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Introduction by Paul Poast, University of Chicago

Give me a one-handed economist. All my economists say, “on the one hand... on the other hand.” That phrase, reputedly uttered by President Harry Truman, captures the core of economics as a discipline and practice. Call it cost-benefit analysis, decision making in recognition of tradeoffs, or an ability to think ‘on the margin.’ While such practices are of value during times of peace, their importance heightens during the exigencies of war. War exacerbates the scarcity which marks everyday life: there is less margin for error and less time to waste.

The need for an economic mindset was perhaps no greater than during the greatest of wars: the Second World War. The war’s onset was viewed, in part, as a product of economic deprivation, real (via the Great Depression) or perceived (via the Nazi idea of Lebensraum). The war’s fighting was marked by attrition, as it ground down and decimated economies (though some, like the United States’ economy, expanded). The war’s end called for a reimagining of the global economy.

It is for these reasons that Allan Bollard, in his beautifully written *Economists at War*, focuses on the lives and contributions of seven economic figures during the lead up, over the course of, and in the aftermath of World War II: Takahashi Korekiyo of Japan, H.H. Chung of China, Hjalmar Schacht of Germany, John Maynard Keynes of Britain, Leonid Kantorovich of the Soviet Union, and Wassily Leontief and John Von Neumann of the United States. Bollard’s goal is to show how war can drive innovation, but by focusing on how the economic thinking of these individuals was shaped by war and economic crisis. As he writes, “this is not an economic history of war, not an academic study of economic policies, not a biographical study, and most decidedly not a guide on how to be economically effective in wartime. Rather it is a description of the complex and sometimes terrible positions these economists found themselves in, and how they used their economics and their personalities to address this” (viii).

Bollard’s book provides biographical narratives of these seven key individuals (and they were indeed key, not only to the war efforts, but – as with the case of Takahashi and Schacht – for the pre-war economic conditions). The narratives illustrate how these individuals sought to ‘bridge the gap’ between the academic and policy worlds, and how their respective governments sought and valued such expertise. Not all of these men (and, as Bollard admits, they are all men) were academic economists. But for those who were, they capture an era when ‘the gap’ between the academic and policy worlds was seemingly smaller than it is today: those in policy were as much academics as those squirreled away in their Ivory Towers.

While all of the men were prominent, perhaps the two best known globally also exemplify this policy-academic nexus: the two ‘Johns’. One John, Von Neumann, spent his pre-war years at the hallowed Institute of Advanced Study, where he would go on to make major academic contributions to a plethora of disciplines (from pure mathematics, to economics, computing, statics, physics....and so forth). With the advent of the Manhattan Project, Von Neumann’s prodigious knowledge became essential to the government. But what stands out to me isn’t that he served on what was arguably the defining scientific project of the time, but that this wasn’t the end of his government service. A sought-after government consultant, he eventually served as a commissioner for the Atomic Energy Commission and then headed the U.S. government’s ICBM committee.

While Von Neumann went from quintessential academic to government bureaucrat, the other John, Maynard Keynes, took a different and more public path. An infamous iconoclast, Keynes hopped back and forth between academia and government service. Prior to the First World War, this entailed civil service in India affairs, along with lectureships at Cambridge. It was during the First World War that Keynes moved more squarely into economic affairs, serving in the Treasury. He famously attended (or, more accurately, famously left) the Versailles negotiations. Following his departure in disgust at the economic hardships being imposed on Germany, he wrote *The Economic Consequences of the Peace*. This treatise set the stage for him to be embraced by the public as a type of economic soothsayer, particularly once hyperinflation.

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befell Germany in 1923. Throughout the 1920s and early 1930s, Keynes largely focused on his academic pursuits, but always with an eye to influence policy. This famously took shape with the publication of his *General Theory* in 1936, which influenced the counter-cyclical government spending policies being used to address the Great Depression.² Like Von Neumann, he moved back into government at the start of the Second World War, serving first as a Director for the Bank of England, before leading the British delegation of the World Bank commission. In his role at the Bretton Woods conference of 1944, he put forward his plan for an International Clearing Bank – a type of global central bank. His plan was ultimately not adopted, largely because, as then British Ambassador to the United States Lord Halifax warned Keynes prior to the conference, “it’s true they have the money bags but we have all the brains” (with the “they” being the Americans).³

