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Rubles, Dollars, and Power: U.S. Intelligence on the Soviet Economy and Long-Term Competition

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This response essay explores some of the key areas of agreement and disagreement between two recent articles on Cold War-era assessments of the Soviet economy.

Andrew W. Marshall and Abram N. Shulsky, "Assessing Sustainability of Command Economies and Totalitarian Regimes: The Soviet Case," Orbis 62, no. 2 (Spring 2018), https://doi.org/10.1016/j.orbis.2018.02.011.

Marc Trachtenberg, "Assessing Soviet Economic Performance During the Cold War: A Failure of Intelligence?" Texas National Security Review 1, no. 2 (March 2018), http://hdl.handle.net/2152/63942.

he 2018 National Defense Strategy articulates a clear vision that "[t]he central challenge to U.S. prosperity and security is the reemergence of long-term, strategic competition" with authoritarian Russia and China.¹ Such long-term competition has many facets, but perhaps the most salient component is the economic performance of these competitors. Economic growth, financial power, and technological development are the engines for military capability and diplomatic leverage.² To paraphrase Cicero, the sinews of competition are infinite money.

As U.S. policymakers consider this new era of longterm strategic competition, it is useful to reflect on the economic component of the last such era: the Cold War. U.S. intelligence analysts struggled to understand the opaque Soviet economic system. How well was it doing compared to the United States' economic system? Could this authoritarian model sustain or perhaps even prevail in longterm competition? The answers to these questions were difficult, contested, and politically charged, both during the Cold War and in its aftermath.³ Similar questions are being asked today about the Chinese economy, making this more than an issue of historical interest.⁴

Fortunately, two recent articles revisiting Cold War-era intelligence on the Soviet economy provide an accessible entry point for those grappling with such questions today. The first is by two participants in the original debate about the Soviet economy. Andrew Marshall was founding director of the Office of Net Assessment in the Office of the Secretary of Defense after more than two decades as an economist at the RAND Corporation. Abram Shulsky was minority staff director for the Senate Select Committee on Intelligence before joining the Defense Department during the Reagan administration. The second article was written by Marc Trachtenberg, one of the preeminent historians of U.S. strategy and the Cold War.⁵ The two articles are strikingly different in tone: Marshall and Shulsky are critical of U.S. intelligence and Trachtenberg is more laudatory. Nevertheless, a deeper examination shows they are much more complementary than contradictory.

This "Response" essay intends to highlight some of the key areas of agreement and disagreement between the two articles and provide additional context for readers. It proceeds in five parts: First, it summarizes the basic arguments put forward in each article. Second, it describes, based on the domestic context and declassified records, the impact that intelligence regarding the general state of the Soviet economy had on U.S. policymaking in the late Cold War (roughly from 1974 to 1989). Third, it examines in more detail the critical question of the Soviet economy's ability to support its military and foreign policy commitments. Fourth,

¹ U.S. Department of Defense, Summary of the 2018 National Defense Strategy of the United States of America: Sharpening the American Military's Competitive Edge, 2, https://dod.defense.gov/Portals/1/Documents/pubs/2018-National-Defense-Strategy-Summary.pdf

² See for example Aaron L. Friedberg, In the Shadow of the Garrison State: America's Anti-Statism and Its Cold War Grand Strategy (Princeton, NJ: Princeton University Press, 2000); Rosella Cappella Zielinski, How States Pay for Wars (Ithaca, NY: Cornell University Press, 2016); Francis J. Gavin, Gold, Dollars, and Power: The Politics of International Monetary Relations, 1958–1971 (Chapel Hill: University of North Carolina Press, 2004); and William H. McNeill, The Pursuit of Power: Technology, Armed Force, and Society Since A.D. 1000 (Chicago: University of Chicago Press, 1982).

³ See Noel E. Firth and James H. Noren, Soviet Defense Spending: A History of CIA Estimates, 1950–1990 (College Station: Texas A&M University Press, 1998); and Andrew F. Krepinevich and Barry D. Watts, The Last Warrior: Andrew Marshall and the Shaping of Modern American Defense Strategy (New York: Basic Books, 2015), esp. 149–74 for contrasting views.

⁴ Keith Bradsher, "China's Economic Growth Looks Strong. Maybe too Strong," New York Times, Jan. 18, 2018, https://www.nytimes.com/2018/01/18/business/china-gdp-economy-growth.html.

⁵ Truth in reviewing requires me to disclose connections to two of the authors. My first job in defense analysis was doing research for a project on military innovation sponsored by Marshall's Office of Net Assessment. Marshall was later extremely generous with his time and expertise when I wrote about the development of deterrence theory at the RAND Corporation. Trachtenberg has likewise been extraordinarily generous with his time and expertise for subsequent projects on nuclear strategy in the United States and Soviet Union.

it highlights an area not addressed substantially by either article, namely Soviet acquisition of Western technology through both lawful and illicit means. Finally, the essay concludes with observations on intelligence, economics, and long-term competition.

The Stansfield Turner Paradox: Opposing Views on Economic Intelligence

The different perspectives of the two articles are encapsulated in the paradox of one former official: the recently deceased retired Adm. Stansfield Turner, who was director of central intelligence under President Jimmy Carter (1977–1981). Marshall and Shulsky quote Turner's 1991 Foreign Affairs article in their introduction: "We should not gloss over the enormity of this failure to forecast the magnitude of the Soviet crisis."6 They later quote Turner's article again: "Neither I nor the CIA's analysts reached the conclusion that eventually something had to give: that there would be a political and economic crisis."7 Yet Trachtenberg quotes Turner's testimony to Congress in 1979, in which he said, "The low growth rates we envision for the mid-1980s could squeeze their resources to the point where something has to give."8 How could Turner argue in 1991 that the CIA never concluded "something had to give" when he had testified in 1979 using almost exactly those words?

