

# H-Diplo ROUNDTABLE XXIII-28

**Stefan J. Link.** *Forging Global Fordism: Nazi Germany, Soviet Russia, and the Contest over the Industrial Order.* Princeton: Princeton University Press, 2000. ISBN: 9780691177540 (hardcover, \$39.95).

7 March 2022 | <https://hdiplo.org/to/RT23-28>

Editor: Diane Labrosse | Commissioning Editor: Taomo Zhou | Production Editor: George Fujii

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INTRODUCTION BY NELSON LICHTENSTEIN, UNIVERSITY OF CALIFORNIA, SANTA BARBARA

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The publication of Stefan Link's *Forging Global Fordism: Nazi Germany, Soviet Russia, and the Contest over the Industrial Order* provides the occasion for a stimulating symposium involving six commentators, who bring to the discussion expertise in German, Russian, US and Chinese economic, political, and cultural history, and a splendid response by the author.<sup>1</sup> Link's book is a rich and nuanced industrial and ideological history, path-breaking in the way it both interrogates the meaning of Fordism as it emerged in the US and then was adopted and adapted in Germany and the Soviet Union between the 1920s and the end of the Second World War. But the book raises a set of even larger issues upon which these commentators opine. Three are of most importance. First, what was the relationship between Fordist ideology, what Link calls "populist producerism," and the actual deployment of flow production in Germany and the Soviet Union? And conversely, how did the mobilizing ideologies advanced by these two highly ideological regimes actually impact the organization and technology of the Fordist production regimes that were installed in their factories. Second, and closely related, how decisive was the role of the state in the deployment and success of Fordism as it was deployed, especially during the battle for production during World War II? Why were the Soviets more successful than the Nazis in making mass production work? And finally, this symposium considers one of Link's most provocative historiographical gambits: was interwar Fordism a form of illiberal globalism, especially among the "late-developing" powers, that rivaled the U.S. centered internationalism which has monopolized so much scholarly and political attention since the Second World War? And if that is the case, then how do we square this form of technology transfer globalization with the economic autarky that we normally associate, not only with the Soviets and the Nazis, but with many other regimes determined to catch up with the Anglo-Americans?

**Participants:**

**Stefan Link** is Associate Professor of History at Dartmouth College.

**Nelson Lichtenstein** is Research Professor at the University of California, Santa Barbara. He has written or edited numerous books, including a study of industrial labor during World War II, a biography of labor leader Walter Reuther, a history of Wal-Mart, and studies of American capitalism, right-wing social thought, the Port Huron Statement, and Chinese-American supply chains. His most recent edited work is *Capitalism Contested: The New Deal and Its Legacies*, co-edited with Romain Huret and Jean-Christian Vinel (University of Pennsylvania Press, 2020). Lichtenstein is now writing a history of economic policy and politics during the Clinton Administration. He writes for *Jacobin*, *Dissent*, and *American Prospect*.

**Kristy Ironside** is Assistant Professor of Russian History at McGill University. Her book, *A Full-Value Ruble: The Promise of Prosperity in the Postwar Soviet Union*, was recently published by Harvard University Press.

**Roman Köster** is Senior Researcher in an edition project on Germany's global economic relations during the nineteenth twentieth century at the Bavarian Academy of Science (Bayerische Akademie der Wissenschaften).

**Seung-joon Lee** is a historian and associate professor in the Department of History at National University of Singapore. He is the author of *Gourmets in the Land of Famine: The Culture and Politics of Rice in Modern Canton* (Stanford University Press, 2011) and a number of research articles including, "Canteens and the Politics of Working-Class Diets in Industrial China," *Modern Asian Studies* 54:1 (2020): 1-29. He is currently working on a book manuscript, "Revolutions at the Canteens," exploring labor and management, the politics of the working-class diet, and food entitlement in twentieth-century China.

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<sup>1</sup> I also provide a review of the book in this symposium.

**Elidor Mëhilli** is Associate Professor of History and Public Policy at Hunter College of the City University of New York. He received a Ph.D. from Princeton University and has been a visiting scholar at Columbia University, New York University, and at Birkbeck, University of London. His book *From Stalin to Mao: Albania and the Socialist World* (Cornell University Press, 2017) received the Marshall D. Shulman Book Prize, the Davis Center Book Prize, and the Stavro Skendi Book Prize.

**Alexandra Oberländer** is a researcher at the Center for the History of Emotions at the Max Planck Institute for Human Development. Her research area is the history of Russia and the Soviet Union. She published her first book about perceptions of sexual violence in late Imperial Russia (*Unerhörte Subjekte: Die Wahrnehmung sexueller Gewalt in Russland 1880-1910* (Frankfurt/Main 2013)). Her current book project is a cultural and emotional history of work in Soviet late socialism. Articles resulting from this project on Soviet work have been published in *Kritika: Explorations in Russian and Eurasian History* in 2017, *Cahiers du monde russe* in 2020 and *The Soviet and Post-Soviet Review* in 2021.

## REVIEW BY KRISTY IRONSIDE, MCGILL UNIVERSITY

In a speech to Soviet enterprise managers in 1931, Soviet leader Joseph Stalin famously argued: “We are fifty or a hundred years behind the advanced countries. We must make good this distance in ten years. Either we do it, or we shall go under.”<sup>2</sup> One of the, at first glance, rather surprising solutions Soviet leaders took to this problem was to send representatives to visit the Ford factory near Detroit, Michigan. In Stefan Link’s meticulously researched and compelling book, he demonstrates how the technology and larger ideology of Fordism was harnessed not only by the Soviet Union but also by Nazi Germany to their respective projects of catch-up development in the interwar period. These two rising regimes or “insurgents” (9), as Link refers to them, borrowing Adam Tooze’s term, shared a common anxiety about their industrial deficits and their place in an increasingly American-dominated global economy.<sup>3</sup>

The Soviet Union’s “love-hate” relationship with American economic prowess has been noted by more than one scholar of late. As Rósa Magnúsdóttir observes, one of the few permissible things America could be praised for in Stalin’s Russia in the interwar period was its industrial know-how.<sup>4</sup> Oscar Sanchez-Sibony has argued that Stalinist interwar economic policies need to be placed in the context of the Great Depression, which left the Soviet Union another victim of low commodity prices, diminished hard-currency reserves, and balance-of-payment problems driven, in large part, by America taking over as the center of world finance capital in the wake of World War One.<sup>5</sup> Link picks up on this line of argumentation, zeroing in on one solution the Soviet Union and its fellow insurgent Nazi Germany took: emulating their rival and building “an American style economic juggernaut” like the Ford factory along the River Rouge on their own soil (11).

They found willing partners in Henry Ford and the Ford company leadership. In chapter one, Link offers a fascinating interpretation of why Ford was amenable to sharing the secrets to his success: it was not so much sympathy to Nazism or Stalinism as ideologies, but the Midwestern populist tradition that was built into his understanding of mass production and his “producerist” vision that made Ford open to the possibility of generous technology transfer. Ford adopted a radically open-source stance on patents, charging no royalties to use them (an extremely attractive prospect to hard-currency-strapped regimes like Nazi Germany and perhaps even more so to the Soviet Union, which was also virtually shut out of the twentieth-century global financial system because of the non-convertibility of the ruble). This was in keeping with Ford’s “producerist idea that technological progress should contribute to the common repertoire of human ingenuity” (38). The company also developed an open-door policy, allowing delegations to witness mass production at River Rouge firsthand, and to return whenever they wanted to update their knowledge of the latest technology and processes. Indeed, *Forging Global Fordism* does an excellent job of capturing delegates’ impressions of Fordism in action, beginning with the mechanical spectacle of flow production at the Rouge. Political economy histories often get bogged down in numbers, policy, and technical detail—and these are not absent here—yet Link never loses sight of the people in his story, indirectly bolstering his point that Fordism was a social, as much as a productive, model.

Indeed, beyond their pragmatic concerns over limited foreign exchange, and their aesthetic appreciation for Ford’s technological prowess, Ford’s ideas appealed to the populist sensibilities of Nazi Germany and the Soviet Union on a deep level. Ford’s rejection of finance capitalism, promotion of learning on the job, creation of skilled elites, and understanding of

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<sup>2</sup> Josef V. Stalin, “The Tasks of Business Executives; Speech Delivered at the First All-Union Conference of Leading Personnel of Socialist Industry 1, February 4, 1931,” <https://www.marxists.org/reference/archive/stalin/works/1931/02/04.htm>.

<sup>3</sup> Adam Tooze, *The Deluge: The Great War and the Remaking of Global Order, 1916-1931* (London: Allen Lane, 2014), 7.

<sup>4</sup> Rósa Magnúsdóttir, *Enemy Number One: The United States of America in Soviet Ideology and Propaganda, 1945-1959* (Oxford: Oxford University Press, 2018), 6.

<sup>5</sup> Oscar Sanchez-Sibony, *Red Globalization: The Political Economy of the Soviet Cold War from Stalin to Khrushchev* (New York: Cambridge University Press, 2014), 44-45.

mass production as a larger social project that was conducive to workers' material comfort and prosperity resonated with German criticisms of private capital and ideas about "service" (*diens*t) to a common purpose and the people (*Volk*) (65). It also spoke to the Soviet goal of rapidly overcoming the former Tsarist Empire's "backwardness" and creating a "New Soviet Man" who had a stake in the country's and his own transformation (78). This helps explain why Ford's ideas and his treatise, *My Life and Work*, enjoyed such enormous success in both countries, and also why they appealed to opposite ends of the political spectrum, which is the subject of chapter two.<sup>6</sup> To the right, Ford gave the tools to understand and surmount America's ascendancy, and to the left, Ford prompted intellectuals like Antonio Gramsci to consider what distinguished socialist mass production from capitalist variants (88).

In chapters three and four, Link outlines what Fordist technology transfer looked like in practice, from visiting the plant, obtaining blueprints, recruiting skilled workers (especially those who already spoke Russian and German), and setting up factories to deploying flow production in the service of Soviet and Nazi German automotive and rearmament plans. The Soviets first sent a delegation to River Rouge in 1929 to figure out how to move Ford's technology from Detroit to Nizhni Novgorod, where the first major Soviet automotive plant was located. Stepan Dybets, a Russian immigrant to the United States who had been deported during the post-World War One Red scare, initially led these efforts and was soon joined by other boosters of Fordism in the central state economic apparatuses. Their accomplishments could hardly be considered a categorical success, as Link acknowledges: the *Gor'kovskii Avtomobil'nyi Zavod* (GAZ), often known simply as the "Auto Giant" plant, made inefficient use of materials, tended to produce low-quality work, and Fordist labor practices were quickly watered down or tossed aside in favor of decidedly un-Fordist, but more effective in the short-term, forms of coercion like norm-busting and Stakhanovism. People like Dybets ultimately paid with their life for the plant's shortcomings during the Great Terror, which claimed "bourgeois specialists" and, more broadly, anyone with foreign links in disproportionate number as its victims.<sup>7</sup>

These failures nevertheless highlight one of the book's larger arguments beyond the case study of Fordism in the Soviet Union and Nazi Germany: as Link puts it, "all late developers must turn, for capital and technology, to those they seek to emulate." (92) As he points out, the Soviets aggressively pursued technical cooperation agreements with American firms in addition to their overtures to Ford in an effort to emulate American industrial might. Yet, the larger story of American-Soviet economic relations is dealt with rather fleetingly here, one of the few minor weaknesses of the book, from my vantage point as a Soviet historian: most other American firms were categorically uninterested in doing business with the Soviets, and, beginning in the early 1930s, anti-Communist politicians ramped up their efforts to expose Soviet industrial espionage. Against the backdrop of the Great Depression, the Soviet Union was repeatedly accused of dumping products (in particular, timber and manganese) on world markets and driving down prices in an attempt at sabotage, causing economic hardships that exacerbated labor unrest and drove more workers toward leftwing politics and the Soviet cause.<sup>8</sup> American anti-Communist forces believed that the Soviet Union wanted access to American technology merely to support the nefarious goal of world revolution; they inadequately grasped that Soviet leaders saw the very survival of the system they were creating as depending upon mastering the capitalists' tools of production—as the quotation with which I began this essay with

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<sup>6</sup> Henry Ford with Samuel Crowther, *My Life and Work* (New York: Garden City, 1922).