As a book lying at the intersection of history and economics (though not itself a work of economic history), it is most appropriate that the book is reviewed by a distinguished historian, Laura Hein, and a distinguished economist, Annalisa Rosselli. Both offer praise. Hein calls it a “genre-busting book” that is “thought-provoking,” while Rosselli calls it “highly original,” highlighting how Bollard tracked down connections in the lives and works of the seven economists. Rosselli also notes how, by not limiting itself to economists from the Anglo-American world, the book offers a glimpse of “global history of economics.” Of course, the wide-ranging nature of the text leads Rosselli to raise concerns that the book is doing too much (a challenge of any text seeking to offer a global perspective), thereby shortchanging the discussion of certain key wartime economic policies, such as rationing and price controls. Other criticisms focus on inaccuracies and undersourcing in the narrative, how Bollard describes certain individuals (Hein questions Bollard’s admiration of Von Neumann), or whether other individuals should have been included (Hein wonders if T.V. Soong should have been accorded more prominence in the narrative, rather than H.H. Kung). Bollard does not address these critiques directly in his response. Instead, he uses the opportunity to clarify what he intended to accomplish with the book given its non-traditional format and to make connections to the current global COVID-19 crisis (also understandable, since addressing it, like World War II, requires a societal-level effort grounded in logistics and the operation of the economy).

For my part, as a scholar of international relations, I recognize the importance of focusing on the contributions of individuals during wartime, be they the leaders guiding the country or the bureaucrats who make the machinery work. As a scholar of the political economy of security, I am all too aware that a war-effort is not simply a product of ‘resolve,’ ‘political will,’ or even ‘military prowess.’ Instead, it often boils down to the proverbial ‘sinew of war’: money and material resources. While one can quibble about the omission of particular individuals (for me, I would have added Jean Monnet), it is difficult to argue against the individuals Bollard did chose to highlight. Given France’s quick defeat early in the war, it makes sense to focus on key economic figures within the primary belligerent powers: Germany (Schacht), Japan (Korekiyo), The Soviet Union (Kantorovich), China (Kung), as well as Britain (Keynes), and the United States (Von Neumann and Leontief). Just as studying Alexander Hamilton, the United States’ first Secretary of the Treasury, offers insights into the actual processes that shaped the early American Republic, so will exploring the lives of these seven economic figures enlighten the processes that brought about, carried out, and rebuilt following the Second World War.

**Participants:**

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**Annalisa Rosselli** is Professor of History of Economic Thought at the University of Rome Tor Vergata, Italy. She did her post-graduate studies at the London School of Economics and at the University of California, Los Angeles. She was President of the Italian Association for the History of Political Economy from 2009 to 2012, President of the European Society for the History of Economic Thought from 2012 to 2014, and President of the Italian Economic Society from 2016 to 2019. She is member of the Accademia dei Lincei, the oldest scientific academy in Europe. She is the author of many articles on history of monetary theory, Classical Political Economy, Cambridge School, Keynesian policies in the 1950s.
Alan Bollard has written a genre-busting book that reflects his decades of observation of global economic trends during a long and distinguished career in international economic management, including serving as Governor of the Reserve Bank of the New Zealand Treasury and as Executive Director of the Asia Pacific Economic Cooperation Secretariat. He begins with three trenchant observations about the modern history of economic techniques and policies and has braided them together into a single thought-provoking volume. The first is that conventional histories of wars consistently slight the contributions of economics. As Bollard puts it “The military has always known the importance of manpower, materiel, and supply routes but they do not usually think about how to finance them, nor about how to manage an economy faced with a large military disruption” (viii-ix). Next is the profound interconnectedness of the twentieth-century globe; although Bollard’s topic is a conflict that pitted most of the major nations of the world against each other, many of the most important wartime economic ideas and institutional innovations ranged across those battle lines. And to a far greater extent than one might suppose, the profiled economists themselves met each other, shared teachers and students and, of course, read each other’s work with interest.

