ABSTRACT

Ties between big finance and the weapons industry are not new. The first venture capital firm in the US was founded to profit from new technologies developed for use in WWII, and the role of military spending in turning Silicon Valley into a tech hub is well documented. But today’s venture capitalists are a different breed: obscenely rich, amoral megalomaniacs feted by a political establishment desperate for a formula promising revitalized hegemony to a waning empire. What we’re going to get instead is the unchecked development of deadly new technologies, a massive expansion of the US military bureaucracy, and US foreign policy primed for more endless war.

TAGS:
North America, Militarization, Military Industrial Complex, US Economy

CITATION:
1 The Military Industrial Venture Capital Complex

Ties between big finance and the weapons industry are not new. The first venture capital firm in the US was founded to profit from new technologies developed for use in WWII, and the role of military spending in turning Silicon Valley into a tech hub is well documented. But today’s venture capitalists are a different breed: obscenely rich, amoral megalomaniacs feted by a political establishment desperate for a formula promising revitalized hegemony to a waning empire. What we’re going to get instead is the unchecked development of deadly new technologies, a massive expansion of the US military bureaucracy, and US foreign policy primed for more endless war.

This newest confluence of big finance and militarism has structural causes. US industrial policy has two main parts: 1) pouring money into military industrial production through the massive pentagon budget, and 2) failing to tax the super rich and instead trying to incentivize them to use their surplus capital to finance infrastructure and support the narrative that the economy needs to grow. In recent decades, rather than investing in basic research or public goods directly, most American venture capital has gone to NFTs, crypto, Theranos, and services that pretend to be tech solutions to public goods problems but are actually just parasitic methods of extracting value from what’s left of the real economy (Uber, Airbnb, WeWork, YieldStar, the list is endless).

A singular arena where venture capital is producing real results is expanding US production of military and surveillance technologies. In order to capitalize on the one sector that the US state still does subsidize, VC and private equity funds are plowing their surplus capital into weapons firms and “defense tech” startups. But first VC firms have to reshape the US war economy to match their business model. VC firms go in with an initial investment, get a discrete product to market or bring to the prototype stage, and then cash out. Private equity (PE) firms operate under a similar short-term dynamic – they restructure the way a firm operates, strip what they can, and make shareholders a little richer. Neither of these operational models match up well with a Military Industrial Complex made up of a few behemoth firms with hundreds of thousands of employees, billions of dollars of permanent infrastructure, huge up-front capital costs, lengthy outlooks for investment returns, and extremely complex procurement processes. So venture capitalists are devising their own plans for more endless wars and reshaping Pentagon planning with concepts like ‘attributable’ warfare, “autonomous rapid deployment” (or swarm) technology, and subscription models for weapons systems. They’re selling new modes of warfare to Pentagon officials not because this approach fits some strategic framework but because it aligns with their business model. The more influence venture capitalists can leverage on the Pentagon – and market a type of war that Pentagon planners will need to stock up for – the cheaper and faster VC and PE investors will get new products to market, IPO the firms, and cash out. Rinse and repeat.
2 The Military Industrial Venture Capital Complex

Of course, financial interests influencing politics (even the politics of warfare) is not a novel phenomenon. The big primes – like Lockheed, Raytheon, Boeing, Northrop Grumman and General Dynamics – have been funding think tanks to promote US militarism abroad for decades, while also reshaping US government intervention to subsidize their operations, deregulate their activities, and minimize oversight while draining resources from every other aspect of our lives. Venture capitalists are now effectively doing the same: using their enormous financial resources to make sure even less of what's left ultimately trickles down to ordinary Americans.

The fingerprints of VC strategy are clear in a range of new initiatives and policy changes in the US military and defense establishment designed to facilitate the procurement process for VC-backed military firms. These initiatives include the Pentagon's Office of Strategic Capital, the Small Business Investment Company/SBIC initiative; the Defense Innovation Unit and related Defense Innovation Board (a collection of executives and researchers from Silicon Valley elevated in October 2023 to a permanent department under the Secretary of Defense); Task Force Lima (a brand-new task force on integrating AI into the MIC); and the increasing use of nontraditional contracting mechanisms like “Other Transaction Authority” or OTAs that enable the Pentagon to speed up the check-writing process by removing oversight and regulatory controls. All these changes help clear a path for VC-backed defense startups to secure a chunk of the US military industrial complex.