<sup>7</sup> On the terror's impact on Soviet technical specialists, see: Loren Graham, *The Ghost of the Executed Engineer: Technology and the Fall of the Soviet Union* (Cambridge: Harvard University Press, 1993), 44-45. On the terror's targeting of people and cultural institutions with foreign links, more broadly, see: Michael David-Fox, *Showcasing the Great Experiment: Cultural Diplomacy and Western Visitors to the Soviet Union, 1921-1941* (Oxford: Oxford University Press, 2001), 300-304, and Brigid O'Keeffe, *Esperanto and Languages of Internationalism in Revolutionary Russia* (London: Bloomsbury, 2021), 176-179.

<sup>8</sup> These allegations came up repeatedly during the Congressional hearings called by the outspoken anti-Communist politician Hamilton Fish, III. See: *Hearings Before a Special Committee to Investigate Communist Activities in the United States of the House of Representatives; Seventy-First Congress; Second Session Pursuant to H. Res. 220 Providing for an Investigation of Communist Propaganda in the United States; Part 1-Volume No. 1, June 9 and 13, 1930* (Washington, D.C.: U.S. Congress, 1930).

illustrates. Link's book is admittedly a focused study of Fordism and obviously cannot be expected to go into great detail about Soviet-American economic relations, but a clearer sense of the fraught politics around capitalist-to-communist technology transfer would have been welcome.

Though Nazi Germany similarly saw itself in a subordinate position to American industry, it was nowhere near as behind as the Soviet Union. Moreover, it remained committed to a nominally capitalist market-based economy. This had important consequences for its engagement with Fordism, as Link shows. Like the Soviets, German leaders sent delegates with personal connections to the United States to Detroit, such as William Werner, where they marveled at what they saw; unlike the Soviets, the Germans did not spurn the idea of Ford—and General Motors (GM) through its subsidiary Opel, for that matter—building automotive plants on their territory. Instead, they found ways to appropriate that technology without spending U.S. dollars by increasingly ensnaring American multinational firms in the Nazi “steered market economy” (133-135). They trapped multinationals' profits inside Nazi Germany through strict capital controls, which caused the companies to spend their money there and to become compliant with state directives that would eventually directly implicate them in Germany's rearmament campaign.

Finally, chapter five deals with the fate of flow production in both the Soviet Union and Nazi Germany during the Second World War, when both deployed it in the service of total warfare. In the case of Nazi Germany, Fordism became a means to exploit the unskilled labor of foreigners in the armaments industry, including contract laborers, POWs, and concentration camp inmates. It was not, as Link emphasizes, a “panacea to the mobilization of unskilled labor, forcibly recruited or not” (191). Interestingly, the war inverted the experiences of the Nazis and Soviets: the Nazis were now the ones trying to make an exhausted and brutalized population work more efficiently using flow production, much like the Soviets had attempted to do during rapid industrialization. The Soviet home front workforce was also exhausted and brutalized, to be fair, but was more invested in a Soviet victory than the Nazi armament industry's foreign workers were. More importantly, Soviet leaders were able to better able to do implement flow production, Link argues, because they scaled back on some of the earlier labor practices that had undermined the successful implementation of flow production at enterprises like GAZ, such as individual acts of Stakhanovism that disrupted flow and promoted an emphasis on quantity over quality.

Link's book offers two broader arguments in the conclusion: first, Fordism “has operated, and continues to operate, in divergent political and economic arrangements bolstered by different ideological framings;” in other words, despite popular assumptions, this American-style mass production model did not require American-style capitalism to work. Second, and more intriguingly, “development is always relational: it cannot be understood in national terms and without attention to the fundamental power disparities that structure the global economy... late developers have no choice but to turn, for technology and capital, to those they seek to emulate and challenge” (216). Link's argument thus assumes a interesting point somewhere between the more traditional argument that the Soviet Union deliberately pursued autarky in the interwar period as a function of its political ideology (i.e. “socialism in one country”) and economic reality and Oscar Sanchez-Sibony's retort that the autarky model is simply “wrong.”<sup>9</sup> In Link's portrayal, autarky—and protectionism more broadly—

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<sup>9</sup> Sanchez-Sibony has criticized how the concept of autarky allowed “totalitarian” scholars “to construct a narrative of the country as an antagonistically illiberal and willful socio-political construction that could only be erected as a purely ideological undertaking: ‘the Soviet experiment’,” while simultaneously allowing the Left to envision “the Soviet Union as an experiment embod[y]ing the hope that processes were in motion there unsullied by the commercialized, exploitative capitalism of societies in the West.” This view, he puts it bluntly, was “wrong... The fact is that the Soviet economy was in large measure embedded in global economic structures at all times in its history.” See: Sanchez-Sibony, 4-6. By contrast, Paul R. Gregory and Joel Sailors, for example, argue the Soviet Union was an “outlier... bent no less on autarky” during the Great Depression. This had the advantage of making its economy look like it had “freed itself from the ‘anarchy of the market’ ... and grown and transformed itself during a period of time when the other countries were in crisis,” which made it appealing to other developing countries after the Second World War, but “the benefits gained from avoidance of the Great Depression were of relatively short duration when compared with the long-run disadvantages of the economic system.” See: Paul R. Gregory and Joel Sailors, “The Soviet Union during the Great Depression: The Autarky Model,” Theo Balderson, ed., *The World Economy and National Economies in the Interwar Slump* (London: Routledge, 2003), 191, 207-209.

emerges as a practical, if undesirable, solution to finding oneself in a position of comparative economic weakness vis-à-vis an economic hegemon, but this does not allow the former to opt out of engaging with the latter.

This is far from the first instance in which the Soviet Union under Joseph Stalin and Nazi Germany under Adolf Hitler have been compared.<sup>10</sup> This book looks at an understudied level of the Soviet and Nazi systems: technical elites, who are—at least in studies of Soviet political economy, and evidently in Nazi German political economy, too—often overlooked in favor of an emphasis on grand plans and leaders’ proclamations. These were the people who were trying to figure out how to harmonize demands from both the top and the bottom and they were of special importance within the hierarchy of the Fordist labor model. “Cadres decide everything,” Stalin famously said, and Link certainly listens to what they have to say.<sup>11</sup> In sum, this book is an excellent model of comparative and transnational history, and its implications for the study of twentieth-century economic development and competition are far-reaching.

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<sup>10</sup> Some classic examples include Michael Geyer and Sheila Fitzpatrick, eds., *Beyond Totalitarianism: Stalinism and Nazism Compared* (New York: Cambridge University Press, 2009) and Richard Overy, *The Dictators: Hitler’s Germany and Stalin’s Russia* (London: Allen Lane, 2004).

<sup>11</sup> Stalin, “Address delivered in the Kremlin Palace to the Graduates of the Red Army Academies,” May 4, 1935, <http://soviethistory.msu.edu/1936-2/year-of-the-stakhanovite/year-of-the-stakhanovite-texts/cadres-decide-everything/>.

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 REVIEW BY ROMAN KÖSTER, BAYERISCHE AKADEMIE DER WISSENSCHAFTEN
 

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A considerable amount of books and articles have already been written about “Fordism.”<sup>12</sup> Very often, however, the term’s meaning was reduced to an equivalent for large scale mass production of industrial goods, disregarding the “philosophy” and politics behind the assembly line. The intellectual history of Fordism, on the other hand, in most cases did not link Henry Ford’s political messaging to the concrete adaption of Fordist production methods.<sup>13</sup> One of the merits of Stefan Link’s book is that it develops a more specific and historically accentuated meaning of Fordism as combination of a production method and a specific industrial philosophy. He argues that the assembly line came along with a political message which made Fordism highly attractive especially to authoritarian regimes.

Link begins his book with the often-told story how the assembly line was developed and installed at Ford’s plants. However, the author also pays attention to the reasons for Ford’s high reputation all over the world during the 1920s and 1930s, which were not merely founded in his success as a business man and his rise ‘from rags to riches.’ At the same time, he acted as a virtuosic self-propagandist. His 1923 book, *My Life and Work*, made clear that his success was not merely due to technological innovation, but also by his forging of the shop floor to a social community.<sup>14</sup> At the same time, he distanced himself from Taylorism through his outspoken disregard for statistics and corporate finance. This is what Link convincingly calls “Midwest populism” (19-26): a production philosophy directed against banks, East Coast corporations, political networks, and organized labor. All this came along with a strong anti-Semitic flavor.

As Link argues, this industrial ‘philosophy’ was highly attractive to many countries after the First World War as a way to enhance industrial efficiency and avoid the dire technocracy of Taylorism. At a time when many European countries in particular found their position in the global economy severely challenged, Fordism was perceived as offering the possibility of regaining the economic power of the pre-1914 period. Simultaneously, it offered a solution to the grave industrial conflicts of the 1920s. Reports that the reality of Ford’s plants very often did not match his propaganda (especially regarding the high turnover rate of the workforce) could not disturb the excitement.<sup>15</sup> Ford’s messaging also appealed to many socialists and trade union officials, not at least because rationalization should come along with high wages.<sup>16</sup>

This appeal of Fordism is well known, but Link brings a new accent into the debate when he argues that the adaption of Fordist production methods had its heyday not so much in the 1920s, but more in the 1930s when the global economic order was shaken by the impact of the Great Depression and when countries had to muster up for a disintegrated world economy that had been disrupted into trade and currency blocks. With the choice of Nazi Germany and the Soviet Union as his objects of investigation, the author underlines that Fordism had an especially strong appeal to authoritarian regimes, and that Ford’s antisemitism fostered this (48-50).

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<sup>12</sup> See, for example, Douglas Brinkley, *Wheels for the world. Henry Ford, his Company, and a Century of Progress, 1903-2003* (New York: Viking, 2003); David Nye, *America’s Assembly Line* (Cambridge: MIT Press, 2013); Reiner Flik, *Von Ford lernen? Automobilbau und Motorisierung in Deutschland bis 1933* (Cologne: Böhlau, 2001).

<sup>13</sup> Mary Nolan, *Visions of Modernity. American Business and the Modernization of Germany* (New York: Oxford University Press, 1994).

<sup>14</sup> Henry Ford, *My Life and Work* (New York: Doubleday Page & Co, 1923).

<sup>15</sup> Wilhelm Vershofen, *Grenzen der Rationalisierung. Gesammelte Aufsätze und Vorträge* (Nuremberg: Kriische, 1927).