Marshall and Shulsky address this paradox by first discussing views within economics on command economies and how they evolved from the 1930s to the 1970s. They report that economists were generally positive about the economic potential of command economies, such as the Soviet Union, into the early 1960s. They then describe some of the challenges for CIA analysts seeking to estimate the size and growth of the Soviet economy. These included reliance on deeply suspect Soviet statistics, which were almost surely inflated intentionally, both by Soviet leaders for propaganda purposes and by Soviet producers, who had incentives to misreport or otherwise "game" the presentation of results. Marshall and Shulsky highlight the example of Soviet glass

manufacturers having their output measured in square feet (or meters) of glass and then making the glass thinner to meet planned goals. Never mind that the rate of glass breakage went up. Quotas were met, if not exceeded.

Yet how to account for this inflation in estimates? One could apply a discount to Soviet data, but how much? Without hard data, any such adjusted estimate would be subject to attack for being merely "anecdotal." Marshall and Shulsky quote Anders Aslund's summation of this problem:

Any specialist is caught in a dilemma: whether to settle for a conservative assessment that can be defended by traditional arguments but is bound to be too high, or to attempt a realistic assessment based more on subjective evaluations and less on hard facts.⁹

Marshall and Shulsky concede that whatever the challenges and limitations of CIA analysis of the Soviet economy, by the 1960s CIA analysts recognized that Soviet economic growth was slowing. Throughout the 1970s and 1980s, the CIA reported falling productivity as well as other challenges to the Soviet economy. However, Marshall and Shulsky argue that "the numbers did not convey any sense of crisis."

Marshall and Shulsky then turn from analysis of overall Soviet economic performance to specific assessment of the Soviet defense burden - a crucial question for long-term competition. How much of the Soviet economy was being consumed by the Soviet military in order to compete with the United States? Here the CIA faced analytic hurdles at least equal to those faced in assessing the size of the Soviet economy. Prices for Soviet defense goods were set not by the market but by fiat. Prices for Soviet defense labor were likewise decreed (and suppressed by conscription). Some activities that were nominally civilian were, no doubt, underwriting military activities. Marshall and Shulsky also note how difficult cost calculations can be even with official figures, citing a RAND study from the 1950s:

¹⁰ Marshall and Shulsky, "Assessing Sustainability," 236.



⁶ Stansfield Turner, "Intelligence for a New World Order," Foreign Affairs 70, no. 4 (Fall 1991), quoted in Marshall and Shulsky, "Assessing Sustainability," 220.

⁷ Marshall and Shulsky, "Assessing Sustainability," 241.

⁸ U.S. Congress, Joint Economic Committee, Allocation of Resources in the Soviet Union and China—1979, Part 5 (Executive sessions, June 26, 1979) (Washington: Government Printing Office, 1980), quoted in Trachtenberg, "Assessing Soviet Economic Performance," 99.

⁹ Anders Åslund, "How Small Is Soviet National Income?" in *The Impoverished Superpower: Perestroika and the Soviet Military Burden*, ed. Henry S. Rowen and Charles Wolf Jr. (San Francisco: Institute of Contemporary Studies, 1990), quoted in Marshall and Shulsky, "Assessing Sustainability," 232.

Even with access to official budgetary figures, the [RAND] team discovered it could only account for about half of the USAF [U.S. Air Force] budget; the other half represented various forms of 'overhead' that could not be allocated by mission."

These challenges meant that, through the mid-1970s, the CIA persistently underestimated the defense burden on the Soviet Union. In 1976, Marshall and Shulsky note, after obtaining new information, the "CIA doubled its estimate of the defense percentage of Soviet GNP [Gross National Product] from 6-8 percent to 11-13 percent."¹² Yet, Marshall and Shulsky then quote Robert Gates, the CIA deputy director of intelligence in the early 1980s (who would later serve as defense secretary):

I believed instinctively that, in this communist variant of Sparta, the burden of military-related spending was far greater than the 14-16 percent of Soviet Gross National Product that CIA was saying — perhaps somewhere between 25 and 40 percent.¹³

Marshall and Shulsky conclude their essay with a call for intelligence to exploit nontraditional sources of information, such as émigrés and figures on general standards of living, as a way to improve intelligence analysis of opaque economies. Their answer to the Stansfield Turner paradox is that in 1979 Turner may have used the words "something has to give" but those words did not convey crisis. Since the numbers the CIA produced were not intuitively indicative of crisis (indeed, how could they be?), policymakers believed the Soviets could carry their defense burden for years if not decades to come. Even when the CIA revised its numbers upward, there was still a belief, as Gates indicated, the estimates remained low. There was, however, no way to prove this in a systematically and scientifically defensible manner. Thus, Turner was correct in 1991 despite his words of 1979.

Trachtenberg reaches the opposite conclusion about the Stansfield Turner paradox. Citing sources as varied as headlines in the *New York*

Times, declassified CIA products, and a wealth of information from prominent U.S. economists, he demonstrates that the decline of Soviet economic growth after the mid-1960s was well understood. He further shows that, by the late 1970s and early 1980s, it was generally understood that the Soviet economy was in such dire shape that the entire Soviet system of government was in trouble, if not already in crisis.

Trachtenberg demonstrates both CIA and academic economists understood why the Soviet economy was stagnating. The answer was that "the Soviets could not sustain a high rate of economic growth just by plowing more and more capital into the economy." After years of building new plants and opening up "virgin lands" for agriculture, "by the mid-1960s all the low-hanging fruit had been harvested." Future growth would require improvements in Soviet productivity, which had declined at times in the 1970s.