The Office of Strategic Capital enables the Pentagon to provide loans or banking guarantees to defense tech firms and military startups. Typically, the Pentagon acquires technologies or equipment through private contracts with a company to provide that service/product – or by supplying government grants to provide funds for research and development. The Office of Strategic Capital/OSC transforms the Pentagon from a public agency engaged in contracting or grant-funding into an investment fund. In 2022 Silicon Valley VCs lobbied the Pentagon to use the OSC to bail out Silicon Valley Bank (where many of them had hundreds of millions invested) by claiming that the defense tech startups in which their depositors were invested would be damaged (thereby losing the Pentagon critical capabilities) if they didn't get this bailout. This claim worked – the bank’s depositors, despite being way over the FDIC guarantee limit, didn’t lose a cent.

The broader financial sector is similarly providing innovative products to accelerate the Pentagon's outreach to VC-backed defense tech. One example is Leonid Bank, an invoice factoring company that lends to defense tech startups based on the DOD invoices that those startups have for future projects. This provides them with access to more money (over and above the contract value) which is not a financial service that has been available for pentagon contractors in the past.

Much of the discourse coming from VCs emphasizes the benefits of reforming the procurement system to acquire more 'commercial' items (ie, off-the-shelf items that aren't 'bespoke' versions built from scratch for the Pentagon). This transformation is
sold to the public as a method of saving the government money, as it expedites the development of the product: if there are venture investors and other funds involved, then the government also foots less of the bill for development and manufacturing. However, if the success of the product and the firm that develops it is dependent on the widespread adoption of that technology commercially, this dependence will introduce a new range of militarized technologies into a society that is already incredibly violent, heavily surveilled, and propagated into acceptance of an industrial policy that sees the promotion of military goods and services as the primary avenue to innovation, economic growth, decent industrial jobs, and the provision of infrastructure.

Another important dynamic is the ethos of silicon valley VCs and tech culture, which share an absolute disdain for institutions of government and any constraints or regulations on their activities. But for the large primes/established behemoths of the MIC (Lockheed, Raytheon, BAE, etc) regulation and government support is critical; they rely on USG institutions to write the contracts, guarantee prices, ensure a minimum level of profit, back up their revenues if a foreign purchaser defaults on their payment, provide testing facilities and fund basic research. Their business operations are built on publicly financed scientific and industrial scaffolding.

The defense tech industry and VCs (and the increasing number of PE funds focused on defense) comprise the sharp point of the trend in reshaping the MIC. The subtext of a lot of their activity – both in buying up small firms and in providing early funding for startups – is a desire to disrupt the industry that they see as monopolistic and archaic and too close to government bureaucracy. The Pentagon sees this activity as tweaking its contracting practices to facilitate VC-supported firms as complementary pieces of the MIC, but the VCs and defense tech founders don’t see it this way. They see their activities as fundamentally transformative of a sclerotic industry past its useful life. To an extent this is visible in recent historical experience, because the path to innovation for the huge primes has for decades now been effectively external. Large primes see small tech firms developing marginally improved technologies (for geolocation, communication, data aggregation, etc) and they buy these firms and integrate their products and services into their existing large weapons platforms. The financial industry – VC firms, asset managers, PE fund managers – observed this pattern, and saw the opportunity this provided for reaping enormous financial returns. If they can find the small defense tech firms first (or fund them into existence) then they are the ones capitalizing on this relationship – not the big primes (anymore). These opportunities align with the prevailing ideologies and pathologies of the tech sector and big finance – whose members see themselves as modernizing, revolutionary actors that will restore us to a new golden age of American military and technological supremacy.

