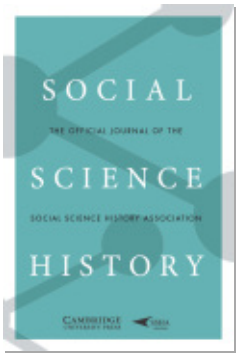
Comments on Alexander Field: The Economic Consequences of Mobilization for the Second World War



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Comments on Alexander Field: The Economic Consequences of Mobilization for the Second World War

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This excellent book provides an impressive blend of careful quantification through total factor productivity analysis with a cogent and well-documented narrative account of key episodes of U.S. mobilization during the Second World War. Table 8.10 (Field 2022: 337) titled "Field-Gordon TFP Growth Reconciliation" is an exemplary model for illustrating the issues and margins for disagreement that can arise in total factor productivity (hereafter TFP) analysis.

Field's basic thrust challenges the common view that U.S. mobilization for war constituted an economic miracle or at least a major economic policy success, arguing instead that the U.S. faced major production challenges and inefficiencies. I find Field's argument quite convincing.

The book itself is effectively 10 separate essays; an editor could have insisted on a more unified structure with an introductory chapter setting out a conceptual framework. But it is testimony to the richness and depth of Field's research that each essay could stand alone. Moreover, the chapters do resonate and reinforce each other. Thus chapters 3 and 4 on the challenges in mobilizing rubber and petroleum resources make much more plausible the findings on TFP declines in Chapters 2 and 8 and vice versa.

It warrants noting that the title of book is on the economic consequences of U.S. mobilization for the Second World War not the economic consequences of the Second World War itself; consequences of the war not directly related to mobilization such as the GI Bill and the brain gain of refugee scientific and intellectual talent from Europe are noted in some instances but not explored. However, perhaps an even more suitable title for Field's book would have been The Economics of Mobilization for the Second World War. Arguably the heart of the book is about mobilization itself and the challenges encountered in mobilization as much if not more so than in downstream consequences for the economy.

One important dimension warranting further exploration concerns the relevant counterfactuals to the U.S. mobilization policy which actually occurred. Mobilization as such is not a very clearly defined treatment effect since as Field's book so clearly documents it involves so many dimensions ranging from recruiting soldiers to redeploying factories from making automobiles to making bombers. Field's assessment is appropriate for actual mobilization efforts as conducted by the U.S. But that assessment poses the question of whether there were better alternatives and if so what were the salient margins of choice?

At one extreme, was there a possibility of staying out of WW II altogether? There was a vocal isolationist group in the U.S. However, after the Japanese attack on Pearl Harbor, the answer would seem most plausibly to be no. And I think Field is on reasonable ground to simply take U.S. entry into the war as a given. But perhaps a more isolationist stance on the part of the U.S. with less commitment to the then territory of Hawaii and less expression of support and willingness to supply Britain and allies during the initial outbreak of hostilities could have obviated both the Japanese attack on Pearl Harbor and the German U-boat effort on the Atlantic and Gulf coast. Also, U.S. support could have just been confined to material supplies rather than direct involvement with military personnel. A more intermediate pacificist approach would have been more delay in mobilization in 1942 and 1943. However, given the big ramp-up in mobilization that occurred in 1944, it is not clear how much one learns from that alternative. At the other extreme, the U.S. could have anticipated that war was inevitable and begun more active mobilization at an earlier stage. And some historical accounts suggest that there was some ramp-up in military mobilization in the 1920s and 1930s.

One issue of interpretation and context concerns the relationship between mobilization for the "hot" Second World War and the subsequent deterrence and containment effort of the Cold War between the U.S. and the USSR. It was in 1947 that the U.S. went from having a Department of War to a Department of Defense. While plans for the Pentagon building started in 1941 prior to the Pearl Harbor attack, it was not ready for occupancy until 1943. The building itself reflected efforts to centralize and coordinate military activities among the respective armed forces. Furthermore, there were issues in play here which continue to the present day regarding the extent to which security and defense considerations should be unified and concentrated in the executive branch or instead be subject to checks and balances from the legislative branch of government.