<sup>16</sup> See Fritz Tarnow, *Warum arm sein?* (Berlin: Deutscher Gewerkschaftsbund, 1928).



To prove this, Link describes the global reception of Fordism during the interwar period and offers two main case studies: the Russian *Avtostroy*-company and the German Auto-Union (the precursor of *Audi*). Both automobile-plants adopted Fordist production methods during the 1930s and relied heavily on the help of American experts and industrialists who had first-hand knowledge of American production methods. Especially the German-American Auto-Union manager William Werner personifies for Link the connection between American industry and German rearmament. These case studies are well researched and innovative insofar as they not merely cover the adaptation of Ford's methods in automobile production, but also trace the influence and interventions of Fordist agents (177-184).

While the case studies are very convincing, the historical contextualization appears as occasionally inattentive. When Link covers Germany, for instance, he does not mention union official Fritz Tarnow, who was the most important advocate of Fordism from the side of trade unions during the 1920s. Economist Friedrich von Gottl-Ottlilienfeld, who in 1926 coined the German term "Fordismus," is misleadingly portrayed as the doyen of the historical school of economics, while he was neither a historical economist nor a leading figure in German economics.<sup>17</sup> The book would have further profited from including Karsten Uhl's study "Humane Rationalisierung" from 2014, dealing with the shop-floor adaption of Fordist production methods during the 1920s and 1930s in Germany.<sup>18</sup> Uhl's most important case study is the Cologne *Deutz*-company and its production manager Helmut Stein, who was among the most prominent and outspoken advocates of Fordism since the mid-1920s. Unfortunately, this important work is not mentioned in the book.

Aside from this particular criticism, the argument that we should focus more on the 1930s than the 1920s to describe the impact of Fordism provokes many interesting questions. The most important one is whether there were national differences in adapting the new agenda of industrial rationalization after World War I, and whether a special appeal of Fordism to authoritarian regimes actually existed. This is relevant because Germany and the Soviet Union were not the only countries with problems to which Fordism appeared to be the answer: many, not merely in Europe but also in Asia or Latin America, were confronted during the 1930s with a lagging industrial efficiency, high trade barriers, and massive industrial conflicts.<sup>19</sup> From this perspective, Fordism could have been equally attractive to Britain, France, or a country on the path to replace its import-export-system with import substitution like Argentina.

It was certainly the case that the Fordist image of the plant as a social community could be easily adapted by authoritarian regimes – especially because it was their outspoken goal to eradicate class conflicts on the shop floor (however, Nazis leaders, just like the Soviet Communists, deliberately ignored this aspect of paying their workers high wages). The Fordist industrial philosophy would, however, have been easily adaptable in democratic societies as well, and in France such attempts actually were made. It would be very interesting to look at the reasons which hindered the adaption of Fordist production methods. The broad literature on Britain's industrial decline, for example, has highlighted the importance of production organization based on skilled craftsmanship, which often blocked a stronger seizure of the economies of scale.<sup>20</sup> Not every industry proved suitable for the adaption of mass production methods, and the degree to which the automobile industry can be interpreted as a *pars pro toto* for industrial production as a whole is still a matter of debate.

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<sup>17</sup> Roman Köster, *Die Wissenschaft der Außenseiter. Die Krise der Nationalökonomie in der Weimarer Republik* (Göttingen: Vandenhoeck & Ruprecht, 2011), 192-201.

<sup>18</sup> Karsten Uhl, *Humane Rationalisierung?: Die Raumordnung der Fabrik im fordistischen Jahrhundert* (Bielefeld: Transcript, 2014).

<sup>19</sup> Douglas Irwin, *Trade Policy Disaster. Lessons from the 1930s* (Cambridge: MIT Press, 2012).

<sup>20</sup> Edward H Lorenz, *Economic Decline in Britain. The Shipbuilding Industry, 1890-1970* (Oxford: Clarendon Press, 1991); Jean-Pierre Dormois, Michael Dintenfuss (ed.), *The British Industrial Decline* (London: Routledge, 2003).

But this problem has another decisive dimension: In the conclusion of his book, Link quotes writer Peter Drucker's eulogy of Henry Ford in which he remarked that the industrial community Ford had imagined was not merely a task of engineering but also one of "meaning" (208). Drucker's writings since the late 1930s – especially his successful book *The End of the Economic Man* (1939) – demonstrate that the breakdown of the old global economic order brought about by the First World War and the Great Depression not only resulted in the need to create a new one.<sup>21</sup> It was at the same time necessary to find a new modus of social integration when the market alone was no longer able to achieve this. It was this double task to which Fordism provided an answer. But, as mentioned, for Drucker, "giving meaning" to social and industrial life was no engineering task. It was exactly here where the state was in demand, not merely to protect the economy from the impact of economic crises, but to moderate social conflicts and to define social goals.

From this perspective, Link's thesis of the authoritarian appeal of Fordism implies that dictatorships like Germany and Russia had a decisive advantage in the 1930s. They could claim to overcome the market logic by political means, and that their strong ideology was – with disastrous consequences – in fact "giving meaning." This was a perfect breeding ground for the adaptation of Fordism, and the democracies had to counter with their own integration ideologies and protective tools before they were able to reconcile Fordist rationalization with their democratic agendas. This is one of the book's strong points. *Forging Global Fordism* thus makes an important contribution to the literature because it draws our attention to the social embeddedness of industrial life. It thereby raises important questions which have the potential to deepen our understanding of the interwar period.

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<sup>21</sup> Peter F. Drucker, *The End of Economic Man. The Origins of Totalitarianism* (New York: John Day, 1939).

REVIEW BY SEUNG-JOON LEE, NATIONAL UNIVERSITY OF SINGAPORE

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The twentieth-century world was a divided one: West and East, global south and north, liberal and anti-liberal regimes, and the so-called free world existing alongside those suffering under dictatorships. In contrast to such extreme enmity, however, this dismembered world was perhaps amalgamated with a new politico-economic vision, in the form of industrial productivism—a vision that innovation in science and technology and its practical application to industry would give rise to the overall betterment of the economic foundation of society. In order to increase the industrial productivity of their own economies, many regimes of all ideological stripes spared no effort to emulate an industrialization model that would be most suitable to their countries. Stefan J. Link's outstanding book, *Forging Global Fordism*, provocatively argues that the industrial regime widely believed to be the best in the world, and which blended the fragmented world into unison, was Fordism.

The practicality and applicability in Fordism disarmed easy ideological differences and political distrust. And the period in which the world embraced Fordism was not the roaring twenties, which was relatively an amicable decade after the First World War, but rather the 1930s and 40s, during which time the world suffered from the Great Depression, the revival of protectionism and autarchy, the rise of Nazism and Stalinism, and the Second World War. Therefore, the interwar period was not a "retreat from globalization as it is commonly held" (3), but rather a monumental era during which consequential attempts were made to shake the very structure of the world to its core.

Link redefines the "global thirties" as a decade that emerged as a "laboratory of experimentation in a shared transnational crisis" (16). It was not about peace and free trade; rather, it was depression and war that galvanized and intensified the global spread of Fordism. From Soviet leader Joseph Stalin and the revolutionaries in the Politburo in Moscow, to German leader Adolf Hitler and Nazi industrialists, to Antonio Gramsci, the leading intellectual of the Italian Communist Party who was incarcerated in a prison cell under life-sentence in Fascist Italy—those who wanted to use Fordism to their own ends were surprisingly not favorable to American norms by any means. However, they were the main actors in *Forging Global Fordism* who made Fordism global and the thirties a global decade.

Why did so many anti-liberals—from the left and right alike—gravitate towards Fordism? Link locates the origins of global Fordism in its very local character in the American Midwest. At the very heart of the global history of Fordism was a local history. What occurred in the Great Lakes basin at the turn of the twentieth century was an "agro-industrial revolution"—a symbiosis of industry and agriculture in which the "machine shops and foundries of middling cities connected with commercially oriented farms" (27). This unique coexistence not only offered a shield from the East-coast financial elite's dominance over the rising automobile industry, but also salvaged the region from agrarian stagnation.

But this does not mean that the romanticized narrative of a continuum between the urban and rural worlds in the American Midwest gave birth to Fordism without any difficulty. Rather, Fordism was a contingent outcome of political contentions and class conflicts between skilled mechanics and unskilled migrant workers, as well as between middling proprietors and privileged investors, a new managerial class, and established financial elites. Perhaps for that very reason, the mode of mass production that Henry Ford advocated for could not be separated from contentious mass politics at the grassroots level. While Ford found the potential of mass production in the American Midwest, the global left and right alike found the applicability of their own acumen—the political techniques of mass mobilization from the grassroots and up—to Fordism.

What made Fordism succeed in turning the energy of contentious mass politics into that of mass production? What it envisioned was nothing short of a new vision of a collective endeavor. Fordism never squarely pursued capital accumulation, nor did it appeal for egalitarian populism. Instead, Fordism unleashed the liberating forces of technology while continuing to hold up its unique principles. Surplus had to be reinvested, and prices had to be lowered while wages had to be kept high; however, labor was expected to make contributions in return for its rewards. Therefore, Link argues that Fordism addressed not the conventional liberals who sought for the restoration of the liberal order, which had diminished in the late 1920s and early 1930s, but rather their opponents: anti-liberal insurgents who had gathered significant momentum following the Great Depression.

For that very reason, Fordism was profoundly embedded at the grassroots level from its inception. One of the outstanding features of the book is its analysis of global readership, as the grassroots provided not only a sustainable labor force to the Ford factories, but also cultural consumers who absorbed the popular visions of industrial modernity that the Ford factories symbolized. No one doubts that the technology transfer orchestrated by technocrats and industrialists was the centerpiece of the global spread of Fordism, and detailed blueprints on floor management and mechanization flow attracted aspirant technocrats and industrialists across national borders. But they might ultimately number just a small handful. By contrast, countless readers could be found among the grassroots, which Link painstakingly explores.

These readers who spoke and read different languages were the primary historical actors who made Fordism truly global. For example, when the German edition of Henry Ford's *My Life and Industry* was published in Germany, the number of copies sold amounted to 200,000.<sup>22</sup> Yet this is only the tip of the iceberg. In 1924 alone, the translation and sales spread to at least a dozen languages across the Eurasian continent (52). Global readers not only read Ford's works voraciously, but also leisurely consumed all popular accounts of Ford himself, as well as information about his factories, including gossipy accounts and short anecdotes in popular newspapers, magazines, and pictorials in many different languages. The interwar years also saw the blossoming of what Walter Benjamin calls the "mechanical reproduction" of popular culture.<sup>23</sup> Ford factories were the symbolic sites of industrial modernity for their performance of precision and punctuality, as well as their gigantic scale. Perhaps Ford's popular nickname of "Automobile King" was the very catchword that made Fordism increasingly global (52).