Trachtenberg, again citing both CIA and academic economists, concludes that by the 1970s at the latest it was clear "that the USSR's economic problems could be expected to worsen unless the

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Soviet economy changed in fundamental ways." Neither CIA analysts nor academics could predict whether the Soviets would attempt reform or live with continued stagnation and relative decline. Nor could they determine whether, if the Soviets attempted reform, they would succeed without undermining their entire system. Yet, Trachtenberg argues,

while the analysis might not have enabled people to see precisely how the USSR was going to develop, it did provide a certain window into the future — a hazy and

¹¹ Marshall and Shulsky, 237.

¹² Marshall and Shulsky, 240.

¹³ Robert M. Gates, From the Shadows: The Ultimate Insider's Story of Five Presidents and How They Won the Cold War (New York: Simon and Schuster, 1996), quoted in Marshall and Shulsky, "Assessing Sustainability," 241.

¹⁴ Trachtenberg, "Assessing Soviet Economic Performance," 86.

¹⁵ Trachtenberg, 88.

¹⁶ Trachtenberg, 89.

uncertain window to be sure, but one of real value nonetheless.¹⁷

Trachtenberg concludes by observing that the wide public acceptance of Turner's view on intelligence and the Soviet economy in 1991, despite the availability of his testimony in 1979 as well as other evidence, illustrates the weakness of the supposed democratic "marketplace of ideas" — the concept that contesting information leads to better decisions. This argument is in keeping with other arguments about the failure of this marketplace, particularly with regard to the 2003 invasion of Iraq. Trachtenberg does not speculate why Turner might have contradicted himself, though Turner's poor relationship with the CIA is a plausible cause. As one CIA history notes,

Turner bluntly let the CIA's analytic cadre know its products were unsatisfactory and he intended to take steps to improve them. This account dryly concludes this "was probably a purposeful instrument of leadership, but it did not foster links between Turner and the professionals in the community, especially in [the] CIA."

At first glance, these two articles appear contradictory — and so one must be right and the other wrong. On the question of intelligence on the overall Soviet economy, however, the two articles are not so far apart. Marshall and Shulsky believe that if CIA analysis were better it could have been less equivocal in predicting crisis (note Turner's 1979 formulation — "could squeeze," not "will squeeze"). Trachtenberg concedes that the CIA gave policymakers only a "hazy window" to



¹⁷ Trachtenberg, 92.

¹⁹ Douglas F. Garthoff, Directors of Central Intelligence as Leaders of the U.S. Intelligence Community, 1946–2005 (Washington: Center for the Study of Intelligence, 2005), 133, https://www.cia.gov/library/center-for-the-study-of-intelligence/csi-publications/books-and-monographs/directors-of-central-intelligence-as-leaders-of-the-u-s-intelligence-community/dci_leaders.pdf.



¹⁸ See Chaim Kaufmann, "Threat Inflation and the Failure of the Marketplace of Ideas: The Selling of the Iraq War," *International Security* 29, no.1 (Summer 2004), https://doi.org/10.1162/0162288041762940; and debate in Ronald R. Krebs and Chaim Kaufmann, "Correspondence: Selling the Market Short? The Marketplace of Ideas and the Iraq War," *International Security* 29, no. 4 (Spring 2005), https://doi.org/10.1162/isec.2005.29.4.196.

the future — a more positive assessment than that offered by Marshall and Shulsky, but not wildly divergent.

The dispute between the articles is not about the quality of the intelligence per se, which both agree was imperfect. It is instead about the utility of that intelligence to policymakers in assessing and planning long-term competition. The next section addresses this question.

Malaise vs. Stagnation: Policymaker Views of Economic Competition, 1974–1989

Competition is not a one-sided affair. As such, it is important to place analysis of the Soviet economy in the context of the state of the U.S. economy. By the mid-1970s, though the Soviets were mired in what they called the "era of stagnation" (Период Застоя), the United States' problems looked almost as grim.²⁰ The Bretton Woods economic system was in tatters following President Richard Nixon's suspension of dollar-gold convertibility.²¹ President Gerald Ford was confronted with rising inflation, unemployment, and the 1973 oil shock.²²

Of the late Cold War presidents, President Jimmy Carter confronted the most serious economic challenges. In his famous 1979 "malaise" or "crisis of confidence" speech, Carter declared, "The erosion of our confidence in the future is threatening to destroy the social and the political fabric of America." Among his proposed solutions: "I ask Congress to give me authority for mandatory conservation and for standby gasoline rationing." The U.S. crisis was sufficiently deep that the president sought to impose new elements of a command economy — hardly a ringing endorsement of capitalism's triumph over communism.

Policymakers in the 1970s were unsure whether economic problems in the West were any more

soluble than those in the Soviet Union. Moreover, if the United States could reform itself, it was plausible the Soviets might be able to do so as well. Indeed, the communist People's Republic of China had begun substantial reforms in 1978, which the Soviets monitored closely.24 As Chris Miller demonstrates, Mikhail Gorbachev's attempted reforms were, in part, inspired by China's efforts.25 This point bears emphasis, as the ultimate impact of such efforts was largely unknowable to both CIA analysts and Soviet leaders before reform was attempted, underscoring the difficulty in predicting Soviet crisis or collapse. It is also important to note that, even within the CIA, views differed about the depth of Soviet problems, with some analysts more pessimistic than others about prospects for the Soviet economy.26

American intelligence on the overall Soviet economy was, nonetheless, sufficiently compelling to illuminate future, if not immediate, opportunities for U.S. policymakers even in the Carter administration. An August 1977 meeting of Carter's Policy Review Committee (composed of senior figures including Turner and Treasury Secretary W. Michael Blumenthal) concluded,

At the present time, we cannot exert significant influence upon Soviet behavior by economic means. ... Yet, we may be missing an important point. If economic growth in the Soviet Union slows as projected, the Soviets will face difficult choices in the 1980's regarding the allocation of resources. Does this have implications for US policy? Conceivably, our economic leverage may be much stronger than now, and we may have a unique opportunity to use it.²⁷

Carter personally recognized the importance of the Soviet Union's economic challenges. In June 1977, William Hyland, a top Soviet analyst at the

²⁰ For an overview, see Charles S. Maier, "Malaise': The Crisis of Capitalism in the 1970s," and Alan M. Taylor, "The Global 1970s and the Echo of the Great Depression," in *The Shock of the Global: The 1970s in Perspective*, ed. Niall Ferguson, Charles S. Maier, Erez Manela, and Daniel J. Sargent (Cambridge, MA: Harvard University Press, 2011).

