia.gov/countries/regions-topics.cfm?fips=scs

[15] Dupont, Alan, and Christopher G. Baker. "East Asia's maritime disputes: fishing in troubled waters." The Washington Quarterly 37.1 (2014): 79-98.

Table B.1. Economic Valuation of the China Seas

	East China Sea	South China Sea
	Value of oil reserves (in Billion USD)	
lower bound	$ 10	$ 250
mean	$ 4,604	$ 2,445
upper bound	$ 11,200	$ 8,750
	Value of natural gas reserves (in Billion USD)	
lower bound	$ 10	$ 700
mean	$ 1,054	$ 3,281
upper bound	$ 3,750	$ 7,500
	Annual fishing revenues (in Billion USD)	
	n/a	$ 21.75

Furthermore, we propose to split the proceeds between claimant countries in a way that represents their size and economic strength. Using both GDP and population shares, we come to an illustrative allocation shown in Table B.2.

Table B.2. Revenue Shares from exploiting the natural resources in the East and South China Sea (in Billion USD)					
Country	*China*	*Vietnam*	*Philippines*	*Taiwan*	*Brunei*
Shares	90.75%	1.65%	2.89%	4.53%	0.18%
Pop Shares	85.77%	5.91%	6.81%	1.48%	0.03%
East China Sea					
Low GDP	$18,149.94	$ 329.25	$ 578.87	$ 906.22	$ 35.72
Mean GDP	$ 790.69	$ 14.34	$ 25.22	$ 39.48	$ 1.56
High GDP	$ 13.57	$ 246.12	$ 432.70	$ 677.40	$ 26.70
Low Pop	$ 17.15	$ 1.18	$ 1.36	$ 295.59	$ 0.05
Mean Pop	$ 747.32	$ 51.49	$ 59.35	$ 12.88	$ 233.00
High Pop	$12,823.01	$ 883.64	$ 1,018.40	$ 220,95	$ 4.00
South China Sea					
Low GDP	$ 881.86	$ 16.00	$ 28.13	$ 44.03	$ 1.74
Mean GDP	$3,407.65	$ 61.82	$ 108.68	$ 170.14	$ 6.71
High GDP	$14,766.56	$ 267.88	$ 470.96	$ 737.29	$ 29.06
Low Pop	$ 833.50	$ 57.44	$ 66.20	$ 14.36	$ 0.26
Mean Pop	$3,220.76	$ 221.95	$ 255.79	$ 55.50	$ 1.00
High Pop	$13,956.71	$ 961.77	$ 1,108.43	$ 240.49	$ 4.35

Aside from the important political dimension of the issue, another caveat needs to be added to Portfolio I’s proposed solution to the sovereignty impasse. While the reserves of both oil and natural gas are large (regardless of the disparities between American and Chinese estimates), their commercial viability is unknown because the deposits are deep in the ocean. Fully exploiting the resources may be very costly, and may also have negative impacts on fishing activities and biodiversity in the area. An advantage of the proposed holding companies is that these investment costs can be shared both among the equity holders and other potential participants.

1.3 National Favoritism in China and barriers to market entry

China is a major present and future market, hence, a magnet attracting American companies to pursue growth opportunities. The American Chamber of Commerce in Shanghai conducted a survey among its member organizations in 2011, trying to assess China's business climate and the competitiveness of American companies in the market.[16]

According to AmCham, that U.S. firms have been losing import shares in China in the past decade, imposes a significant cost on the American economy: *"China's potential is so great that capturing an additional one percent of the China import market translates to $12.6 billion in additional goods exports and more than 74,000 U.S. jobs."* Accounting for inflation, in 2015 this figure could be as high as $13.2 Billion.[17] Moreover, most of the created jobs would relate to exports of high-technology goods and services, and would therefore be high-skilled, high paying jobs. When asking U.S. companies about the main reasons for a lack of access to the Chinese import market, national favoritism and protectionism are frequently cited as the major causes.[18]

1.3 U.S. Export Restrictions on High-Tech Products to China

Given the large markets and prospects for business, paired with the demand for high-technology products, U.S. businesses are increasingly looking to China as a major export market. However, a number of industries are very constrained due to export restrictions the U.S. government places on dual-use, high-technology products, thus putting U.S. companies at a significant competitive disadvantage in the Chinese marketplace.