Finally, Bollard focuses directly on the fact that highly successful economists are unusual people. Not many individuals have the combination of skills required to both come up with major economic innovations and convince others to adopt them. In fact, this mix is so unusual that qualities that typically disqualify someone for great influence, like reflexive combativeness, can be overlooked. After a professional lifetime of rubbing elbows with this distinctive subset of humanity, Bollard is calling our attention to the ways that, for better and for worse, professional economists have shaped our world. As he shows, the seven men highlighted here invented a range of ingenious economic methodologies that remain essential today. These innovations include using economics as a consistent policy tool, in other words, the entire field of macroeconomics itself, not to mention the postwar Bretton-Woods international monetary system. Moreover, the specific tools his protagonists created include managerial economics, national income accounting, general equilibrium theory, input-output analysis, game theory, and linear programming. Bollard actually discusses two distinct kinds of wartime economic contributions; the first three of his seven economists focused on how to finance the war without wrecking the economy while the last three directly contributed, in very different ways, to improving the accuracy and intensity with which the military could lay waste to the enemy. John Maynard Keynes, the extraordinarily influential British economist and policymaker who inhabits the keystone chapter of the book’s narrative arc, did both.

Bollard is certainly right in his first observation, that World War II’s impact is only inadequately captured by conventional attention to military strategy, failed diplomacy, and ideological conflicts. In their introduction to volume III of the recent Cambridge History of the Second World War, Michael Geyer and Adam Tooze share Bollard’s concern that the centrality of economic mobilization is profoundly underappreciated by historians, despite the considerable scholarship on the economic dimensions of the various combatant states. As they put it, the economy, society and culture are all “dynamic fields of violent energy” that “are not merely frames or resources for war…. They are the energy that makes war as a military and political and ideological project” (5). Expressed more simply, total mobilization of the economy changed everything else, not always in intended ways. And when that wartime mobilization ended, none of the affected societies went back to its prewar configurations.

The authors in the Cambridge History also stress the importance of Bollard’s second point, that both rationalizing and financing the war were fundamentally transnational and often global activities, despite the fact that the key actors were strongly motivated by intense nationalism. Bollard shows that one reason for this convergence was that economists everywhere in the 1930s and 1940s shared a global lived experience and drew, if not identical, similarly informed, lessons from them. World War I had demonstrated that resource mobilization, for example, was crucial to winning any large war. Indeed, strategic planners of all kinds absorbed this point, which explains why military leaders were so often willing to heed

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the advice of the often extremely annoying economists. In Japan, the key figure who most effectively focused military attention on economic resources was Army officer Ishiwara Kanji, best known as the architect of the Manchurian Incident in September 1931. In a position paper he wrote in May 1931 to explain why Japan should seize Manchuria, he argued for annexing the territory to serve as a political and military buffer against the Soviets but also insisted that Japan should control it because Manchurian iron ore, coal, and agricultural products would shore up the empire’s military capabilities. This was part of his larger insight that the next war would have to be a “total war,” requiring all governments to mobilize many kinds of economic and social resources and direct them to military needs. Bollard’s thesis is elegantly supported by the fact that Ishiwara developed some of these views when dispatched by the Japanese Imperial Army to Germany from 1922 to 1925.

Financing war is a tricky business because short-term and long-term interests are in direct conflict with each other. Governments can shop for shiny new weapons and hordes of soldiers by simply printing more money. That is by far the easiest way to proceed: military leaders are happy because they get their weapons of mass destruction, soldiers get paid, and so do the manufacturers and merchants who produce and transport everything. Bollard’s first economist, Japanese Finance Minister Takahashi Korekiyo, famously found a tripartite way in the early 1930s to accomplish this goal: he uncoupled the Japanese economy from the gold standard to give the government better control over the international value of the yen, eased credit to domestic businesses while preventing them from taking profits out of the country to expand production, and lavishly spent public funds on the military (19-20). Bollard’s third economist, Hjalmar Schacht, who was at that time Nazi Germany’s Minister of Economics, developed a similar policy cocktail, and also added some clever financial instruments to channel money more efficiently to military contractors alone (87-88).