²¹ Peter M. Garber, "The Collapse of the Bretton Woods Fixed Exchange Rate System," in *A Retrospective on the Bretton Woods System: Lessons for International Monetary Reform*, ed. Michael D. Bordo and Barry Eichengreen (Chicago: University of Chicago Press, 1993), http://www.nber.org/chanters/c6876

²² Yanek Mieczkowski, Gerald Ford and the Challenges of the 1970s (Lexington: University Press of Kentucky, 2005).

²³ Jimmy Carter, "Address to the Nation on Energy and National Goals," July 15, 1979, http://www.presidency.ucsb.edu/ws/?pid=32596. As many commentators have noted, Carter never used the word "malaise" in his speech, yet the term has stuck.

²⁴ For an overview, see Odd Arne Westad, "The Great Transformation: China in the Long 1970s," in Ferguson et al., Shock of the Global.

²⁵ Chris Miller, The Struggle to Save the Soviet Economy: Mikhail Gorbachev and the Collapse of the USSR (Chapel Hill: University of North Carolina Press, 2016).

²⁶ My thanks to an anonymous reviewer for making this point, which was echoed in a conversation I had with a former CIA analyst, April 26, 2018.

^{27 &}quot;Summary of Conclusions and Minutes of a Policy Review Committee Meeting," Aug. 31, 1977, in Foreign Relations of the United States, 1977–1980, vol. VI, Soviet Union (hereafter FRUS) (Washington: Government Printing Office, 2013), https://history.state.gov/historicaldocuments/frus1977-80v06/d46.

CIA serving on the National Security Council staff, wrote to the president on enduring Soviet problems: "While it is always dangerous to project Soviet restraint because of their economic dilemma, it may be true for the first time that long-term problems will impinge on foreign policy decisions." Carter made a margin note, "may be most important of all," next to this paragraph.²⁸

By the early 1980s, the United States had begun its reformation and recovery, while the Soviet Union's problems were deepening. One example is the taming of U.S. inflation under Federal Reserve Chairman Paul Volcker, with inflation rates declining from about 13 percent in 1979 to less than 4 percent in 1983.²⁹ The Reagan administration began receiving intelligence on the worsening Soviet problem in the context of this U.S. economic recovery. This provided exactly the sort of opportunities the Carter administration thought would come.

As early as October 1981, Director of Central Intelligence William Casey sent President Ronald Reagan a CIA paper that underscored the dire straits the Soviets were in:

Slower economic growth will present President Brezhnev and his colleagues with some increasingly tough and politically painful regarding choices resource allocation and economic management. Annual increments to national output in the early 1980s will be too small to permit them simultaneously to meet mounting investment requirements, to maintain growth in defense spending at rates of the past, and raise the standard of living appreciably. Simply stated, something will have to give.30

The paper went on to note that Western imports were needed to ameliorate Soviet weaknesses, which could, in turn, create opportunities for pressuring the Soviets. In August 1982, Reagan's national security adviser, William Clark, wrote to the president reiterating this theme:

The CIA has prepared a report which raises the question whether the Soviet Union, facing mounting economic problems, may at some point decide to shift resources from arms production to civilian uses ... Western policies would play a major role in such a development. 'The credit, goods, food and technology provided by the West have helped Moscow maintain its current resource allocation scheme.' Denial of such assistance would produce additional pressure on the leadership to shift resources from military to civilian uses.³¹

Things did not improve for the Soviets, and in November 1987 Deputy Director of Central Intelligence Gates wrote to Reagan:

There is general agreement among the Soviet leaders on the need to modernize their economy — not so much for its own sake or to make Soviet citizens more prosperous but to strengthen the USSR at home, to further their own personal power, and to permit the further consolidation and expansion of Soviet power abroad. ... The roots of Gorbachev's dynamic foreign policy are to be found at home and in the need for a prolonged breathing space.³²

Gates was skeptical that reform and the pursuit of "breathing space" would fundamentally change the nature of the Soviet regime, but he recognized that economic issues were changing Soviet domestic and foreign policy. Hyland's view in 1977 had been borne out 10 years later. While Gates did not foresee impending collapse, he clearly believed the Soviet system was under pressure.

Notably, Reagan absorbed these messages: As Trachtenberg describes, he referred to the Soviet

^{32 &}quot;Memorandum Prepared by the Deputy Director of Central Intelligence (Gates)," Nov. 24, 1987, in FRUS 1981–1988, vol. VI, Soviet Union, October 1986–January 1989.



^{28 &}quot;Memorandum From the President's Assistant for National Security Affairs (Brzezinski) to President Carter," June 24, 1977, in FRUS, 1977–1980, vol. VI, Soviet Union, https://history.state.gov/historicaldocuments/frus1977-80v06/d32.

²⁹ See data at https://www.inflation.eu/inflation-rates/united-states/historic-inflation/cpi-inflation-united-states.aspx. For an overview of Volcker's policies, see Allan H. Meltzer, A History of the Federal Reserve, vol. 2, book 2, 1970–1986 (Chicago: University of Chicago Press, 2009), chaps. 7 and 8.