The main industry criticism of the current export control regime is that it is static and fails to recognize that European and Japanese competitors are allowed to supply a variety of goods,

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[16] AmCham Shanghai (2011). Available at https://www.amcham-shanghai.org/ftpuploadfiles/Publications/Viewpoint/Viewpoint_US-Export-Competitiveness.pdf

[17] http://www.usinflationcalculator.com/

[18] In asking what barriers have been instrumental in preventing U.S. companies from exporting to the Chinese market, we can look to a similar survey conducted by the U.S. China Business Council (USCBC) in 2014. As part of this survey, members of USCBC report that most of the issues they encounter are related to some form of domestic protectionism. When assessing the challenges that American companies face in China, many issues overlap. Notably, six of the top 10 concerns are related to preferential treatment for China's domestic companies. An overwhelming majority of American businesses in China reported experiencing competitive disadvantages, while only 13% stated not having suffered at all from domestic policies that favor State-Owned Enterprises (SOE) or other competitors.

services and technologies that American companies are prevented from delivering to Chinese business partners. In response, the American Chamber of Commerce (AmCham) in Shanghai claims that U.S. export controls are upholding national security interests under the assumption that the U.S. remains the only viable supplier of critical dual use materials and components in terms of quantity and price.[19] However, this is no longer true. Currently, U.S. export controls simply present administrative hurdles for Chinese companies trying to do business with American companies. That competing Western corporations now use U.S. administrative hurdles as a marketing tool against American companies further illustrates this fact. In 2009 and 2014, the two American Chambers of Commerce in China (Shanghai and Beijing)[20] as well as the Bureau of Industry and Security within the U.S. Department of Commerce,[21] conducted surveys among member organizations in various key industries such as aerospace, information technology and internet services, electronics, engineering and technical consulting services. Using a set of key numbers and statements provided in the 2009 AmCham survey, we can estimate the annual value of forgone sales opportunities for members of the American Chamber of Commerce in China.[22]

These AmCham estimates provide a good starting point to assess how many American companies are currently affected by the export control regime. Nonetheless, less than half of the

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[19] "Request for Public Comments on the Effects of Export Controls on Decisions to Use or Not Use U.S.-Origin Parts and Components in Commercial Products and the Effects of Such Decisions" issued by the Bureau of Industry and Security, published in the Federal Register (Vol. 74, No. 2) on January 5, 2009.

[20] Due to the fact that the AmCham China report contains confidential corporate information, it was not made publically available. Lombardo, Chen and Chan (2009) provide a high-level summary available at http://www.amcham-shanghai.org/NR/rdonlyres/0BE4C980-EEAC-4B66-953F-77C5629157BA/11190/oct09_policy_update.pdf

[21] U.S Department of Commerce, 2014: "Impact of U.S. Export Controls on the Space Industrial Base." Available at http://www.bis.doc.gov/index.php/forms-documents/doc_view/898-space-export-control-report

[22] See initial calculation steps here:

134 members completed the survey, 77 of them from AmCham-China and 57 from AmCham Shanghai (most prominent sectors include aerospace, information technology and internet services, electronics, engineering and technical consulting services).	**AmCham members in survey**	**Portion that reported lost revenues**	**Portion that provided estimates**	**Average annual lost sales for members that provide estimates**
25 percent of all respondents, and 47 percent of those with businesses involving the export of licensable items in China, have lost sales because of U.S. export controls.	N=134	25%	10.45%	$ 40 Million
Most respondents were not able to provide value estimates of lost sales, but among the 14 companies that provided value estimates, the total impact of U.S. export controls on lost sales was placed at more than US$560 million per year.		N=34	N=14	

members (14/34) suggested losing out on business opportunities, and actually estimated their loss. Using a similar study done by the Bureau of Industry and Security in 2014, we can use a distribution of forgone sales revenues reported specifically for the aerospace industry in order to estimate the lost sales for the remaining 34 members of the American Chamber of Commerce in China:

Table B.3. American Chamber of Commerce Estimate of Annual Sales Lost Due to Export Controls