But despite general immediate satisfaction, expanding the money supply without countervailing steps means that the currency’s value will decline over time, making the government itself incredibly vulnerable. This fact matters greatly to all responsible economists. Schacht, who had been instrumental in ending the hyper-inflation of the German mark in the 1920s as President of the Reichsbank in the Weimar government, was typical of economists in seeing rampant inflation as an unacceptable risk, meaning that he always intended to eventually revert to a more cautious policy. Takahashi shared this stance, as did nearly all of Japan’s other finance economists, some of whom had studied or worked in Weimar Germany and so based their professional opinions on personal observation of hyper-inflation’s destructiveness as well as shared economic theory. So did T. V. Soong, who makes a brief appearance in Bollard’s book before being elbowed aside in favor of H.H. Kung precisely because Soong advocated for controlling military spending in order to prevent high inflation rates (42-43). Both men served as Premiers of the Republic of China. Bollard also takes pains to point out that a central contribution Keynes made to Great Britain’s war was to find innovative ways to prevent excessive inflation, mainly by inventing mechanisms to reduce civilian demand. Even though Keynes is most famous for his earlier argument that in deflationary conditions expansionary policies will jump-start economic activity and inflation will not damage that recovery, he too agreed that good economic policy required controlling inflation (114-121). In other words, although economists across the globe differed among themselves on precisely where to draw the line on inflation, they agreed on the nature and high seriousness of the problems created by losing control over the money supply. This explains why the postwar international monetary system was based as much on German as on Allied economic thinking.

But, as Bollard emphasizes, even though economists generally concurred (and still do) on how to think about financing war, their consensus was not shared by everyone else. Takahashi, Soong, and Schacht each ran into trouble when they decided that the danger of inflation had increased so much that the printing presses should be shut down. Military men in particular, regardless of the color of their uniforms, simply saw their concerns about money as both unpatriotic and grubby. And they made their views known. Takahashi was hacked to death on February 26, 1936 by Army officers who were incensed that financial constraints might impede their plan for total war. (Although they were inspired by Ishiwara Kanji’s

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seizure of Manchuria, Ishiwara, who, as noted above, did understand economics, denounced them). Soong found it prudent to step away from national financial affairs in 1933, although he served as Foreign Minister and Premier during World War II, because of a similar military attitude, in his case embodied by his brother-in-law, Chiang Kai-shek. Perhaps this early strategic retreat explains why Bollard did not choose to profile Soong but instead concentrated on their mutual brother-in-law, H. H. Kung, who seems not to have made any contributions to economic policy or economic theory, although he did arrange some major international loans to help China in its war. These were soon nullified by rampant inflation in the early 1940s, which Kung personally engineered despite fully understanding the consequences. He arranged to have massive amounts of currency printed in Hong Kong and flown to Chungking. One of the attractions of that activity for Kung was that he could relocate with his wife and children to British-leased Hong Kong, where, according to Bollard, he felt safer than in the company of his extended family (235). Schacht presided over economic expansion in the 1930s, thereby earning Hitler’s approval, but he too soon “felt that he was on a treadmill to feed the insatiable military machine” (88). Since Schacht was also an extremely rude and arrogant man, it is not terribly surprising that by mid-1938 he was out of power.

Bollard’s last three economists developed novel methodologies to more efficiently produce war materiel at home and prevent their foes from doing the same. Their capacity to abstract and manipulate theoretical economic dynamics elicits Bollard’s admiration but this quality did not necessarily make their lives easier. The ideological constraints faced by the academic mathematician Leonid Kantorovich in the Soviet Union were particularly interesting because they cut to the heart of his professional contribution, which was to use mathematics to better allocate scarce resources. His methods were first applied to the problem of getting the most plywood out of logs. Stalin—correctly—disliked mathematical economics because it assumed legitimacy on the grounds of abstract efficiency, untethered to socialism. Bollard characterizes Kantorovich as a “calculating ice man” (137) but he seems to me to have been a justifiably terrified man. His more pugnacious compatriot, Wassily Leontief, who later and independently extended Kantorovich’s contribution by working out how to analyze the inter-industry effects of economic inputs, sensibly left the Soviet Union before angering too many powerful people. Meanwhile, elsewhere in the world, including Japan, politically left-leaning economists thought of precisely this quality of their discipline as most conducive to socialism because efficient allocation makes it easier for a greater number of people to share in the wealth. University of Tokyo professor Arisawa Hiromi built Japan’s postwar economic recovery plan on Leontief’s insights—although, rather than trying to bomb the “bottleneck” components of tank production as Leontief did (195), he threw resources at those bottlenecks in order to smash them. Since he had spent many months in prison for his published economic ideas, he would have instantly understood Kantorovich’s fears. Bollard is most clearly claiming allegiance to his own kind when discussing the final economist, John von Neumann, because he is so very impressed by his analytical firepower. Von Neumann was a child prodigy who completed his third Ph.D. at age twenty-two and he also more or less single-handedly invented game theory, the doctrine of Mutually Assured Destruction, and the policy of nuclear brinksmanship, nearly ending life on earth several times. And here is where I part company with Bollard. Sometimes the smartest men in the room are also the stupidest ones.