^{30 &}quot;Memorandum From Director of Central Intelligence Casey to President Reagan," Oct. 29, 1981, in FRUS 1981–1988, vol. III, Soviet Union, January 1981–January 1983.

^{31 &}quot;Memorandum From the President's Assistant for National Security Affairs (Clark) to President Reagan," Aug. 9, 1982, in FRUS 1981–1988, vol. III, Soviet Union, January 1981–January 1983. The quotation within the quotation is from the referenced CIA assessment.

Union as an "ec.[onomic] basket case" in a 1985 diary entry.³³ It is also worth noting that the Commission on Integrated Long-Term Strategy, a bipartisan effort chartered to offer the U.S. government strategic advice on long-term competition, released a final report in January 1988. It argued that Soviet economic difficulties were potentially a major element of a changing security landscape and

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concluded, "In the long run, the Soviet leaders would have difficulty maintaining the country's present military position if economic reform fails." Marshall chaired one of the committee's working groups, as did other alumni from RAND's economics department.³⁴

Intelligence on the Soviet economy appears to have been sufficiently accurate and compelling to convince policymakers in the Carter and Reagan administrations that Soviet economic weakness created opportunities for the United States in long-term competition. While it is true that, through 1988, the CIA did not foresee a collapse or fundamental change in the Soviet system, it was nonetheless clear that something had to give — a phrase that appears in multiple sources throughout the period. The available evidence suggests that Trachtenberg's "hazy window" on the Soviet economy was sufficient to aid policymakers in formulating strategy.

How Weary the Red Titan? The Soviet Defense Burden and Long-Term Competition

If Trachtenberg is correct about the utility of U.S. intelligence on the overall Soviet economy, he says little about the crucial question of the Soviet defense burden. If the Soviet economy was stagnating in the

1980s but the defense burden was relatively small, the Soviet leadership might be able to soldier on with long-term competition as it had in the 1960s and 1970s. The hard choices CIA analysts believed were coming could be put off. In contrast, if the defense burden was high and the economy was stagnating, the Soviet leadership might not be able to delay those hard choices, even if they

gained the "breathing space" Gates believed they sought.

Marshall and Shulsky are right to highlight the weakness of the CIA's assessment of the Soviet defense burden through the mid-1970s, echoing arguments Marshall made while in government.³⁵ These internal critiques were mirrored by external critics, such as former CIA analyst William T. Lee and University of North Carolina professor Steven Rosefielde.³⁶ The doubling of the CIA's estimate of the defense burden in the mid-1970s underscores the validity of these critiques, at least to that point.

Marshall and Shulsky say little about efforts to improve analysis of the defense burden, which the CIA and the intelligence community generally took as a serious challenge. One of the most notable efforts was the formation, in 1972, of the Military-Economic Advisory Panel. This panel was chartered "to help insure [sic] that intelligence on Soviet defense spending provided to the US decision maker was of the highest quality." Members of the panel were to be granted "access to the full range of information and methodologies in use and will have full access to all intelligence community resources

³³ Trachtenberg, "Assessing Soviet Economic Performance," 93 fn 85. The diary entry referenced is from Nov. 13, 1985. In contrast, Reagan wrote in his diary on Nov. 5: "Had an Ec. Briefing—our recovery is continuing—or by now I should say our expansion & growth is progressing at a slow but steady rate & on employment we're doing extremely well. A higher percentage of the potential work force (all between 16 & 65) is employed than ever in our history." See the full diary entry at the Reagan Foundation site: https://www.reaganfoundation.org/ronald-reagan/white-house-diaries/diary-entry-11051985/.

³⁴ Discriminate Deterrence: Report of the Commission on Integrated Long-Term Strategy (Washington: Government Printing Office, 1988), quotation on page 8. Other working-group chairs included Paul Gorman, Charles Herzfeld, Fred Hoffman, Henry Rowen, and Charles Wolf — the latter three were RAND alumni.

³⁵ See, for example, Marshall's statement in U.S. Congress, Joint Economic Committee, *Allocation of Resources in the Soviet Union and China—1975* (Washington: Government Printing Office, 1975) and CIA, Memorandum for the Record, "Conversation with Andy Marshall," March 12, 1976; available at CIA's Freedom of Information Act Electronic Reading Room: https://www.cia.gov/library/readingroom/ (hereafter ERR). Marshall's CIA interlocutor in this latter document was Richard Lehman, the deputy for national intelligence.

³⁶ William T. Lee, CIA Estimates of Soviet Military Expenditures: Errors and Waste (Washington: American Enterprise Institute, 1995), and Steven Rosefielde, False Science: Underestimating the Soviet Arms Buildup (New Brunswick, NJ: Transaction Books, 1982).

involved in this work."³⁷ The panel was, in 1976, chaired by Herbert Levine, a professor at the University of Pennsylvania and one of the leading authorities on the Soviet economy. Other members included Abraham Becker, a Soviet expert at RAND and Lt. Col. Lee Badgett, an economics professor at the Air Force Academy who previously had been a military assistant to Marshall at the Office of Net Assessment. Throughout its existence, the panel would maintain a record of distinguished members and consultants, including Ivan Selin, a former RAND and Defense Department analyst; Soviet émigré economist Igor Birman; and Massachusetts Institute of Technology professor Stephen Meyer.

Outside expert panels have a mixed track record, but available CIA records, including the panel's reports to Turner when he was director of central intelligence, seem to indicate that this panel provided helpful recommendations without calling into question the CIA's basic methodology.³⁸ One minor note of irony regarding the presentation of information: The CIA's computer model for estimating the costs of Soviet military expenditures was known as the Strategic Cost Analysis Model, or SCAM.³⁹ To my knowledge, the Military-Economic Advisory Panel never suggested that this acronym was infelicitous branding.