To achieve this ascent, VCs also identify startups that may be working on civilian technologies and steer them toward the development of those technologies for military applications. Google and Amazon of course are examples of large, well-established tech firms that develop technologies that have become critical to the US military, but
hundreds of smaller startups are replicating this experience at much earlier stages of development – working on, for example, technologies to improve navigation in driverless vehicles that can then be integrated into autonomous weapons targeting systems. Startups see that the funding for technologies with military applications is much more substantial so they may abandon civilian research and shift into becoming purely defense tech focused firms. Scale AI is a good example of this dynamic, but there are likely hundreds of similar cases for startups operating under the radar.

The VC firms themselves – their general partners and their more expertise-driven deal partners who find and evaluate potential firms to invest in, and who typically have a background in military and security organizations – supply policy papers and practical guidance to the Pentagon and the broader US national security establishment about how to reshape the contracting ecosystem to include more start-ups. For example, a recent white paper from one of the most well-known VC funds, Andreessen Horowitz, discussed the promise of “attributable” warfare, which uses technology to develop cheaper, simpler weapons in larger numbers and is all the rage in the VC-startup-private equity investment world. One element of this style of warfare is the Pentagon’s ‘Replicator’ initiative to develop drone swarm capabilities and field literally thousands (maybe 10s of thousands) of drones simultaneously. Such warfare is ‘attributable’ because each individual drone unit is very cheap and very fast to deploy, and as soon as it’s knocked out of the sky it’s already been replaced by two more.

However, this approach to weaponry requires an enormous amount of coding, and constant re-coding and re-writing which is not necessarily a capability that exists inside the big weapons manufacturers. Predictably, the response from major think tanks (whose primary funders are the MIC) is that these kinds of initiatives are ‘crowding out’ the focus on ‘long-range precision fire programs’ – which is code for the huge range of super expensive missile systems that are the MIC’s bread and butter.

VC firms and defense tech “disruptors” like Andreessen Horowitz/AH offer a blueprint for this transition to attributable warfare. As AH partners Porter Smith and David Ulevitch write: “As general computing platforms become applicable to a host of defense applications, from programming autonomous behavior to conducting live targeting analysis, sweeping advances in software and other technologies not originally designed for defense have unintentionally compounded computing’s impact on war….Responding to the paradigm shift requires reengineering the Pentagon’s DNA for a new era.” [author’s italics] The AH authors emphasize that this reengineering will allow for a “reduction in operational complexity, driving lower costs through commoditization” with “smaller” “modular modern production” that uses “‘just-in-time’ manufacturing techniques like 3D printing to cut latency” allowing for “decentralizing a military’s industrial footprint.”

---

1 The authors of this essay are a general partner (the more powerful people who actually find the money for the firm’s investments) and a ‘deal partner’ with a background in the US military, who provides subject
Words like “decentralizing”, “commoditization” and “just-in-time manufacturing” suggest outsourcing the military industrial supply chain and globalizing production, which may sound revolutionary. But of course most of the huge weapons platforms in use by the US military incorporate parts and materials produced all over the world, including a lot of stuff from China, so this supply chain shift is more about inserting these startups into the production chain that is currently dominated by the large prime contractors, which of course are not interested in the “cost-cutting” and “modular production” forms that would challenge their dominance of the military-industrial sector.

Part of VC’s allure to the Pentagon is precisely this “startup” ethos that it promises. In this configuration, the masters of VC depict the major primes as rigid dinosaurs structurally unable to develop or deliver the kind of hardware the military ‘truly’ needs, unless the Pentagon is willing to overhaul the nature of military contracting and weapons development to partner with VC. The Andreessen Horowitz paper suggests this dynamic by advocating for what they call “Broad and open API standards.” API refers to application programming interfaces, presumably to enable startups to explore adjustments to complex, expensive defense platforms to improve performance, durability, propose alternate configurations of cheaper or more widely-available materials outside the current military-industrial contracting model. Presumably, a reliance on these new standards would mean that some material the big primes consider proprietary would have to be opened up to tinkering. The favored historical reference for such a model (which the white paper directly references) is Lockheed’s famous SkunkWorks unit that operated like a start-up, free from corporate bureaucracy, responsible to no one, and able to ‘move fast and break things’ in order to achieve the development of new technologies more quickly.