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It is hard to label this book. As the author himself acknowledges, it is not a book on economic history (although reconstruction of the economic circumstances is meticulously conducted) nor on history of economics (although the economic beliefs of the protagonists often play an important role). It is not even an academic biographical work, since there is not much investigation into primary sources and the story is based mainly on pre-existent studies. The best way to describe the book is as a set of intertwined biographies, and one that is highly original in two respects. The first is that the author tracks down connections between the seven eminent men whose lives and works he recounts. Here ‘connections’ means not only that they have important things in common – typically, they all were exceptionally gifted and held prominent positions in politics or in science while their countries were at war – but they also actually met in various circumstances or shared colleagues, teachers, research centres or networks. An interesting diagram in one of the opening pages well captures the unusual structure of the book with its frequent references to meetings and “other connections” between the protagonists (xvii). I am aware that the comparison is rather bold, but this reminded me of a famous award-winning film by Robert Altman (Short Cuts), praised precisely for the originality of its composition, which featured the paths of the main characters continuously and randomly interweaving as their stories developed. Finding the connections must have been a challenging and demanding task for the author, since there are huge differences between the seven men. They do not even belong to the same generation; their birth dates span from 1854 to 1911. The denomination of “economist” itself must be understood in a very broad sense for some of them who had no formal training in economics.

The second original element of the book – which I greatly appreciated – is the geographical origin of the economists that the author chose to describe: Japan (Takahashi Korekiyo), China (Kung Hsiang-hsi), Germany (Hjalmar Schacht), the United Kingdom (John Maynard Keynes), Russia (Leonid Kantorovich), and the United States, where two European émigrés, Wassily Leontief from Russia and John Von Neumann from Hungary, settled while still in their twenties. Global economic history books have recently enjoyed great success in the Western world, revealing to many Atlantic-centric readers a world they were perhaps unaware of, one which is much more interconnected than is usually assumed, with wealth and potential for technological advance concentrated in areas scattered all over the globe. A global history of economics has yet to develop, in spite of some attempts at tracing the diffusion of (western) economic ideas and the reception of a few (western) authors. This book gives us a glimpse of how interesting it can be and how much we can learn by comparing reactions to the same problems under different circumstances and in political and cultural contexts that are very far apart. For example, the idea of the sustainability of the debt burden depends greatly on the degree of democracy in a country and the willingness of its government to force banks, the business community, and people to lend to the state. Likewise, scarcity of manpower is measured with a different yardstick when the country decides to keep women out of the labour force (resorting, rather, to slave labour, as imperialist Japan and Nazi Germany did).

Under the general heading of the contribution of the economists to the war effort, the author addresses several issues, perhaps too many for a single book. How to pay for the war and related monetary and financial problems is the dominant theme, one which is probably also dictated by the author’s experience as a central banker. Less attention is paid to other traditional instruments in wartime such as price control, rationing, or the problems of the real economy in general. However, the unbalance is justified, since the author does not set out to provide a manual on war economics, but is interested in revealing us one general story and several individual ones that offer valuable food for thought. The general story is that of the conflict, underway since the eighteenth century, between two different views of the wellbeing of people and relations among nations. On one side, we have those who think that the only way to increase the wealth of a nation is to

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9 See, for example, Gilbert Faccarello and Masashi Izumo, eds., The Reception of David Ricardo in Continental Europe and Japan (London: Routledge, 2014) and, in general, the recently published Routledge series in national histories of economic thought.
grab the resources of the others, who are all potential enemies and rivals in a world dominated by scarcity. In this respect Adolf Hitler and his finance minister Schacht, as the book shows, spoke two different languages because Hitler was thinking of conquering and exploiting a good part of Europe to affirm the superiority of the Aryan race and certainly could not be bothered about an increase in public debt.