The book's real strength is in how it weaves in and out of local stories while continuing to pay attention to the global significance of Fordism. Yet the author's ambitions could ultimately have been even more global, because the main actors in his exploration were primarily, if not exclusively, in the transatlantic world, and mostly resided in the Global North. For example, the Chinese were one of the most enthusiastic admirers of Fordism, across all of their own political spectrums. Given its anti-Western and anti-liberal, albeit not radical orientation, the *Guomindang* (KMT) and its technocrats desperately sought a new industrial vision during the interwar years. One of the most influential names that electrified the Chinese reading public in popular magazines was not Chiang Kai-shek, Sun Yat-sen, nor Mao Zedong; rather, it was Ford, 'the automobile King' (*Qiche dawang Fu Te xiansheng*).<sup>24</sup> Rather than following the Communists' insistence on class contrast between the haves and have-nots, Sun Yat-sen, the founding figure of the Party, laid the ideological foundation for the Republic of China, the centerpiece of which was intended to spearhead the economic reconstruction of the country with the practical application of science and technology.<sup>25</sup>

At the same time, this industrial model should necessarily exclude the dominance of the financial elites in the Western world. In this regard, I argue, Global Fordism was suited more to their political stance than any other industrialization model from the interwar years. Even members of the leftist wing of the *Guomindang* could find elements of Fordism in their fascination with the Soviet industrialization model, which insisted on the industrial scale and mass production. The book insightfully argues that the profound influence of Global Fordism can be found in various postwar developmental state models in East Asia, although one may argue that the embryonic beginnings of East Asian developmental states occurred

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<sup>22</sup> Henry Ford and Samuel Crowther, *My Life and Work* (Mansfield Center: Martino Publishing, 2010).

<sup>23</sup> Walter Benjamin, *Harry Zohn, and Hannah Arendt: Illuminations: Essays and Reflections* (New York: Houghton Mifflin, 1955).

<sup>24</sup> Zheng Xingang, "1911-1937 nianjiande 'Shenbao' qiche guanggao yanjiu [A Study on automobile advertising in Shenbao, 1911-1937]," *Xinwen zhishi* 7 (2013): 54-56.

<sup>25</sup> William C. Kirby, "Engineering China: Birth of the Developmental State, 1928-1937," in Wen-Hsin Yeh, ed., *Becoming Chinese: Passages to Modernity and Beyond* (Berkeley: University of California Press, 2000).

decades earlier than the end of Second World War.<sup>26</sup> It was precisely during the interwar period that Fordism became global, as the book brilliantly argues.

These are minor critiques. Taken as a whole, *Forging Global Fordism* is a work of the tallest order. The book's lively arguments and neatly crafted narrative alike should appeal to scholars in many sub-fields, including economic history, business history, labor history, and the history of science and technology, just to name a few. Yet their particular scholarly interests would also be combined with a common theme—global history—just as the twentieth-century world was united by Global Fordism.

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<sup>26</sup> William C. Kirby "Continuity and Change in Modern China: Chinese Economic Planning on the Mainland and on Taiwan, 1943-1958," *Australian Journal of Chinese Affairs* 24 (July 1990): 121-141.

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REVIEW BY NELSON LICHTENSTEIN, UNIVERSITY OF CALIFORNIA, SANTA BARBARA

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*The Power of Fordist Ideology*

Stefan Link's history of global Fordism during the interwar era makes clear that the idea of mass production, with its epicenter in Detroit, was as much a political and ideological phenomenon as it was a reconfiguration of machine technology and a redeployment of labor to advance assembly-line production methods. Detroit became the "capital of the twentieth century" because people around the world – both revolutionaries and reactionaries – saw Fordist mass production as a weapon they could wield to vanquish the stolid grip of Edwardian-era financial capitalism and the class hierarchies that came with it (1-3). In both Germany and the Soviet Union, the factories of Henry Ford seemed to hold the key to a transformative new political economy that could emancipate Germany from its post-World War I indebtedness and in the Soviet Union create the material conditions for socialism itself.

Stefan Link is steeped in the shop-floor industrial histories of Soviet Russia and Nazi Germany; his reconstruction of how both regimes sought to transfer technology from Dearborn to the huge new industrial enterprises they envisioned is without parallel. But the most striking feature of Link's book may well be his rediscovery of how and why a world-wide enthusiasm for the Ford persona and the Ford factories swept the globe during the early 1920s. The appeal was both ideological and technocratic and so profound that it may well help us reconceptualize an entire era in global history that puts a quest for Fordist developmentalism at the very center of international history, both in peace and war. This is a far more sophisticated approach than that of some other recent historians who see international Fordism as just another element of twentieth-century American imperialism.<sup>27</sup>

The Fordism of Henry Ford and his self-taught collaborators emerged out of Midwestern American populism. Link argues that Fordism and its international reception arose not as a product of U.S. hegemony and empire but in revolt against Gilded Age hierarchies. Mass production emerged from the political commitments and social horizons of Detroit's skilled mechanics, of which Henry Ford was a representative example. While his hostility to Eastern finance is well known, his commitment to a producer ethos requires some deconstruction. Link makes the point that despite his inauguration of the \$5 day, Ford was no advocate of Keynesian consumptionism. His world view was closer to that of those Populists and civic virtue republicans who celebrated a producer ethos as a counterweight to Gilded Age rent seeking and financial manipulation. Even in the 1930s the fact that the Ford Motor Company had but three shareholders, all of whom were family, while General Motors paid dividends to 375,000, seemed to many observers, at home and abroad, a moral credit on behalf of the Dearborn firm.

Nor did proponents of Fordism see the development of flow technology as simply a new and more coercive form of Taylorism. That doctrine emerged from a very different social milieu than that inhabited by Henry Ford. Frederick Taylor was an upper-class tourist in working-class America, seeking to discover the psychological mechanism that might enhance individual productivity among an untutored class of immigrant workers. In contrast, Link shows that Ford saw production as more of a collective enterprise, a coordination of men and machines that did not seek to "train" the unskilled, but took their labor power as he found it. While the assembly line would soon become a Chaplinesque metaphor for dehumanized production, Ford's wildly successful autobiography, *My Life and Work* emphasized the degree to which flow production required a new generation of machines and the skilled labor necessary to build and deploy them. All this magnified and multiplied the labor of the unskilled in a fashion that was antithetical to Frederick Taylor's original conceptualization.

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<sup>27</sup> Greg Grandin, *Fordlandia: the Rise and Fall of Henry Ford's Jungle City* (New York: Metropolitan Books, 2010); Elizabeth Esch, *The Color Line and the Assembly Line: Managing Race in the Ford Empire* (Berkeley: University of California Press, 2018)

(However, after his death in 1915, the Taylor Society moved to the left and came to see enhanced productivity as an organizational issue in Fordist terms, well beyond the training or monetary incentivization of the workforce.)<sup>28</sup>

Fordism appealed to both the left and the right, to the Soviets as well as the National Socialists. To both, mass production was a developmental technology cum ideology, capable of utilizing the talents of a vast untutored workforce, even if that mobilization would require an increasing measure of coercion. As Link recounts, Ford's *My Life and Work*, which was ghosted by the brilliant publicist, Samuel Crowther, sold more than 200,000 copies when it appeared in Germany early in the 1920s. There it was almost certainly read by Nazi leader Adolph Hitler during his imprisonment in Landsberg after the abortive beer hall putsch. Henry Ford's special place in the Nazi imagination is obvious: he was a production genius, an opponent of finance capital, an anti-Semite, and the herald of a motorized Volk. Hitler saw America's vast continental market integral to the success of mass production across the Atlantic. To avoid American dominance of Europe and to provide an equally expansive market, the Germans required *lebensraum* as well.

The German sociologist Friedrich von Gottl-Ottlilienfeld called Fordism "white socialism," a reflection of the degree to which, in the 1920s, the right challenged the Marxist monopoly on the use of the word socialism (66-68). National Socialists saw their version of anti-capitalism as more communal and organic, more authoritarian than egalitarian, but above all as a movement that combined the new technologies with a national renaissance.

The left also saw much to celebrate in Fordist culture and technique, although in the Soviet Union and elsewhere Marxists debated the degree to which Fordism's emancipatory potential could be wrested from its American capitalist entanglements. This was the Italian Marxist Antonio Gramsci's project while writing his prison notebooks in the late 1920s and early 1930s. The Russian revolutionary leader Leon Trotsky wanted to separate Fordism from Ford so as to "socialize and purge it;" likewise a Soviet biography asserted that "Ford's name will be remembered many years after capitalism has disappeared from the face of the earth" (75, 87).

If Fordism as an ideology rapidly engulfed the globe and was then adapted to disparate political and cultural traditions, the actual transfer of Midwestern technology and factory organization was a more difficult project. Both the Soviets and the Germans were determined to acquire that technology and know-how, however, and at Dearborn they found a host eager to help them out. It says a lot about the self-confidence of Ford and his subordinates that they laid out the welcome mat to delegation after delegation of engineers and officials from the Soviet Union, Germany, Italy, Japan and elsewhere. "Without doubt the Ford works in Detroit are among the most brilliant technical achievements in the history of the world," reported the German automobile executive, William Werner, whose engineering career Link traces in illuminating detail (22). Both the Soviets and the Germans were particularly impressed with the degree to which flow production at Ford's River Rouge factory complex was based on the deployment of an enormous investment in specialized tools, jigs, and other machinery, all of which was essential to the efficient employment of a workforce that was 'unskilled' from the point of view of the engineers, foremen, superintendents, or craft workers who composed the essential cadre of Fordist production at the Rouge and elsewhere.

Both the Soviets and the Germans (and the Italians too) sought to build their version of a River Rouge complex in the 1930s. With the Gorky Automobile Factory (GAZ) in central Russia taking the lead, the Soviets built an entirely new set of plants that haltingly turned out trucks, cars, and then much military equipment. In 1938 Hitler laid the cornerstone of the Volkswagen works in Wolfsburg, while Fiat welcomed Italian dictator Benito Mussolini for the opening ceremony of a new Turin facility in 1939. Of course, it was impossible to simply transpose Fordist men, methods, and machinery from

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<sup>28</sup> Chris Nyland and Kyle Bruce, "Democracy or Seduction? The Demonization of Scientific Management and the Deification of Human Relations," in Nelson Lichtenstein and Elizabeth Shermer, eds., *The Right and Labor in America: Politics, ideology, and Imagination* (Philadelphia: University of Pennsylvania Press, 2012), 42-76.

Dearborn to Europe, so the bulk of Link's book explores the failures, successes, and transmutations that attended this effort at trans-Atlantic technology transfer.

Perhaps the most important difference between the Soviets and the Germans arose out of the how each regime would pay for the technology transfer. The Soviets rejected the idea of Western "concessions" (101-102), arrangements whereby foreign firms would be invited to set up factories or other enterprises and then pay royalties or taxes to the state, while training as many locals as possible. This would have saved a lot of money and time, but Stalin feared it was also undermining the hegemonic power of the Communist Party and the state he sought to construct. Rapid industrialization would require a program entirely controlled by the Party. The Soviet government therefore set up an office in Detroit to purchase machinery, recruit skilled workers, and immerse visiting cadre in American production techniques. This was enormously costly and it was paid for by requisitioning grain from a starving peasantry, lowering urban living standards, and creating a regime of industrial terror in the factories and mines. The Soviet road to Fordism was fantastically brutal, perhaps possible only in a society that came as close to an Orwellian totalitarianism as any in the twentieth century.