<table>
<tr><td rowspan="4">226 respondents reported lost sales less than $2 million;
34 respondents stated that their lost sales totaled greater than $10 million, with two organizations estimating their lost opportunities were greater than $100 million.</td><td>Share of companies losing 2 million or less</td><td>Share of companies losing 10M</td><td>Share of companies losing 100M</td><td>Annual lost sales for AmCham members that didn’t provide estimates</td><td>Annual lost sales for AmCham members that provide estimates</td></tr>
<tr><td>226/(226+32+2) =86.92%</td><td>32/(226+32+2) = 12.31%</td><td>2/(226+32+2) = 0.77%</td><td>17.38*$2M +2.46*$10M +0.15*$100M</td><td>As provided in AmCham survey</td></tr>
<tr><td rowspan="2">N=20*86.92% =17.38</td><td rowspan="2">N=20*12.31% = 2.46</td><td rowspan="2">N=20*0.77% = 0.15</td><td>$ 74.7 Million</td><td>$560 Million</td></tr>
<tr><td colspan="2">Total annual sales lost for AmCham members = $ 634.7 Million</td></tr>
</table>

Most likely, our resulting estimate of $635M lost in annual sales opportunities under-estimates the impact of U.S. export control on American business in China. The initial estimates stem from a survey conducted in 2009. Allowing for inflation and expressing the amount in 2015 dollars, we estimate annual lost sales about $700M. Moreover, the sample only includes companies that are members of either chapter of the American Chamber of Commerce in China and only asks about lost sales opportunities, disregarding the effect on U.S. jobs in the respective export industries. From these numbers and from analyses by the American Chamber of Commerce and the U.S. Department of Commerce, we conclude that export control regimes present a substantial burden for American businesses. Inasmuch as other Western allies have been loosening their restrictions on dual use technologies, reforms by the U.S. may be warranted.

Portfolio II

2.1 Relationship between Debt-to-GDP ratio and U.S. government bonds

When U.S. government debt soared during and following the Great Recession in 2008, the slight down-grading of USG 10-year bonds by one of the main rating agencies (S&P) resulted in decline in market value of those bonds. Hence, value of China's foreign exchange holdings and reserves declined accordingly. Although the decline was temporary due to countervailing effects of U.S. monetary policy, it signaled that there is a China-U.S. convergent interest in sound, prudential management of U.S. sovereign debt.[23]

2.2 Cutting military sales to Taiwan by 25%

The United States has a congressional obligation to support Taiwan under Taiwan Relations Act, and has in part fulfilled this obligation through arms sales. A 2014 report by the Congressional Research Service provides an itemized list of sales declared to the U.S. Congress between 1990 and 2011.[24] While there might be unrecorded sales, this list provides a fairly accurate description of the type and magnitude of sales made to Taiwan in the past two decades and as such, allows us to calculate the impact of a 25% cut on the U.S. defense industry (see Table B.4 and Figure B.1). However, since we are only looking at sales figures, we are failing to capture the effects on jobs as well as the political ramifications of the decision. When looking simply at the sales numbers, we find that a 25% cut would be likely to have a minor economic impact of at most $1-1.5B per year, although it must be noted that since 2007, military sales to Taiwan have experienced a sharp increase.