On the other side are those who believe that nations are not engaged in a zero–sum game that makes one richer because the others become poorer, but that scarcity can be defeated through growth and that growth is fuelled by mutual relations and open borders. Such was Adam Smith’s argument against the mercantilists when, back in the eighteenth century, he opposed an expansion of the British Empire, which entailed certain costs and very uncertain benefits. And this was also the position of two of the heroes of the book, Takahashi and Keynes. Both, although living on opposite sides of the world and with completely different backgrounds, feared militarism. They warned their respective governments against forcing on the defeated enemy unsustainable conditions of peace that would only kindle long-lasting resentment. They both had bold plans to promote trade and international cooperation to the benefit of their own countries. In 1921 Takahashi promoted the idea of an Asian bloc (14) since he understood the advantages that would accrue to Japan from trading with an industrialized China free from Japanese military occupation and payment of war indemnities. Similarly, Keynes prepared his celebrated plan for Bretton Woods (127 and ff.). He proposed an International Clearing Union that would have stripped any country of the privilege of issuing the international currency. Although Bollard does not mention this, it is worth recalling that the plan also included an incentive for the country with a trade surplus to reflate its economy, boosting world demand and helping deficit countries to correct their disequilibrium. Needless to say, adoption of this plan would have dramatically reduced present international tensions.10

The individual stories told in the book are also fascinating. I particularly liked, perhaps because it is less known, that of H.H. Kung, who was several times minister in Chiang Kai-shek’s Kuomintang government. The world of corruption, greed, nepotism, total lack of scruples, and complete absence of ideals which Kung personified may help explain how Communism found so many followers in China. There is also a woman in his story, his wife Ai-ling, who possibly died “the richest woman in the world” (266). Ambitious, insatiable, manipulative, prepared to rid herself of her opponents by any means including assassination, she belongs to a tradition of evil and powerful women of whom the history of China has offered many – even recent – examples, perhaps heightened in misogynistic popular imaginings.

In such a long book, which is rich in information but poor in footnotes and references, presumably to make it more readable, there are inevitably some inaccuracies. For example, the famous Cambridge economist Joan Robinson did not travel to the Soviet Union “extensively” (163). She was not an admirer of Soviet leader Joseph Stalin (107). The Communist country she admired was China, which she visited several times. For a long time she placed great hopes in Mao-Zedong’s Cultural Revolution, precisely because she thought that Chinese development was following a different path from that of the Soviet Union. She began to study Marxism seriously after the outbreak of the Second World War and her An Essay on Marxian Economics came out in 1942.11 Although Keynes might have had a draft of the Essay with him when he went to the Soviet Union in 1940, this was impossible in 1936 (107).

Also Von Neumann’s 1945 article12 was not “rediscovered” by the US economist Roy Weintraub (224) in the 1990s. It was well known to the participants in the debate on the interpretation of Piero Sraffa’s Production of Commodities by Means of

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Commodities\textsuperscript{13} which was published in 1960 and determined prices through a set of linear equations. Sraffa’s work was at the centre of the capital controversy that involved many famous economists on both sides on the Atlantic in the 1960s. With the aim of clarifying Sraffa’s contribution, references to Von Neumann model were frequent.\textsuperscript{14}

Moreover, Leontief did not trust Soviet planning and did not think much of Marxism-Leninism, but it is stretching the point to deny that Marx had any influence on him (186). He certainly knew Marx’s ”simple reproduction” scheme which is a two-sector input-output model: he had studied Das Kapital and his supervisor in Berlin was Ladislaus Bortkiewicz, who had worked on Karl Marx’s equations.\textsuperscript{15}

Finally, there is an inconsistency between Bollard’s admiration for Keynes’s “economic genius,” (viii) and his interpretation of Keynes’s contribution to the theory of unemployment, which is identified with the assumption of sticky wages. But it certainly does not take an economic genius to say that if prices are rigid markets do not clear! The core of the General Theory,\textsuperscript{16} where Keynes argued that unemployment is neither caused nor cured exclusively on the labour market, is disregarded. He devoted a whole chapter to arguing that wage flexibility is a remedy for unemployment if and only if it affects aggregate demand. But Bollard seems to overlook this, as do most macroeconomic textbooks.\textsuperscript{17}

Having said this, Economists at War makes pleasant reading with a strong pacifist message, reminding us of the enormous sacrifice of human lives, wealth, and freedom that all wars entail. Let us hope that the economists of the twenty-first century will not forget it.