Unlike the Soviets, Germans of both the Weimar and Nazi eras never sought to import an entire technological system wholesale. Both General Motors and Ford already had production facilities in the country when Hitler came to power. Instead, the Germans pursued a more selective importation of Fordist machinery and personnel while putting increasing pressure on both American and German auto producers to accommodate the interests and goals of the Nazi regime. Because of controls on the export of capital, U.S. firms were increasingly forced to reinvest profits within Germany itself. Link calls Germany a "steered market economy" in which firms retain their autonomy as long as they fulfill the national plan (144). The Nazi regime therefore ensnared the American companies in a web of political pressures and economic incentives that effectively appropriated U.S. technology without paying for it. The nearest twenty-first century analog is that of China and some other East Asian nations where politically structured "joint ventures" have insured that foreign firms will share proprietary technologies with host enterprises as a price of tapping an enormous market and a vast underpaid pool of labor.

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In both nations, the development of tacit knowledge was crucial. Link makes the important point that the copying, borrowing, or stealing of foreign technology is a creative process, fraught with trial and error, not unlike innovation itself, because technological knowledge is tacit, residing not in machinery but in the human interface with those tools of production. To create that interface both nations found it best for native-born workers to spend time in the United States and then return to their homeland factories. The Germans were able to recruit such workers from the many thousands of German-born or German-heritage workers already employed in Midwestern auto plants. As late as 1939 Ferdinand Porsche was recruiting dozens of highly skilled Germans out of the Ford organization, many destined to play leading roles in the new Volkswagen enterprise that Hitler and other Nazis thought would help transform Germany in the same fashion Ford's Model-T had revolutionized America. Advertisements in German language newspapers across the Midwest persuaded an additional 700 workers from Milwaukee, Chicago, Cleveland, and Detroit to relocate (166). The Soviets also recruited thousands of U.S. specialists, including the Reuther brothers who would later become famous as leaders of the United Automobile Workers, for year-long stays at GAZ and other factories. But most of these recruits were not native speakers and therefore far less successful at the training and adaptation process than those relatively few Russians who actually spent time in U.S. factories as part of the program whereby Fordist technique was appropriated.

So the Soviet effort to recreate a River Rouge at GAZ got off to a rocky start. At first the Soviets just copied as best they could Ford models and American production techniques. The Stakhanovite heroic worker craze of the mid 1930s actually

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<sup>29</sup> Peter Nolan, *China and the Global Economy: National Champions, Industrial Policy and the Big Business Revolution* (New York: Palgrave, 2001); Ted Fishman, *China Inc.: How the Rise of the Next Superpower Challenges America and the World* (New York: Schreiber, 2005); Carl Walter and Fraser Howie, *Red Capitalism: The Fragile Financial Foundation of China's Extraordinary Rise* (New York: John Wiley & Sons, 2011); Ho-fung Hung, *The China Boom: Why China Will Not Rule the World* (New York: Columbia University Press, 2016).



subverted Fordist principles, but by the second half of the 1930s the factory was turning out its own designs using its own equipment. Stalinist purges had liquidated the very top layer of Fordist leadership during the 1930s, but there were enough middle-ranked engineers and skilled specialists remaining to make the factory work. Before the war labor turnover was enormous, assembly line breakdowns frequent, and both quality and productivity far below U.S. standards, but the Soviets did eventually put in place a system of flow production that enabled the motherland to outproduce the Germans in virtually all essential categories of war material. At GAZ the triumphant production of thousands of light tanks and self-propelled artillery proved notably successful. Indeed, when a German bombing attack in 1943 halted output for several months, GAZ engineers rebuilt conveyors and assembly lines on even more orthodox and efficient Fordist principles.

Link argues that Fordism reached its apogee in both Germany and the Soviet Union during World War II. Both regimes faced a shortage of skilled workers, and both responded by deploying flow production to harness unskilled labor and both used highly coercive methods to mobilize an exhausted and brutalized workforce. The shop floors of Soviet and German armament factories looked remarkably similar, writes Link “except for the language of the inspirational banners on the walls” (204). The big difference was the political economies in which flow production operated. It turned out that the command economy in the Soviet Union was far more capable of enforcing the conditions under which mass production would flourish than that of the economic “rationalization” the Nazis sought to impose in Germany (172-176). There was just too much enterprise level foot dragging in the Nazi economy. Neither munitions chief Albert Speer nor William Werner were able to create the kind of coercive and centralized economic regime over which Soviet commissars presided. The Germans were far more technologically adept than the Soviets, but that merely propelled them toward a futile search for the war-winning wonder weapon. Thus, the Soviets manufactured 15 different aircraft models during the war, the Germans 65. The Americans did turn out 126 different models, but the British had an astounding 235, a number that says a lot about the even greater failure to adapt of Fordist technique and ideology in that country (204).

Had Link added Great Britain to his list of nations where industrial elites sought to compete with the Americans, he could have looked more closely at the degree to which a pre-existing shop culture could retard the transfer of flow production technology and ethos. Britain had the second largest auto industry during the interwar years and Ford did build a factory complex at Dagenham modeled on the Rouge. But as Wayne Lewchuk, Jonathan Zeitlin and other historians have pointed out, craft traditions in the UK were so strong, both on the shop floor and at the enterprise level, that true flow production was rejected in many factories. Managers there favored piece rate pay schemes that accommodated the shop floor autonomy so jealously defended by many skilled workers. Batch production gave way only slowly to a production regime organized around assembly line methods.<sup>30</sup> The same craft-based resistance, among skilled workers, engineers, and industrialists may well have contributed to the German foot dragging both Speer and Werner found so frustrating. As the U.S. Strategic Bombing Survey observed “the supply of competent mechanics in the German labor market was much greater than that available to American aircraft manufacturers.”<sup>31</sup>

Indeed, the aircraft industry, which is largely Link’s focus during the war, may not have been the best test case in which to measure the extent of flow production, certainly when comparing the U.S., Britain, and Nazi Germany. Pictures of the Ford Willow Run plant outside Detroit made the giant facility look like an assembly line, with partially completed bombers lined up one after another. But the actual production process there was batch production: designs were frozen so that 50 or 100 similar aircraft came out of the plant, after which production halted while a new set of specifications – the product of battlefield experience – were assimilated by the workforce. The same episodic production regime characterized B-29 production at Boeing. Indeed, those complex machines were so inadequate when they emerged from the factory that they were practically rebuilt at various outdoor “modification centers” in Kansas, Alabama, and elsewhere to make them ready for

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<sup>30</sup> Wayne Lewchuk, “Fordism and the Moving Assembly Line: the British and American Experience, 1895-1930,” in Nelson Lichtenstein and Stephen Meyer, eds., *On the Line: Essays in the History of Auto Work* (Urbana: University of Illinois Press, 1989), 17-41; Jonathan Zeitlin, “Flexibility and Mass Production at War: Aircraft Manufacturing in Britain, the United States, and Germany, 1939-1945,” *Technology and Culture* 36:1 (January 1995): 46-79.

<sup>31</sup> Zeitlin, “Flexibility and Mass Production,” 66.

shipment toward Pacific bases. In the postwar aerospace industry such batch production methods – though not the hastily deployed modification centers – became the norm as production runs declined and airplane complexity increased.<sup>32</sup>

This critique is offered not so much to subvert Stefan Link's narrative analysis as to re-emphasize perhaps the most important aspect of his work. Fordism was far more important as an ideology than it was an actual production technique. A production system that smoothly integrates men, women and the machines they operate has always been a managerial quest, even if it has never been achieved in the workaday world. Today we find its nearest approximation in the deployment of globe-spanning supply chains, high tech or low, that link Far Eastern production to Western distribution and consumption. The fact that a layered system of hyper-exploitative subcontractors, some hardly more than hand-crafting sweatshops, stands as the base of these supply chains has done little to subvert the ideological, political, and economic power of this twenty-first century version of international Fordism.

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<sup>32</sup> Zeitlin, "Flexibility and Mass Production," 56-57; Jacob Vander Meulen, *Building the B-29* (Washington, D.C.: Smithsonian Institution Press, 1995), 30-35.

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 REVIEW BY ELIDOR MĚHILLI, CITY UNIVERSITY OF NEW YORK
 

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At the exhibition “Engineer, Agitator, Constructor: The Artist Reinvented,” which was on view at the Museum of Modern Art (MoMA) in New York earlier this spring, many of the featured works celebrated the fusion of mass production and creativity.<sup>33</sup> There was, for example, a 1920s poster by the Polish graphic artist Henryk Berlewi announcing an exhibition (“Mechano-Facture”) to be held at the Austro-Daimler automobile showroom in Warsaw. A 1930s piece by the Soviet artist Solomon Telingater showed an ordinary truck magically transformed into an animated and bustling Red Army Theater—half-machine, half-Soviet mass enlightenment.

In an unrelated room on the 4th floor, I came across a toy truck—“Ford” written on its side—placed on a pedestal. “3F Truck” is the 1977 work of the Korean-born visionary Nam June Paik, who is widely considered a pioneer of video art. His many works also include the mash-up “Henry Ford on the Superhighway,” consisting of a reconfigured Ford Model A frame, Sony and Samsung televisions of various sizes, horns, mirrors, and goggles.<sup>34</sup> The result is at once futuristic, nostalgic, and apocalyptic.

From the ruins of Austria-Hungary and the bold Soviet experiment to the New York’s postwar art scene via a childhood marked by the Korean War, connections between mass production, geopolitics, and social critique are everywhere once you look. But it is easy to take them for granted. Parts of this legacy are still kept—as at MoMA—in separate rooms, in distinct national containers.

Based on impressive research in archives in five countries, in addition to work with published primary sources in English, German, and Russian, Stefan Link’s study of the German and Soviet adoption of Fordism between the world wars recaptures these connections by highlighting a shared interwar infatuation with mass production. Interesting stories like the ones in *Forging Global Fordism* do not necessarily need, in my view, too muscular a frame of analysis. But Link’s objective is to place them in a “structural narrative of the twentieth century” (18).

Link places Fordism’s international expansion in a *Delugian* frame, reintroducing the configuration of interwar “insurgents” rising up against the specter of a post-World War I pax Americana. In *The Deluge*, Adam Tooze argued that it was “the looming potential, the *future* dominance of American capitalist democracy, that was the common factor impelling [Adolf] Hitler, [Joseph] Stalin, the Italian Fascists and their Japanese counterparts to such radical action.”<sup>35</sup> Placing the story of Fordism within this framework allows us to see how triggering effects multiplied over time and to appreciate the contradictory outcomes of the Great Depression.

Patiently tracing the German and Soviet infatuation with Fordism, Link argues that the interwar period was not marked by deglobalization. Instead of a retreat from globalization, he sees “furious and consequential attempts to transform its very structure” (3), a voracious appetite for borrowing, for adopting, for competing. Detroit, and the mass production ethos that it came to embody, acquired admirers across ideological camps. The lessons of Fordism became “a compass” (3) for navigating the tempestuous postwar politics, a kind of powerful instrument for coming up with answers to the major problems of the era. When seen in the context of this wider anxiety to unshackle one’s country from the economic

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<sup>33</sup> <https://www.moma.org/calendar/exhibitions/5072>.

<sup>34</sup> <http://www.artnet.com/artists/nam-june-paik/henry-ford-on-the-superhighway-gU-evczqyYa6QU10-r0ggA2>.

<sup>35</sup> Adam Tooze, *The Deluge: The Great War, America and the Remaking of the Global Order, 1916-1931* (New York: Penguin, 2015). Emphasis mine.

configurations of the nineteenth century, from the destiny of being rural exporters, the Depression does not appear like a breaking point but rather as a kind of intensifier.