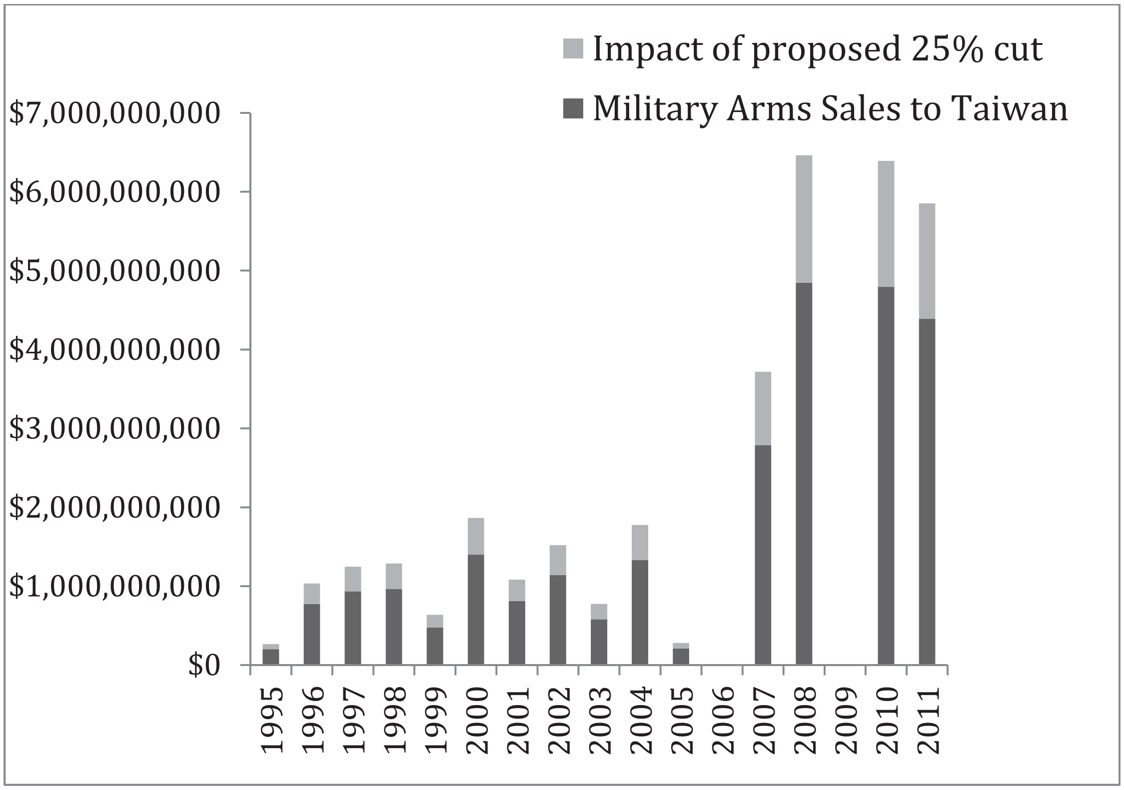
[23] This topic has been covered extensively in newspapers and online news outlets. For example, see Elliott et al. "US credit rating downgrade prompts warning from China." The Guardian, 6/8/2011, Available at http://www.theguardian.com/business/2011/aug/06/us-credit-rating-downgrade-china

[24] Kan, Shirley A. "Taiwan: Major US Arms Sales Since 1990." Library of Congress, Washington DC, Congressional Research Service, 2014

Table B.4. U.S. Arms Sales to Taiwan (in Millions of U.S. Dollars)

Year	*Military Arms Sales to Taiwan*	*Impact of proposed 25% cut*
1990	17,649	4,412.25
1991	372	93
1992	7,706	1,926
1993	2,184	546
1994	34,367	8,591
1995	267	66.75
1996	1,034	258.50
1997	1,247	311.75
1998	1,287	321.75
1999	637	159.25
2000	1,866	466.50
2001	1,082	270.50
2002	1,521	380.25
2003	775	193.75
2004	1,776	444
2005	280	70
2006		
2007	3,717	929.25
2008	6,463	1,615.75
2009		
2010	6,392	1,598
2011	5,852	1,463

Figure B.1. Impact of a 25 Percent Reduction in U.S. Military Sales to Taiwan, 1995-2011



The remaining two issues in Portfolio II will require additional research to be done with our collaborators in China, following this initial test-of-concept phase. These two issues are noted below, along with references to prior research likely to be useful in pursuing them.

2.3 Using military intelligence-sharing to limit illicit global traffic of HEU

The following are among the sources that would be useful in estimating the benefits and costs associated with military intelligence sharing to limit illicit global trafficking of highly enriched uranium:

- Albright, David, and Corey Hinderstein. "Uncovering the Nuclear Black Market: Working toward closing gaps in the international nonproliferation regime." Washington, DC: Institute for Science and International Security (2004).
- Zaitseva, Lyudmila, and Kevin Hand. "Nuclear Smuggling Chains: Suppliers, Intermediaries, and End-Users." *American Behavioral Scientist* , Vol. 46, No. 6, 2003, pp. 822-844.
- Civiak, Robert L. "Closing the gaps: Securing high enriched uranium in the Former Soviet Union and Eastern Europe." Federation of American Scientists (2002).