\textsuperscript{13} Piero Sraffa, Production of Commodities by Means of Commodities (Cambridge: Cambridge University Press, 1960).

\textsuperscript{14} See, for example, Gilbert Abraham-Fois and Edmond Berrebi, Theory of Value, Prices and Accumulation. A Mathematical Integration of Marx, Von Neumann and Sraffa (Cambridge: Cambridge University Press, 1976); Bertram Schefold, ”Von Neumann and Sraffa: Mathematical Equivalence and Conceptual Difference,” The Economic Journal, 90, 357 (March 1980): 140-156.

\textsuperscript{15} Ladislaus von Bortkiewicz, ”Wertrechnung und Preisrechnung im Marxschen System” [Value Calculation and Price Calculation in Marx’s System], Archiv für Socialwissenschaft und Socialpolitik XXII and XXV (Tübingen: J.C.B. Mohr, 1906-1907).


\textsuperscript{17} Many textbooks identify wage rigidity as a key feature of Keynes’ macroeconomics. See, for example, David Romer, Advanced Macroeconomics, 4\textsuperscript{th} ed. (New York: McGraw Hill, 2012), at 245.
Response by Alan Bollard, Victoria University of Wellington

Introduction

My sincere thanks to Masami Kimura and the H-Diplo editors for organizing this roundtable, to Professor Paul Poast for writing the introduction, and to Professors Hein and Rosselli for their reviews of my book. After the years involved in writing, it is a valuable opportunity for an author to read such deep and thoughtful analyses. Actually, the reviewers provide two different analyses, from the perspectives of an historian and an economist, which offers a case of biangulation – how the book is perceived from two different disciplinary approaches.

The Book

In their various ways, the reviewers all point to the problem of classifying this book. It tells the stories of seven prominent economists during World War II, but it does not claim to be an economic history of war, nor an academic study of economic policy, nor a set of biographies, and definitely not a guide about how to finance a war. What I hope it achieves is an insightful and interesting view of the role of economics in wartime, seen through the stories of some extraordinary men (yes, all men), professional economists in positions of influence during World War II, which was one of the most extraordinary times of the century.

The book is about the serious roles economists play in wartime: fighting wars by using financial tools to raise funds, macroeconomic policy to stabilise volatile demand and supply, and microeconomic tools to improve military efficiency. But rather than serving as the basis for a standard text on such topics, the experiences of the seven economists is anything but dry, because they all lived exciting and shocking lives. I selected the seven with care; (almost) all were formally trained as economists, all were impressive personalities, all had interesting back stories, and all had a major influence on their country’s war efforts. As noted by the reviewers, they shared global lived experience. A colleague suggested I use Lawrence of Arabia’s famous title “Seven Pillars of Wisdom”\(^1\); but conventional wisdom is not something that these men had in common. They were all clever, but some lacked judgement and others lacked morality.

I have always been interested in biographies of economists, and the way a good biographer can use an interesting life story to illustrate the arguments of the times. Perhaps the best example is Robert Skidelsky’s wonderful three-volume biography of John Maynard Keynes.\(^2\) I had already written a biography of Bill Phillips, the famous New Zealand economist who wrote the original Phillips curve paper.\(^3\) His economic insights mirrored his life experience, and offered a fascinating way to discuss hydraulic machines, dynamic modelling, and econometric estimation. I wanted to see if I could use that technique again.

I selected my subjects so that I could tell a coherent story by linking them together, which revealed unexpected connections – who knew that Maynard Keynes and Leonid Kantorovich shared worries about Leningrad under siege, that H.H. Kung barter-traded with Hjalmar Schacht and Adolf Hitler, that in their youth Wassily Leontief and John von Neumann shared

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experiences of civil war and pogroms. I wanted wide geographical coverage to reflect the fact that this really was a world war, and in my view dated back to the earlier invasion of China by Japan. In addition, each profile focusses on a two-year period.