While the book takes issue with the view of the interwar period as a kind of ‘detour,’ it does not engage with Eastern Europe, the area where it makes sense to test this view, since it was where a profound frustration with “backwardness” unleashed artistic, literary, cultural, economic, and political outbursts.<sup>36</sup> For Link, the 1930s emerge as “an arena of sharp and increasingly violent contests over the question, Global economic relations on whose terms?” (17). He does not take for granted the rise of Fordism, and neither does he assume that Fordism and the American postwar consumerist model are two points in a single linear sequence. This allows him to explore the multi-directionality of the interests at play.

Link also does not treat the civilian and military aspects of Fordism as detached. Some of the same engineers who adopted the mass production techniques before the Second World War, he observes, later used them in wartime and then again in peacetime. Depression and war are not portrayed as interruptions but as intensifiers of the spread of Fordism. Here, too, Eastern Europeanists may recognize the argument about war as an accelerant and intensifier of exchanges, very often of the violent variety.

Challenges to assumptions about globalization and its timelines have become standard, even as critics often strain to come up with rivaling imagery and metaphors: unflattening; tensions and nodes; contestations; various efforts to make the more opaque structures of capitalism more central (and risk exaggerating them in the process). Link rightly challenges historians of globalization not to mistake “as ‘flows’ what have in fact been constantly contested claims on technology, capital, goods, and information within a shifting political architecture of geo-economic relations” (217). But the sentence also makes clear the challenge of coming up with an effective counter-vocabulary to ‘flows.’

There has also been renewed attention to illiberal internationalism—and its various nascent, imaginary, or reluctant forms.<sup>37</sup> In the field of public health, to name just one example, the interwar years were a key period of international experimentation with epidemics and diseases, with trying to understand the world as a tensely connected thing.<sup>38</sup> Some of what we take for granted—from parasites to ideas about ‘the planetary’ as a scale—can be traced to efforts between the world wars. Though this book may not directly engage with this wide-ranging literature, it is useful to read it alongside it.

A relentlessly U.S.-centered vision of globalization after the wreckage of the Second World War can be a suffocating one. Countries left on the periphery of the American global enterprise, and those who study them, have to make do with being told they are constantly caught in someone else’s great game. When critical analyses of the U.S. engagement with the wider world keep the U.S. central (and often exclusive) to the study of power, they forego the need to bother with the languages, historiographies, and quirks of other places. Non-capitalist globalizing experiments are, at most, curiosities to be discussed at sparsely attended conferences, funky experiments assumed to have been doomed in the face of the U.S. mammoth.

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<sup>36</sup> The effects of the Depression were deeply felt in Eastern Europe, where governments presiding over peasants took radical measures towards austerity, thus feeding authoritarianism. Iván T. Berend, *Decades of Crisis: Central and Eastern Europe before World War II* (Berkeley: University of California Press, 1998). In Berend’s view, having mounted an illiberal revolt against the West during the interwar years, Eastern Europe would do it again after 1945. See his *Central and Eastern Europe, 1944-1992: Detour from the Periphery to the Periphery* (Cambridge: Cambridge University Press, 1996).

<sup>37</sup> For the most recent contribution—the outgrowth of many years of research and trans-Atlantic collaboration—see David Brydan and Jessica Reinisch, eds., *Internationalists in European History: Rethinking the Twentieth Century* (London: Bloomsbury, 2021).

<sup>38</sup> For example: Heidi J. S. Tworek, “Communicable Disease: Information, Health, and Globalization in the Interwar Period,” *The American Historical Review* 124:3 (June 2019): 813–842.

Seen in this light, Link's work in expanding the frame of analysis, and especially his emphasis on the Soviet industrial effort, deserves much praise. While he pays attention to the centrality of American power, he argues that development urges found their voice at the local level, in the form of "self-initiated industrial upgrading" resulting not from "the dictates of American empire but from revolts against them" (17).

In drawing a picture of this era, thus, *Forging Global Fordism* centers the "reaction to a self-assessment of comparative weakness in the world economy" (12). What does this mean for the agenda of understanding the interwar period? Other than industrial output and defense spending, does it also require attention to mass culture and evolving techniques of mass media? What comes to mind here is the interplay of how American "success" became translated (or not) and how it provoked both fascination and resistance as outlined in Mary Nolan's classic *Visions of Modernity*.<sup>39</sup> Are the stories of "self-assessment" and "comparative weakness," of national anxiety about falling behind, of getting stuck—hardly interwar conditions alone—in search of a frame built primarily on political economy, or some combination thereof with culture and sociology?<sup>40</sup>

While *Forging Global Fordism* gestures away from culture, Link does devote his second chapter to the dissemination of a book (Ford's *My Life and Work*), which he sees as "a chapter in the longue durée of Europe's twentieth-century infatuation with America" (53).<sup>41</sup> It is a fascinating story-within-a-story that serves as a reminder that international engagement is also about translation, editorial work, publicity, and sometimes randomness in access and habits of readings (for example: how the Italian Marxist author Antonio Gramsci had access to French editions of Ford's texts). This chapter also illustrates how the process of Fordism being transformed into a theory has a clear element of narrative projection. As a powerful narrative, did mass production mislead and overly simplify? Should we give in entirely to its appeals of grand explanations?

The book maps a compelling path to war in the story of mass production, although there were other European reactions to Fordism. Consider those set out in Daniel Rodgers's *Atlantic Crossings*. "Fordism invaded Europe as a progressive idea," he argued back then, "future-oriented, flexible, and melioristic."<sup>42</sup> In Weimar Germany, the machine age and the housing question combined in innovative ways to create progressive outcomes. The idea of mass housing for the poor—intense debates about the minimum standards for human life and how these could be achieved at scale—had wide-ranging influence. In Jean-Louis Cohen's latest book, we learn about the deep Russian (not only Soviet) fascination with *Amerikanizm*, as was made evident in architecture and construction.<sup>43</sup> Mass production as a powerful vector into wartime mobilization is an engrossing story, of course, but what about the other uses?

Link convincingly frames the era as a dramatically referential one. One question that pops up is whether projection requires a single overriding reference point. Italian elites well before the rise of fascist party boss Benito Mussolini were fixated with the idea of being late to empire vis-à-vis other European powers. Soviet leaders had a fixation with Britain, as well as the United States. "No country had seemed capable of surpassing Great Britain, whose overseas empire would soon encompass a quarter of the globe," writes Stephen Kotkin, "and whose power obsessed both Stalin and Hitler as the prime mover of the

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<sup>39</sup> Mary Nolan, *Visions of Modernity: American Business and the Modernization of Germany* (New York: Oxford University Press, 1994).

<sup>40</sup> For the insight on the "sense of urgency, of time always slipping away from" Hitler and Mussolini, see Mark Mazower's review of *The Deluge* in *The Guardian*, 19 June 2014.

<sup>41</sup> Henry Ford with Samuel Crowther, *My Life and Work* (Garden City: Doubleday, Page & Company, 1922).

<sup>42</sup> Daniel T. Rodgers, *Atlantic Crossings: Social Politics in a Progressive Age* (Cambridge: Harvard University Press, 1998), 375.

<sup>43</sup> Jean-Louis Cohen, *Building a New World: Amerikanizm in Russian Architecture* (New Haven: Yale University Press, 2021).

entire world.”<sup>44</sup> At a later point in the 1950s, when Stalin’s successor Nikita Khrushchev boasted of wanting—planning—to overcome the U.S., China’s mercurial Chairman Mao Zedong declared a plan to overtake Britain.

*Forging Global Fordism* captures surprising connections, visits, exchanges, and the push-and-pull of technical agreements with incredible skill (as in chapter 3). When it zooms out, however, in order to capture a larger picture, it lumps the Soviet Union into the category of *Lebensraum*, Italian colonialism, and the East Asian Co-Prosperity Sphere (10). Was the Soviet Union not merely trying to challenge a rising U.S. as a geopolitical reality but principally as an ideological one? This is an important question because the Soviets also happened to be the one insurgent project to survive the wreckage of the Second World War.

Link writes about a “smoke screen of ideology and Cold War assumptions” (10). He states that “in moments of frankness, Marxist vocabulary took a backseat to a conspicuous rhetoric of catch-up development” (11), but these did not have to be mutually exclusive. One can agree with Link entirely that industrialization “was not purely a matter of ideological predilections: its significance was at once economic, militarist, and political” (12) but “purely” here seems to sidestep the question of what was the core of the Soviet project. He relies on some of the very best economic historians of the Soviet Union, like Mark Harrison and R. W. Davies, who have painstakingly researched the nexus of industry, planning, and war—a crucial task of considerable difficulty not easily understood by those outside of the field.<sup>45</sup> But precisely because the book covers so much ground, the treatment of the Soviet literature raises more questions.

When it comes to the post-Second World War period, for example, Link critiques the idea of the Soviet Union “as a zombie holdover from the interwar period on which the historical clock was always implacably ticking” (18). It is hard to square this criticism with recent scholarship on post-1945 Soviet global engagements, published in the last decade or so.<sup>46</sup> A good deal of this literature has shown, if anything, how the Soviet blueprint was alive enough to be exported abroad, and how the Chinese launched their own competing international efforts, building on the Soviet models. The question has not so much been whether the Soviet path was “categorically different” (10), but whether the Soviets thought, spoke, and acted as if they wanted to be in a different category.

Link rightly urges scholars to do more work on “state-led, competitive economic politics” (18). A simple look at China today makes clear the importance of the subject upon which *Forging Global Fordism* so impressively builds. Looking at the Soviet Union back then—or China today—leaves us with an open question: Does one better make sense of the story of state-led mass production from the outside looking in, or from the inside out?

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<sup>44</sup> Stephen Kotkin, *Stalin: Waiting for Hitler, 1929-1941* (New York: Penguin, 2017), introduction.

<sup>45</sup> For example: Mark Harrison, ed., *The Economics of World War II: Six Great Powers in International Comparison* (Cambridge: Cambridge University Press, 1998), and R. W. Davies, Mark Harrison, Oleg Khlevniuk, and Steven G. Wheatcroft, *The Industrialization of Soviet Russia: The Soviet Economy and the Approach of War, 1937–39* (London: Palgrave Macmillan, 2018).

<sup>46</sup> This literature is already too vast to capture in a single footnote, but an indicative example is a recent special issue on “the African-Soviet Modern” in *Comparative Studies of South Asia, Africa and the Middle East* 41:1 (June 2021): 2-70, featuring the work of Elizabeth Banks, Robyn d’Avignon, Asif Siddiqi, Andrew Ivaska, and Steffi Marung.