Yet by 1983, after several rounds of reviewing CIA methodologies, the panel concluded that one of the major problems with CIA estimates of the Soviet defense burden was the extent to which those estimates were misunderstood and politicized.⁴⁰ The panel made recommendations for changing the presentation of the estimates; these were broadly accepted at a meeting on Soviet defense estimates between Defense Secretary Caspar Weinberger and Director of Central Intelligence William Casey in July 1984.⁴¹ Casey wrote to Weinberger in 1985 to confirm these changes were being implemented.⁴²

In a 1986 CIA report, these changes are clear: The estimate of the Soviet defense burden displayed the burden in a different format and also counted

the costs of Soviet programs related to defense, such as the cost of maintaining the Soviet global position, sometimes referred to as the cost of Soviet empire.⁴³ The "cost of empire," which included military and economic assistance to the Soviet bloc, had been defined and explored in research by RAND economist Charles Wolf, funded by the Office of Net Assessment.⁴⁴ While some in the CIA debated the magnitude of Wolf's findings, the eventual inclusion of such costs meant that assessments in 1986 retrospectively showed the Soviets devoting 16 percent to 18 percent of their economy to defense in the late 1970s and early 1980s.⁴⁵

In addition to improving analytic methods, CIA analysts also took seriously Marshall and Shulsky's charge to find new sources of data. One of the most remarkable - though not specific to the defense burden — was undertaken in 1967 by CIA analyst Gertrude Schroeder (later an economics professor at the University of Virginia). Schroeder, on temporary assignment to the U.S. embassy in Moscow, took the opportunity to travel around the capital and other parts of the Soviet Union incognito, relying on her excellent Russian and "a tacky outfit consisting of gray-green skirt, nondescript tan blouse, much-worn brown loafers, and of course head scarf," with no stockings. After observing life from the perspective of a Soviet citizen during these excursions, she concluded, "[O]ur measurements of the position of Soviet consumers in relation to those of the United States (and Western Europe) favor the USSR to a much greater extent than I had thought. The ruble-dollar ratios are far too low for most consumer goods."46

Accessing such novel sources was challenging. For example, Vladimir Treml, a Duke University economics professor serving on the Military-Economic Advisory Panel in 1982, recommended the intelligence community explore unpublished material in various Eastern European libraries to collect data deleted from official Soviet

⁴⁶ Gertrude Schroeder, "Soviet Reality Sans Potemkin," Studies in Intelligence 12, no. 2 (Spring 1968): 51, 57, https://www.cia.gov/library/centerfor-the-study-of-intelligence/kent-csi/vol12i2/html/v12i2a06p_0001.htm.



³⁷ CIA, Memorandum, "Background on the Military-Economic Advisory Panel," April 13, 1977, ERR.

³⁸ CIA, Memorandum, "Talking Points for DCI Meeting with the Military-Economic Advisory Panel (MEAP)," Aug. 24, 1977, ERR.

³⁹ CIA, Memorandum for Deputy Director of Intelligence, "Request for Approval of ADP Project- SCAM-1," July 19, 1967, ERR.

⁴⁰ CIA, "Reports of the Working Groups on Military-Economic Analysis," July 20, 1983, ERR. For an excellent overview of intelligence politicization, see Joshua Rovner, Fixing the Facts: National Security and the Politics of Intelligence (Ithaca, NY: Cornell University Press, 2011).

⁴¹ CIA, Memorandum for the Record, "Conversation on Soviet Defense Expenditures," Aug. 1, 1984, ERR.

⁴² Letter to Caspar W. Weinberger from William J. Casey, April 16, 1985, ERR.

⁴³ CIA, USSR Review, September–October 1986, 11, ERR.

⁴⁴ Charles Wolf et al., The Costs of the Soviet Empire (Santa Monica, CA: RAND Corp., 1983), https://www.rand.org/pubs/reports/R3073z1.html.

⁴⁵ On the debate, see Maurice C. Ernst, Memorandum for Director of Central Intelligence and Deputy Director of Central Intelligence, "The Costs of the Soviet Empire: A Rejoinder," Sept. 12, 1984, ERR. For the estimated defense burden, see *USSR Review*, 11.

publications. While reasonable, collecting the material required "language[-]trained economists," who were in short supply. Further, CIA leaders concluded that the sources would be compromised by CIA analysts seeking to access them and nongovernment economists were "reluctant to work with us [the CIA]." The director of the Office of Soviet Analysis at the CIA nonetheless cheerfully (if perhaps cynically) concluded, "Somewhere in this mess, however, there must be a pony! We'll keep looking."

Estimates of the Soviet defense burden remained a challenge through the end of the Cold War and afterward. As William Wohlforth has observed, even after the Soviet Union collapsed there was debate about the size of the defense burden.⁴⁸ One of the most authoritative efforts, by Russian historian Irina Bystrova, concludes that the Soviet military-industrial complex accounted for about 25 percent of Soviet gross domestic product in the 1980s while absorbing 75 percent of research and development as well as the best technical people.⁴⁹

Although Bystrova's estimate of the defense burden is significantly higher than the 1980s CIA estimate (16 percent to 18 percent), the goal of making such estimates was not finding the exact figure. As with assessments of the overall economy, the objective was to inform policymakers of how well the Soviet economy could carry the burden of competition. Here, it seems clear by the 1980s the intelligence was telling policymakers that the Soviet Union was struggling under that burden.