There were obvious risks in my approach. As the reviewers point out, I did not access many primary sources, but certainly undertook a huge amount of secondary research, extracting information and views from many different sources. Different economists might have offered different conclusions. Seven case studies offer a narrow foundation to build a bigger picture. And maybe it would not be possible to write a book that was academically sound, yet of interest to a more popular readership. We all have daytime jobs and other priorities. I only committed to this book because I wanted to learn more about the period myself, and ultimately because I enjoy writing.

Economists and COVID

Economic commentators looking to put the current COVID crisis into context frequently suggest some analogies with World War II. Both were huge global shocks, both delivered economic surprises and challenges, both damaged countries and lifestyles, both caused public concern and a huge increase in the role of government. In turn, this required a bigger and more controlling government sector, a huge increase in public debt, an urgent rethink of global supply chains among new geopolitically powerful players, and some very difficult public policy choices that needed to be taken in a highly uncertain environment.

There are a few interesting lessons today from World War II, about how to scale up the economy in a crisis, how to operate under severe restrictions, the borrowing consequences, how to pay for it, and how to stabilise the economy afterwards.

How can government scale-up economic, administrative and political roles at very short notice? All the belligerent governments had to do this in wartime, and those with authoritarian governments (Germany, Japan, and the Soviet Union) were able to do it fastest, though the U.S. market-based allocation ultimately proved more efficient. Another lesson for our future: after the War it was difficult to demobilise (except where there was a strong political will as in the United States) leaving countries with permanently enlarged government sectors and ongoing implications for public production, regulation, and policy.

A current COVID problem is how to keep the economy moving under lockdown restrictions, and how to optimally reopen the economy through targeted support and public health interventions. This speaks to Leontief’s input-output analysis that was originally invented to help achieve inter-industry efficiency, but was also used in wartime to identify key bottleneck sectors for bombing.

Wartime brought a huge increase in borrowing, large public deficits, and consequently a build-up in public debt. Ironically, these new debt levels helped establish today’s huge and liquid sovereign financing markets. The massive global fiscal stimulus being applied to COVID economies today means that government debt will again reach new level, with consequent demands on sovereign markets. In World War II the options depended on whether international or domestic funding markets were still operational. Today there is an assumption that sovereign markets will remain functional, but the Wartime experience tells us not to assume this.

The next question is how to pay for all this? Here the obvious pioneer was Keynes, with his 1940 publication: *How to Pay for the War* 21. He cut through traditional assumptions about wartime rationing by articulating the economist’s options to address demand and supply management. He pointed out that there were some policy choices about when to pay and how to pay, and these had major implications for who would bear the brunt of the burden. As well as rationing consumption,

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possible economic tools included increasing tax rates, delaying tax obligations, issuing war bonds, applying special levies, reducing other government expenditure, or relying on future growth to reduce debt.

Keynes also offered some pointers to another COVID conundrum: how to stabilise the economy after the event. The costs of war and COVID go much wider than the fiscal accounts. Both events caused economic damage to households and businesses, lowering revenue and reducing asset values. As well as causing static costs, both events imply dynamic distortions to the economy. On the positive side, World War II spawned many civilian technological innovations. It is too early to tell whether the new lockdown communication technologies could have similar impact.

The post-war geopolitical disruption was viewed in the United States (and to some extent the Soviet Union) through the lens of von Neumann’s game theory, which modelled military tactics by assessing the calculating responses of the opponent. With the COVID-era rise of China, game theory is again being used by American tacticians, though the approach of President Donald Trump seems wedded to a less sophisticated win-lose framework.

Where to from Here?

I am now at work on my next book, *Economists at War* left many questions unanswered, and left me wanting to write a sequel. The working title is *Economists in the Cold*, and it focuses on the role of economists in that next major geopolitical disruption – the early years of the Cold War. It features a different cast of economists, with newer economic developments, this time with a tension between the technocrats and the ideologues from the Western bloc, from the Eastern bloc, and also from the North-South divide.

In *Economists at War* I have drawn some broad parallels between World War II and the COVID pandemic. Are there any equivalent parallels to be drawn between the early Cold War years as portrayed in *Economists in the Cold*, and the “new Cold War” between the United States and China today? This book is a few years away from publication, but the very useful comments and criticism from my three reviewers have given me some new insights, new angles to work from, and I hope will result in me being able to produce a better work as a result. I thank them.