REVIEW BY ALEXANDRA OBERLÄNDER, CENTER FOR THE HISTORY OF EMOTIONS, MAX  
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Who would have thought that the Soviets won the war thanks to mass production founded on Fordist principles?<sup>47</sup> And who would have guessed the Nazis lost the war because they failed to introduce Fordist mass production in time? Although this is not the explicit argument of this sweeping narrative about Global Fordism it was – among other things – capitalist technology that enabled the Soviets to win the war and it was capitalist principles, e.g. competition, that contributed to the Nazis losing it. This book joins the limited ranks of other (recent) research that has the potential to fundamentally shatter common narratives about the global twentieth century.<sup>48</sup> Stefan Link scrutinizes the narrative of the retreat from globalization in the interwar period, and especially after the financial crisis of 1929. Instead Link emphasizes the “rich exchanges in an age we associate with de-globalization and the breaking of the international economy into isolated blocks” (3). Even though autarky was the long-term goal in Nazi Germany as well as in the Stalinist Soviet Union, in order to achieve that goal both economies had to rely on international knowledge, international technology, and transnational labor power.<sup>49</sup> In 1931, its peak year, the Soviet Union counted 124 technical assistance programs with foreign firms – among them General Electric, Krupp and Siemens (91). Link argues that mass production was key for German and Soviet attempts to rectify their underdevelopment in comparison to the United States. Ford’s production site in River Rouge, where international delegations routinely flocked to select engineers, view the machines, and copy the technology, was the template for their endeavors.

*Why Ford?*

What Ford, the Soviet Union and Nazi-Germany had in common was their attraction to illiberalism. Yet, as Stefan Link carefully carves out, the European regimes had differing reasons. Whereas it was the producerist and populist philosophies of Henry Ford and his industrial politics that spoke to the Third Reich, what fascinated the Soviets was the precision and technology of Fordist mass production and above all, its mastery of the plan. According to Link, Ford’s rejection of anything even remotely resembling the world of finance was particularly attractive to Nazi leaders, who shared Ford’s disdain for that world due to their interpretation of capitalism, which simply ignored the necessity of credit and its alleged ‘unproductive’ nature. Indeed, the stunning rise of the Ford factory model throughout the 1920s occurred without any bank credit whatsoever – a fascinating detail, of which Link has many to offer. Ford’s enormous growth was the sole result of reinvesting profits (Ford had three stockholders in the 1930s (45)). This ‘interest-free’ policy certainly suited the Nazis. Another element which facilitated the export of Ford’s principles to Germany in the early 1920s was Henry Ford’s admiration for a communitarian and anti-egalitarian society, something he laid out in his book *My Life and Work*, which had a print run of 200,000 copies in Germany alone.<sup>50</sup> In Link’s reading, the notion of service (through labor) was particularly appealing to the Germans.

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<sup>47</sup> I would like to thank Lewis Siegelbaum for his comments and Daniela Petrosino for her copy-editing of the submitted draft of the review.

<sup>48</sup> Oscar Sanchez-Sibony, *Red Globalization: The Political Economy of the Soviet Cold War from Stalin to Khrushchev* (Cambridge: Cambridge University Press, 2014); Oscar Sanchez-Sibony, “Global Money and Bolshevik Authority: The NEP as the First Socialist Project”, *Slavic Review* 78:3 (2019): 694-716; David Engerman, *The Price of Aid: The Economic Cold War in India* (Cambridge: Cambridge University Press, 2018).

<sup>49</sup> Here he explicitly builds on Sanchez-Sibony, *Red Globalization*. As Link mentions on page 223, footnote 37, most historians of the Nazi economy would still assume that the NS-economy was “sui generis” and would not quite “fit into the Global Thirties”.

<sup>50</sup> Henry Ford, *My Life and Work* (Garden City: Doubleday, Page & Co, 1922).

One could easily argue, though, that this notion of labor as service would have been no less appealing to the Bolsheviks. Link does not do so. Interestingly, in his story the Bolsheviks appear as cold, calculating and rational agents who were matter-of-factly interested in numbers and outcomes, in ‘science’ if you will, and not remotely in anything ideological. As soon as Ford’s *My Life and Work* appeared in Russian translation in 1924 (with 80,000 copies circulating by the end of the decade), “Soviet commentators set about separating Ford’s production achievements from his political philosophy” (82). This somewhat intriguing reading of the Bolsheviks as mostly interested in flow-production, standardization, the conveyor belt – in short, in plain numbers – might elicit one or two raised eyebrows and the question of what qualifies as ideology in the first place? Clearly, in introducing Fordist methods, the workers’ state did not have the wellbeing of those actually working in mind. What made Fordism seem the superior production technique in the Bolsheviks’ eyes was its shift away from the individual worker to a system of inanimate and precise machines. This shift effectively de-skilled workers and implied a certain class war on the shop-floor. In this sense, the Bolsheviks were willing to pay a high price, not for the first time and not for the last. And of course, many involved in the process of building what came to be GAZ (Gorkovskii avtomobil’nyi zavod) in today’s Nizhni Novgorod paid with their lives during the “Great Terror.”<sup>51</sup>

### *Soviet Fordism*

Link emphasizes the role international technology transfers played in the Stalinist industrialization program during the first Five-Year-Plan and its inauguration in the early 1930s. He explicitly disputes the narrative that international transfers were a phenomenon specific to the post-1945 world order and forces us to look at what seems to be a success story for the Soviets, beginning in the 1930s, whereas Germany only began to share this success after the war. According to Link, the reasons for this asynchronous success can be found in the two differing political economies of the two regimes, an argument which becomes especially interesting and controversial when he investigates the differences in the war economies and the mass production of military vehicles from 1941 onwards. For the Soviets, the foundation for winning the war was a deal made in late 1929 in which the Soviets essentially hornswoggled Ford. According to Link, Soviet efforts “stood out in both ambition and ruthlessness” (93). Soviet leaders were not so much interested in producing cars as a consumption item as they were in copying flow production and acquiring the knowledge needed to enact it. Charles Sorenson, Ford’s chief negotiator in the summer of 1928, “burst out laughing” in the faces of the Soviet delegates when they informed him that they were planning to build a factory with a capacity of 12,500 vehicles a year (100), a number Ford produced in a matter of days. To the Soviet Union, however, 12,500 vehicles would have almost doubled its entire fleet of cars, which in the mid-1920s consisted of about 18,000 vehicles. Although the flow production Ford envisioned did not make much sense with such small numbers, the Soviets reached their goal. They signed a contract with Ford in 1929 and nabbed such a good bargain that it leaves one wondering what Ford actually gained from it. Link’s answer to my surprise would have been that Henry Ford indeed was a proselytizer. He was simply happy to spread his “populist vision of mass production.” (7)

To some degree, the “Ford agreement” and the subsequent sections in the chapter on the “Soviet Auto Giant” read like an economic thriller, no small achievement considering that Link is basically narrating a story about hard currency, technology transfer, and export quotas. In 1930, the Soviets stopped their New Economic Policy (NEP)-era politics of concessions to western firms, which previously had brought much needed hard currency in. Soviet leadership decided to spend huge amounts of hard currency – a stunning 30 million dollars – to finance their technical assistance agreement with Ford from 1929. It intended to acquire Ford’s knowledge, technology and labor power by essentially exporting grain, in other words: producing hunger at home. What started out as a costly deal (foreign currency) that clearly disadvantaged the Soviet economy turned into a technology-and-brain-drain scheme from the U.S. to the USSR. Detroit welcomed the Soviet delegates, who treated the Ford plant as an open-source treasure trove; there were no qualms about industrial espionage. When the Depression kicked in after 1931 and grain prices began dropping drastically, in 1934 Soviet leaders eventually decided to halt the agreement. At that point, they had spent 4 million dollars on machines and close to 17 million dollars on half of the stipulated 72,000 Model A-cars, but they were in possession of technological knowledge and processes which

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<sup>51</sup> On the history of GAZ in particular see Lewis Siegelbaum, *Cars for Comrades: The Life of the Soviet Automobile* (Ithaca: Cornell University Press, 2008).



proved invaluable. The most stunning fact, however, is that Ford remained friendly towards the Soviet delegates even after the one-sided termination of their agreement. There did not seem to be any hard feelings when the contacts between Sorenson and some of the Soviet delegates (those who managed to survive 1937) continued up until at least 1941. Link mentions that the Soviet deal to no small degree helped Ford (and many of its suppliers) through the Depression. However, the point Link primarily makes is that Ford was indeed a missionary who was happy to spread the word about flow and lean production to everybody who wanted to hear it. And the Ford company did it again when Nazi Germany received a similarly positive, albeit different, treatment some years later.

### *Fordist Competition*

One of the core arguments of Link's book is that although Nazi Germany and the Soviet Union wanted the same thing – the mass production of cars as a strategic sector in order to overcome their comparative underdevelopment vis-à-vis the United States – they did so using entirely different methods. Nazi Germany failed to build its own large factory to manufacture the Volkswagen *Beetle* before 1945 as had originally planned. But it succeeded in utilizing U.S. enterprises like Ford and General Motors to essentially help in the rearming of Germany without spending too much German hard currency. In fact, when the war broke out, the Ford AG in Cologne produced almost one fifth of the German trucks that would be needed as military vehicles. Reading Link's chapter on "Nazi Fordism" I felt both surprised by how effectively the Nazis played the contestants (GM, Ford, Daimler, Porsche, the list goes on) to get the new Volkswagen built (a decision eventually made in Porsche's favor, in 1937) while at the same time ignoring the detrimental effects of this very competition which lasted four long precious years. Given their racist ideology, how could Nazi leaders not trust in the capitalist principle that competition would yield the best outcome? As mentioned, not a single Beetle left the Wolfsburg factories until after the war which is why the Nazi-Volkswagen story is usually told as one of failure. But here too, Link manages to reassess a common narrative and replace it with one that globalizes and sharpens the story of the Second World War. In his reading, the Nazis "mobilize[d] the Americans' resources in the service of Nazi political goals and squeeze[d] mass production expertise of them" (144). The political goals Link refers to include the *Lebensraum* policy in the East, a policy which undoubtedly resulted in the highest number of victims between 1939 and 1945, and a policy which could rely on the interests (in profit) of GM and Ford.

### *Fordist War*

The book culminates in a retelling of the "Great Patriotic War" by focusing on the history of economy, knowledge, and technology. For Link, the outcome of the war depended on the "war of the factories" – and their mass production of "guns, tanks, fighters, bombers, ships, and ammunition" (173). Link contributes to the reviving field of research on the Nazi economy by focusing on what he calls the "institutional interface that bridged the ministries and the shop floors" (175), a space which was populated by engineers.<sup>52</sup> This is yet another merit of Link's book because much of his narrative rests on the middle-men of economic and political decision-making (in the Soviet case, too). In this particular chapter he follows William Werner, an engineer who made his career in the 1930s in the auto-industry and who after 1941 used this knowledge to create mass-produced designs in the aircraft sector for Nazi Germany. In this last chapter Link explores Fordist principles and their application for the purposes of war. Reducing waste, producing more items with fewer raw materials and of course, less labor power (both in quality and quantity) were the most pressing issues for Nazi Germany. The Nazi War economy relied on the stunning exploitation of labor forces; weekly hours worked rose as high as 69 in March 1944 and productivity shot up by more than two times between 1941 and 1944 (p. 193).