Defense expenditures relative to Gross Domestic Product (hereafter GDP) went from well under 3 percent prior to 1941 to 43 percent in 1944 and then while declining dramatically to 7.6 percent in 1948 subsequently remained above 10 percent through 1969 and above 5 percent by 1990 and the end of the Cold War. The Last 70 years have arguably seen the clear rise of the U.S. as a major superpower with far more engagement in world affairs than pre-war. Mobilization and military readiness would seem to mean something different in this context than pre-WWII. And it was in the late 1950s that President Eisenhower gave his warning about the insidious influence of the military-industrial complex. All this raises the issue of the extent to which the marked mobilization efforts for the Second World War constituted a ratchet effect that laid the foundation for the subsequent World superpower role of the U.S.

A more general counterfactual issue concerns alternative institutional and organizational forms for military mobilization. U.S. mobilization involved a mix of private enterprise, civilian bureaucracy, and military command. There have been competing narratives about their relative importance with Herman (2012) featuring the role of business enterprise while Wilson (2016) features the contributions of federal bureaucrats. And even within private enterprise, there was a mix of small and big business. And insofar as big business was a major player, Langlois (2023) has emphasized the importance of corporate hierarchies in the mobilization process. As I read Field he tends to side more with civilian government as doing the key heavy lifting though subject to serious limitations. Here comparative analysis involving the institutional and organizational forms for military mobilization employed elsewhere both for allied and axis powers would be informative. Field (2022: Chap.10, fn.11) only briefly mentions the German case. Field does seem to hold to the view that war mobilization is likely to be a shock done quite hurriedly and thus subject to inevitable inefficiencies due to sudden changes in output mix. The shock nature of sudden military mobilization raises the question of what lessons can be learned about how government should be interacting with private enterprise? Were there feasible organizational and institutional alternatives that would have been more effective? This is touched on but could have been elaborated on further in Chapter 10.

Field makes a compelling case in Chapter 3 that narratives such as those of the American Chemical Society headlining the development of synthetic rubber during the war as a major scientific triumph are overstated. However, I do wonder if book understates the long-term impact of the synthetic rubber effort on the tire and chemical industries. Was further incorporation of synthetic rubber and non-natural rubber material after the war into tires in part a reflection of WWII experience even if started before the war? Field makes a good case for lack of strong learning effects persisting after war through at least 1952. However some allowance should be made for the impact that the extended experience during the war with synthetic rubber had on the postwar decline in natural rubber as a component of tires to below that of synthetic rubber and fillers. And perhaps working with synthetic rubber lead to further development of polymer science along with the branching of some tire companies such as B.F. Goodrich away from tires into chemicals.

A final topic raised by Field's book that warrants further consideration is the implication of the war effort for subsequent trends in both corporate research and development (R&D) efforts and those of the federal government. Mowery and Rosenberg (1989, 2000) see the Second World War as a significant inflection point in the federal government's growing dominance over the private sector in overall R&D in the U.S. One issue for further consideration is whether this was a consequence of mobilization for war, per se, or rather was a consequence of the Second World War more broadly.

Field's book is economic history at its best and as such warrants wide readership beyond specialists in the history of the Second World War.

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Commentary on *The Economic Consequences of U.S. Mobilization for the Second World War*, by Alexander Field

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Alexander Field's new book gives us new estimates of US private sector productivity in 1941–48 using advanced methods similar to those used by the official statistical agencies. The book focuses especially on the manufacturing sector, which was centrally important to the nation's effort in World War II. Based on data about investment by the firms in that sector, he has constructed estimates of capital stocks and can construct total factor productivity estimates that take both labor and capital into account.

The overall finding is that productivity growth was slow during this period, although the US did famously produce staggering numbers of aircraft, ships, and tanks. The finding makes sense as Field explains it: manufacturers had to switch massively from producing consumer goods to new and uncommon military equipment, and then in the same decade back to consumer goods. This cost them greatly in resources, time, labor, and equipment.

Furthermore, some of these manufacturers depended on foreign sources for natural rubber, notably for tires, and with the Japanese conquest of Southeast Asia, 90