VCs and defense tech cheerleaders see their biggest challenge as dismantling the procurement and regulatory bureaucracy in the US government — and use lobbying as the way to achieve that. Large VC firms have regulatory and government relations units inside their offices, they have their own parastatal agencies with the Pentagon, their own trade associations, conferences, university lecture tours, sponsored science competitions: the same tactics that we see from the traditional MIC wrapped in a cloak of efficiency, ‘disruption’ and American-style entrepreneurialism.

The primes (through their industry lobbying arm the Aerospace Industries Association) seem to be pressing the Pentagon to transform procurement in a way that will allow them to counter the VC-backed challenge. Their latest efforts focus on speeding up and expanding the scope for foreign military sales (so not sales to the USG but sales to foreign customers). Their recommendations include allowing foreign customers to purchase R&D services to design new weapons just like they would in the past purchase the already-made weapons; in essence making foreign customers into a venture capital

matter expertise on military-related projects within the fund.
https://a16z.com/how-the-u-s-can-rewire-the-pentagon-for-a-new-era/
pipeline for new product development. The AIA is also pushing for other modifications that would turbocharge technology transfer and joint ventures between primes and domestic military firms in major arms importing countries in order to secure future sales: an important arrangement since exports are an increasingly large percentage (as much as 40%) of the revenues of the primes — *which is way up from previous decades*. As the VC-backed defense tech startups see Pentagon procurement as their golden ticket to eventual ‘prime’ status, the current primes are increasingly seeing foreign exports — primarily to the capital-rich Gulf states — as the lynchpin to their increased profitability.

The real world justification du jour for this reshaping and decentralization in militarized production has of course been the war in Ukraine, which the Andreesen-Horowitz paper cites multiple times. We’ve witnessed the near-hysteria in the US military establishment over shortages of lower-tech munitions and drones caused by a war featuring two modern militaries burning through conventional weaponry at a rate much faster than recent asymmetric wars involving the US. But this new model of military supply (predictably) has something for every type of war-hawk, including those more focused on China, because, as the authors point out: “This regenerative capacity will be critical in other mission environments like the Pacific, where logistics chains could stretch thousands of miles.” So we see in these broad strokes how there are structural factors pushing toward this convergence of the financial sector, the tech sector, and the military industrial complex, and how specific actors are providing the tangible mechanisms (the banking tools, the policy prescriptions, etc) to hasten that convergence. If the rise of venture capital’s role in the MIC is a win-win for weapons financiers, it’s sure to cost Americans a huge price in blood and treasure.

**Shana Marshall** is Associate Director of the Institute for Middle East Studies and Assistant Research Faculty member at the George Washington University's Elliott School of International Affairs. She is also a board member of the Middle East Research & Information Project as well as the Political Economy Project. She earned her PhD in International Relations and Comparative Politics of the Middle East at the University of Maryland in 2012. Her dissertation, “The New Politics of Patronage: The Arms Trade and Clientelism in the Arab World” examines how Middle East governments use arms sales agreements to channel financial resources and economic privileges to domestic pro-regime elites. Her work has been published by The Middle East Report (MERIP), The International Journal of Middle East Studies, Middle East Policy, Jadaliyya, the Carnegie Middle East Center, and various edited volumes. Prior to coming to George Washington University, Dr. Marshall was a research fellow at The Crown Center for Middle East Studies at Brandeis University and the Niehaus Center for Globalization and Governance at Princeton University. Her current research focuses on patterns of military entrepreneurship in Egypt, Jordan, and the UAE, as well as the intersection of militarization and finance capital.
Join the discussion and learn more at securityincontext.org

Security in Context is a networked initiative that promotes critical research and policy analysis on peace and conflict. Despite decades of prioritizing security, our planet has become increasingly insecure. We examine why, and show how rethinking military and security policy can reveal more equitable and sustainable solutions to the world’s most pressing problems.

Security in Context was formally launched in October 2020 with generous support from the Carnegie Corporation of New York.