2.4 Facilitating China's RMB as a potential major global reserve currency

The following are among the relevant sources we identified in our research to date:

- McKinnon, Ronald. "Why China Should Keep Its Dollar Peg." *International Finance* 10.1 (2007): 43-70.
- Roubini, Nouriel. "Why China Should Abandon Its Dollar Peg." *International Finance* 10.1 (2007): 71-89.
- Luo & Jiang 2005. "Currency Convertibility, Cost of Capital Control and Cap Account Liberalization in China." Available at http://online.sfsu.edu/jcps/past%20issues/JCPS2005a/5%20Currency%20convertibility_Luo.pdf

Appendix C: US-China Convergent/Divergent Interests: Draft Questionnaire

This Appendix presents an initial draft of a questionnaire the study team designed to elicit expert judgments from U.S. and Chinese interlocutors regarding our illustrative portfolios. The questionnaire was tested by a small sample of RAND China experts, which revealed that: (a) qualitative judgments on these matters can be (and in fact were) elicited, but (b) there was wide variation in the judgments of our experts. Accordingly, we expect to refine this questionnaire further in the next phases of our study.

In responding to the following questions, respondents are asked to adopt the unitary decision model summarized in the introduction to this report. Hence, issues of relative importance to different stakeholders, their respective influence, and the intensity of their commitment, are assumed to be distilled and decided by each side's national security team. These simplifying assumptions are adopted for convenience in this "test-of-concept" effort.

1. Enhanced benefits in each Portfolio: What is the scale of each Portfolio's enhanced benefits? "Scale" connotes a mixture of qualitative and quantitative factors, so we propose adjectives rather than numbers to answer the question -- underscore one of the three options for each Portfolio.

Portfolio I:

I.1.i. large medium small (as viewed by China)
I.1.ii. large medium small (as viewed by U.S.)

Portfolio II:

II.1.i. large medium small (as viewed by China)
II.1.ii. large medium small (as viewed by U.S.)

Portfolio III:

III.1.i. large medium small (as viewed by China)
III.1.ii. large medium small (as viewed by U.S.)

2. Reciprocal concessions in each Portfolio: To what extent are the reciprocal concessions favorable to China and the U.S.? Underscore one of the three options for each portfolio.

Portfolio I:

I.2.i. more less equally (favorable to China, from its viewpoint)
I.2.ii. more less equally (favorable to U.S., from its viewpoint)

Portfolio II:

II.2.i. more less equally (favorable to China from its viewpoint)

II.2.ii. more less equally (favorable to U.S. from its viewpoint)

Portfolio III:

III.2.i. more less equally (favorable to China from its viewpoint)

III.2.ii. more less equally (favorable to U.S. from its viewpoint)

3. Questions relating to separate components of each Portfolio:

Portfolio I:

In answering question 2 above), if you underscored "less" favorable, briefly indicate what specific change(s) in Portfolio I's components would enable you to change your judgment to "equally"?

Portfolio II:

In answering question 2 above, if you underscored "less" favorable, briefly indicate what specific change(s) in Portfolio II's components would enable you to change your judgment to "equally"?

Portfolio III:

In answering question 2 above, if you underscored "less" favorable, briefly indicate what specific change(s) in Portfolio III's components would enable you to change your judgment to "equally"?

4. As previously stated, the aim of this project is to identify opportunities to achieve "win-win" outcomes for both China and the U.S. Toward this end, briefly describe specific changes in each Portfolio that would make its likely outcome preferable to present circumstances:

for Portfolio I: from China's viewpoint: ________________
from the U.S. viewpoint: ______________

for Portfolio II: from China's viewpoint: _______________
from the U.S. viewpoint: ______________

for Portfolio III: from China's viewpoint: ____________

from the U.S. viewpoint: _____________

5. Questions relating to negotiability, verifiability, and sustainability (indicate by "X" the cell you judge to be applicable):

	Portfolio I	**Portfolio II**	**Portfolio III**
Likely			
Possible			
Unlikely			