In a note to Gates two days before the July 1984 meeting between Casey and Weinberger, National Intelligence Officer for Economic Issues Maurice Ernst wrote:

Evidence is accumulating that medium-term projections of Soviet force levels ... would require a growth of military expenditures and military procurement in particular that many Soviet analysts believe to be greatly in excess of what the Soviet economy can probably support. Something will have to



⁴⁷ Memorandum for Director of Central Intelligence and Deputy Director of Central Intelligence, "MEAP Proposal for Additional Sources of Information of Soviet Economics Information," June 14, 1982, ERR. The "pony" reference is to a joke much beloved of President Reagan. See Peter Robinson, How Ronald Reagan Changed My Life (New York: HarperCollins, 2003), 15–16.

⁴⁸ William C. Wohlforth, "No One Loves a Realist Explanation," *International Politics* 48, no. 4–5 (July 2011), https://doi.org/10.1057/ip.2011.17. See also William C. Wohlforth, *The Elusive Balance: Power and Perceptions During the Cold War* (Ithaca, NY: Cornell University Press, 1993).

⁴⁹ Irina Bystrova, Совстский военно-промышленный комплекс: Проблемы становления и развития (1930-1980-с годы) (Soviet Military-Industrial Complex: Problems of Creation and Development [1930s-1980s]) (Moscow: Russian Academy of Sciences, 2006). For an Englishlanguage summary, see Irina Bystrova, "Russian Military-Industrial Complex," (Helsinki: Aleksanteri Institute, 2011).

give. I don't believe we can hazard an answer at this point, but simply point out to the Director and Weinberger that at a minimum a severe conflict is shaping up in the USSR over the allocation of key resources between defense and other uses, and that the outcome of the conflict remains in doubt.⁵⁰

Marshall and Shulsky's criticisms of CIA estimates of the Soviet defense burden are thus valid up to a point, but they give too little credit to subsequent efforts to improve those estimates. Indeed, Marshall may be selling himself short — his bureaucratic advocacy and willingness to support

The Reagan administration's recognition of the importance of Soviet technology acquisition led to a major counterintelligence and export-control campaign.

outside research seems to have been an important contribution to the improvement in estimates. The result was that, by the mid-1980s, policymakers were well-informed that the Soviet defense burden was becoming unsustainable. That the burden of competition could even be sustained into the 1980s seems to have been due in no small part to Soviet acquisition of Western technology, as described in the next section.

Been Caught Stealing: The Rise and Fall of Soviet Technology Acquisition

As noted earlier, by the late 1970s CIA estimates recognized the extent to which Western exports had supported the Soviet economy. Yet the extent of Soviet reliance on the acquisition of Western technology would not become clear until the early

1980s. A summit in July 1981 between Reagan and French President François Mitterrand was crucial. There, the French revealed intelligence on Soviet acquisition of technology. The "Farewell Dossier" was derived from a French human intelligence source inside Soviet technical intelligence (KGB Line X).⁵¹ By 1982, the U.S. intelligence community described the sprawling scope of the Soviet program, which was directed by the Soviet Military Industrial Commission.⁵² It included both the KGB and Soviet military intelligence, which provided clandestine acquisition, and the Soviet State Committee for Science and Technology, which oversaw licit acquisition.

The Soviet program was massive. One former Reagan administration official told me that when a new technical endeavor was proposed in the Soviet Union, Soviet practice was to try to obtain the technology from the West, through legal or illicit means, before agreeing to fund any major research and development.⁵³ This claim was echoed in a CIA assessment from April 1982, which noted, "Soviet military designers carefully choose the Western designs, engineering approaches, and equipment most appropriate to their

deficiencies and needs."⁵⁴ A 1985 update on Soviet acquisition of Western technology noted that, by a conservative estimate, the Soviets had saved more than \$1 billion in development costs from 1976 to 1980 thanks to their technology theft. The assessment noted the Soviets had saved five years in development due to acquisitions related to the U.S. F-18 fighter-jet radar alone. This undoubtedly helped the Soviet Union continue competing with the United States, even as its economy tottered toward collapse.⁵⁵

The Reagan administration's recognition of the importance of Soviet technology acquisition led to a major counterintelligence and export-control campaign. This effort, which began in early 1982, required extensive coordination among the CIA, the FBI, and military counterintelligence organizations, with the regular involvement of very senior U.S. officials.⁵⁶

- 50 Maurice C. Ernst, "Note for Bob Gates: Soviet Defense Spending," July 18, 1984, ERR.
- 51 Sergei Kostin and Eric Raynaud, Farewell: The Greatest Spy Story of the Twentieth Century (Las Vegas: AmazonCrossing, 2011).
- 52 CIA, Soviet Acquisition of Western Technology, April 1982, ERR.
- 53 Conversation with former official, April 26, 2018
- 54 Soviet Acquisition of Western Technology, 6.
- 55 CIA, Soviet Acquisition of Militarily Significant Western Technology: An Update, September 1985, 8-12, ERR.
- 56 Michelle K. Van Cleave, Counterintelligence and National Strategy (Washington: National Defense University, 2007), 8–9; and Gus W. Weiss, "The Farewell Dossier," Studies in Intelligence 39, no. 5 (1996), https://www.cia.gov/library/center-for-the-study-of-intelligence/kent-csi/vol39no5/pdf/v39i5a14p.pdf. I have also benefited from substantial off-the-record conversations with participants in this campaign.



The campaign had four parts. The first and simplest was for the United States and many of its allies to expel Soviet intelligence officers engaged in technical espionage.57 The second was to enforce Western export controls more seriously, including acting against the sale of equipment by Norwegian and Japanese firms that enabled Soviet improvements in submarine manufacturing.58 The third part of the campaign was, apparently, to tailor the focus of other U.S. counterintelligence efforts to protect sensitive programs. For example, a U.S. Air Force officer, approached by Soviet intelligence, became a double agent pretending to provide the Soviets with information on stealth. This led to the arrest and expulsion of the senior Soviet air attaché in Washington.59 The fourth, and most complex, part of the campaign was allegedly to feed the Soviets faulty technology and false data about U.S. programs, which required careful selection of some real data as "feed material."60

This campaign was broadly effective, reducing Soviet acquisition of Western technology and, presumably, curtailing the effective subsidization of the Soviet defense burden. While the extent to which cutting off Soviet access to Western technology accelerated the end of the Cold War is probably unknowable, it almost surely contributed by raising the cost of competition for the Soviets.

Long-Term Competition and Economic Intelligence in the 21st Century

The Cold War experience of economic intelligence and long-term competition is instructive. First, in developing strategy for long-term competition, intelligence on competitors' economic capabilities is just as important as intelligence on their military capabilities. This point underscores the

continuing need for robust economic analysis in the intelligence community, ideally drawing on appropriately cleared, outside experts like those on the Military-Economic Advisory Panel.

One difference between analysis of the Soviet Union in the Cold War and assessments of China and Russia today is that there is far greater private-sector interest in, and therefore analysis of, the Chinese and Russian economies. This is a mixed blessing for the intelligence community. There are many more experts and sources of data, but many of those experts have a financial (rather than strictly academic) stake in the Chinese and Russian economies and therefore may not be entirely unbiased.

Second, it highlights the necessity (and difficulty) of appropriately measuring a defense burden. While Chinese growth will undoubtedly continue to underwrite defense expenditure to some extent, China may, like the Soviet Union (and the United States), face hard choices. For example, Peter Robertson and Adrian Sin argue that China's defense expenditures, measured with a relative cost-price index, are larger in nominal terms than commonly believed but smaller in real terms due to rising labor costs.⁶¹ Similarly, the Chinese may have "costs of empire," such as spending on the Belt and Road Initiative, which should not be viewed in isolation from the military burden.⁶² Economic growth does not automatically and seamlessly translate to military budgets, much less real military power. Policymakers need a window, however hazy, on the economic future of adversaries.

Third, while the U.S. relationship with China is different than that with the Soviet Union, it is likely that the licit and illicit acquisition of Western technology supports the Chinese defense burden at least as much as it did the Soviet burden. ⁶³ Given the recent scrutiny of Chinese trade and espionage by both the Trump administration and Congress,

⁵⁷ See for example, State Department, Foreign Affairs Note, "Expulsions of Soviet Officials Worldwide, 1986," January 1987, http://insidethecoldwar.org/sites/default/files/documents/Department of State Report on Expulsion of Soviet Officials Worldwide 1986 January 1987.pdf.

⁵⁸ Robert A. Rosenblatt, "Toshiba Sale 'Criminal,' Japanese Says," Los Angeles Times, July 18, 1987, http://articles.latimes.com/1987-07-18/news/mn-736_1_japanese-government.

⁵⁹ Ronald J. Ostrow, "FBI Arrests Top Soviet Air Attache as Spy: Colonel Seized When Digging Up 'Secrets' Left by Double Agent," Los Angeles Times, June 21, 1986, http://articles.latimes.com/1986-06-21/news/mn-19627_1_fbi-agents.

⁶⁰ See Weiss, "The Farewell Dossier."

⁶¹ Peter E. Robertson and Adrian Sin, "Measuring Hard Power: China's Economic Growth and Military Capacity," *Defence and Peace Economics* 28, no. 1 (Spring 2017), https://doi.org/10.1080/10242694.2015.1033895.

⁶² The size of China's Belt and Road Initiative is unclear at the unclassified level, which underscores the need for high-quality economic intelligence analysis. See Jonathan E. Hillman, "How Big is China's Belt and Road?" Center for Strategic and International Studies, April 3, 2018, https://www.csis.org/analysis/how-big-chinas-belt-and-road.

⁶³ See William C. Hannas, James Mulvenon, and Anna B. Puglisi, Chinese Industrial Espionage: Technology Acquisition and Military Modernization (Abingdon, UK: Routledge, 2013); U.S.-China Economic and Security Review Commission, Annual Report to Congress (2016), 289–311, https://www.uscc.gov/Annual_Reports/2016-annual-report-congress; Justice Department, "Chinese National Pleads Guilty to Conspiring to Hack into U.S. Defense Contractors' Systems to Steal Sensitive Military Information," press release no. 16-342, March 23, 2016, https://www.justice.gov/opa/pr/chinese-national-pleads-guilty-conspiring-hack-us-defense-contractors-systems-steal-sensitive; Helene Cooper, "Chinese Hackers Steal Unclassified Data From Navy Contractor," New York Times, June 8, 2018, https://www.nytimes.com/2018/06/08/us/politics/china-hack-navy-contractor-.html; and National Counterintelligence and Security Center, Foreign Economic Espionage in Cyberspace 2018, https://www.dni.gov/files/NCSC/documents/news/20180724-economic-espionage-pub.pdf.

lessons of the anti-Soviet counterintelligence campaign are worth examining. Former national counterintelligence executive Michelle Van Cleave has called for just such a proactive strategic counterintelligence campaign.⁶⁴ Paired with greater scrutiny of China's licit technology acquisition, as called for in pending legislation, such a campaign could make a significant difference in long-term competition.⁶⁵

The return of long-term competition is not simply the Cold War redux. Yet neither should the lessons of the Cold War simply be discounted. Marshall, Shulsky, and Trachtenberg have done contemporary analysts a great service in reviewing the critical question of economic intelligence during that long twilight struggle.

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⁶⁴ Michelle Van Cleave, Statement on "Chinese Intelligence Operations and Implications for U.S. National Security," U.S.-China Economic and Security Review Commission, June 9, 2016.

⁶⁵ Stephanie Zable, "The Foreign Investment Risk Review Modernization Act of 2018," *Lawfare*, Aug. 2, 2018, https://www.lawfareblog.com/foreign-investment-risk-review-modernization-act-2018.