However, the Soviet Union was able to eclipse these successes, something Link sets up as a "miracle," and one that he aims to explain (195). The context of this miracle is of course that the Nazis essentially steamrolled the Soviet Union in 1941 by

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<sup>52</sup> Adam Tooze, *The Wages of Destruction: The Making and Breaking of the Nazi Economy* (New York: Viking, 2007). Link also explicitly addresses the recent discussion about the so-called "Rüstungswunder" (armament miracle). See e.g. Jonas Scherner and Jochen Streb, "Das Ende eines Mythos? Albert Speer und das sogenannte Rüstungswunder", *Vierteljahresschrift für Sozial- und Wirtschaftsgeschichte* 93:2 (2006): 172-196.

occupying more or less most of its western parts. At the same time, and especially after 1942, Soviet leaders managed to effectively use the principles of flow production to considerably increase their military production in the middle of a disastrous war. For instance in 1942, half of the light tanks produced for the Soviet Union rolled off the conveyor belts of Gorkii's GAZ. Link provides several reasons for this miracle. First, evacuation plans helped to re-locate considerable sectors of the Soviet machine building industry to eastern regions like the Urals. Second, the Soviet Union succeeded in increasing its military production during a devastating war thanks to the principles of flow production, which allowed it to produce more with fewer and less qualified, mostly unskilled, workers (the skilled workers went to the front). Third, the Soviet Union channeled all of its economic resources into the military sector and "managed to squeeze out the civilian economy much harder and more quickly than Nazi Germany" (197). And finally, the Soviets simply opted to mass produce, thereby throwing quality overboard. Somewhat surprisingly, however, in summarizing the reasons for this Soviet miracle, Link argues that the Soviet Union's "capacity to ruthlessly mobilize" its resources was its main advantage. He concludes that "the Soviet state was able to uproot people, commandeer resources, and shuffle them across geography and jurisdiction with little chance of meeting organized opposition; it could dictate standards and production programs without having to overcome the kind of local foot-dragging on the firm level that so exasperated William Werner" (205).

The miracle thus turns into a question of effective state violence, something Nazi Germany seemed to have lacked in Link's reading. He backs up this claim by quoting none other than the minister of armament and war production Albert Speer himself, who (jealously) remarked that the Soviets were simply more violent than the Nazis. This is the moment in the book where I am bit troubled, not because I would deny the role of state violence for either one of the regimes. However, I am simply not sure if state violence is indeed the chief reason behind the Soviet miracle and the difference in the two war economies. For one, the Soviet Union had a command economy whereas Nazi leaders were trying to steer an economy based on private interests and competition into becoming a war economy without suspending private interests – something Link notes. Another important factor is the ideological nature of the war. The Nazis threatened to extinguish and annihilate anything Soviet – and they had made much progress in this quest by 1942. The Soviet Union fought for its sheer survival. When the Germans bombed Gorkii's GAZ out of production in June 1943, Soviets leaders managed to have the plant running again in November 1943, a mere five months later. Moreover, it was not only fully reconstructed but received "radical improvement in factory organization" and "full flow organization" (200). I doubt that something like this could be achieved by coercion and violence alone.<sup>53</sup> It seems to me that ideology and its mobilizing forces are missing in Link's comparison of the two war economies of Nazi Germany and the Soviet Union.

However, this should not diminish the extraordinary achievement and fascinating contribution that is Link's highly engaging and page-turning book. The scope of the literature that was read and the sources (13 archives alone in the US, Germany, Russia, Italy and the UK) which Link combed through is astounding. The re-interpretation of the heyday of Fordism is convincing. Link gives us nothing short of a new and essential building block with which to re-write the history of the twentieth century. The descriptor "must-read" does not do it justice: everybody should read this book.

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<sup>53</sup> Jochen Hellbeck, *Die Stalingrad-Protokolle: Sowjetische Augenzeugen berichten aus der Schlacht* (Frankfurt am Main: S. Fischer, 2012); Anna Krylova, *Soviet Women in Combat: A History of Violence on the Eastern Front* (Cambridge: Cambridge University Press, 2010).

RESPONSE BY STEFAN LINK, DARTMOUTH COLLEGE

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Let me begin by thanking Taomo Zhou for organizing and Nelson Lichtenstein for introducing this forum. Reading these responses to *Forging Global Fordism* is thrilling. It is also a relief. As I wrote the book, the difficulty of working across historiographies and conceptual languages at times appeared overwhelming. To receive responses from scholars whose work spans from Eastern Europe and the Soviet Union to China, from American labor history to Weimar economic thought, reassures me that reaching across fields was a hope not entirely in vain.

So, to the reviewers: thank you for this polyphonous symposium. Kristy Ironside and Nelson Lichtenstein serve up synopses of the book more adroit and lucid than any I've seen, including my own attempts. Elidor Mēhilli tenders a veritable essay; I doff my hat to his flair for Fordism's flotsam and cultural crystals. Roman Köster and Seung-joon Lee afford *Forging Global Fordism* contexts both original and congenial, adjoining vistas from the writer Peter Drucker to the Guomindang. Alexandra Oberländer provides a case study in perceptive engagement that is daunting and (too?) gracious at once.

The reviewers also challenge the book's argumentative ramparts on a whole range of issues big and small, and I will have to resist the temptation to respond to all of them. Let me focus instead on three larger themes that pervade the reviews. First, what does the book contribute to our understanding of the history of Fordism, especially the relationship between its ideological and technological-practical aspects? Second, how does *Forging Global Fordism* fit into the practice of global history? And third, what does the book add to our understanding of World War II and one of its more consequential questions, namely why the Soviets won and the Germans lost? The thread that will be running through my response is also central to the book: the role of states. It is a topic that I hope historians will increasingly rediscover.

So first, Fordism, both as ideology and as practice. Let me begin by sketching what I see as the book's main interventions in this regard. Regarding ideology, I argue that Fordism has been misunderstood as a capitalist-reformist and thus thoroughly anti-revolutionary doctrine. This begins with Henry Ford's own version of Fordism, suffused as it was with the contrarian producer populism of the Midwest. I then talk about the remarkable splash Ford's books made abroad in the 1920s. That impact is known; what I argue specifically here is that it was *postliberal* radicals (both left and right) – and not the conservatives who sought to “recast bourgeois Europe”<sup>54</sup> – who received Ford's ideas with the greatest alacrity. Regarding Fordism's practical diffusion, the book traces how Soviet and Nazi engineers, backed by activist states, adopted and adapted flow production, modern machinery, and the concomitant techniques of mobilizing unskilled workers. The argument here is that it was during the 1930s and World War II (not, as is commonly assumed, in the 1920s or in the postwar period) that the technological capacity to mass-produce first moved abroad on a large scale. To put it a bit too bluntly, the book argues that the main impetus to Fordism's first globalization was not the perennial managerial quest to pacify labor, nor firms' strategies in competitive markets, but the need of military-industrial states to mass-produce in an environment of fierce geopolitical rivalry. The book shifts the terrain on which Fordism's spread has traditionally been explained: from labor relations to competitive development; from firms to the state; from liberal-capitalist contexts to illiberal ones; from the 1920s to the 1930s.

This interpretive shift can perhaps be clarified by recalling the two major approaches to the history of mass production that were available when I began work on the book. One was a critical, generally Marxist-inspired, history and sociology of labor. On the level of the firm, this literature tended to view Fordism (assembly-line work) as a strategy of managerial control, parallel to Taylorism. This analysis was often deployed within a Regulation-school framing, which understood Fordism as a historical phase of capitalism, arising in the West after 1945 and failing during the 1970s (to be replaced by post-Fordism).<sup>55</sup>

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<sup>54</sup> Charles S. Maier, *Recasting Bourgeois Europe* (Cambridge: Harvard University Press, 1975).

<sup>55</sup> For an overview, see Bob Jessop, “Regulation Theories in Retrospect and Prospect,” *Economy and Society* 19:2 (1990): 153-216.

The second approach was that of the “flexible specialization” school of Jonathan Zeitlin and his collaborators. Central to this literature was a distinction between two technological paradigms: mass production, on the one hand, and “craft production or flexible specialization,” on the other. To explain which technological paradigm prevailed and where, “flex-spec” scholars focused on the strategies pursued by firms in markets presumed to be international and competitive.<sup>56</sup>

Neither approach offered much guidance for my purpose: to understand Fordism’s reception in Nazi Germany and the Soviet Union.<sup>57</sup> This was, as I eventually came to see, because of two major defects in these literatures. The first regards ideology. In the Marxist-Regulationist vein, ideology was ultimately a reflection of capitalist needs; in particular, this approach could not grant historical consequence to non-socialist anti-liberal ideologies, such as Ford’s producer populism. Relatedly, who made those “normative assumptions about the superiority of mass production” that irked Zeitlin & Co so much, and why?<sup>58</sup> The second defect was the limited analysis of the state. In the Marxist literature, states performed a functional role as guarantors of an accumulation regime (by managing demand, providing welfare, brokering between capital and labor, etc.). In the flex-spec view, too, governments were background players who might variously enable or constrain firms (for example, by facilitating regional or cross-sectoral cooperation, or failing to do so). Neither approach illuminated the role that states so visibly assumed in the 1930s: that of interventionist maker and enforcer of industrial policy – not only against labor but also *against firms*. The conceptual language needed to deal with this shift only gelled for me when I read the literature on developmental states. Here states, which were embroiled in geopolitical rivalry, could be seen pressing for industrial upgrading and orchestrating technology transfers, all in the service of a catch-up effort steeped in ideological mobilization. This literature described how, in doing so, states often found themselves compelled to “discipline capital” – a notion that seemed to me to cry out for creative amendment. Intriguingly to me, this scholarship also implied that both fascism and Communism could be understood, at least partially, as ideologies of catch-up development.<sup>59</sup>

Accordingly, the ‘big historical movers’ in *Forging Global Fordism* are geopolitical competition, ideology, and the state. The reviewers largely accept the geopolitical framing – eased surely by the fact that it is based on Adam Tooze’s influential repositioning of America’s rise as the twentieth century’s central challenge.<sup>60</sup> The sections on Fordism-as-ideology also appear to find heartening approbation – in particular, I anticipated resistance to my reading of Henry Ford’s producer populism; it appears I worried needlessly.

Curiously, however, my arguments about the state evoke a relatively faint echo in the reviews. Thus three of my commentators come away with the impression that the ideological reception of Fordism abroad was more consequential than its practical (technological, industrial) counterpart. Köster stresses the ideological appeal of Fordism to illiberal

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<sup>56</sup> For a good introduction, see Paul Hirst and Jonathan Zeitlin, “Flexible Specialization versus post-Fordism: Theory, Evidence, and Policy Implications”, *Economy and Society* 20:1 (1991): 1-57.

<sup>57</sup> To be sure, Regulationists tried to assimilate the Soviet Union into their paradigms by calling it “state capitalism” – rather unpersuasively, in my view. “Flex-spec” scholars, meanwhile, ignored the Soviet Union – an absence telling of this literature’s grounding in concepts of market rationality.

<sup>58</sup> Hirst and Zeitlin, “Flexible Specialization versus Post-Fordism,” 48.

<sup>59</sup> For a useful short introduction, see Stephan Haggard, *Developmental States* (Cambridge: Cambridge University Press, 2018). Particularly useful to me were Chalmers Johnson, *MITI and the Japanese Miracle: The Growth of Industrial Policy, 1925-1975* (Stanford: Stanford University Press, 1982), Richard Samuels, “*Rich Nation, Strong Army*”: *National Security and the Technological Transformation of Japan* (Ithaca: Cornell University Press, 1994), and Atul Kohli, *State-Directed Development: Political Power and Industrialization in the Global Periphery* (Cambridge: Cambridge University Press, 2004).

<sup>60</sup> Tooze, *The Deluge*. American preponderance is already the background theme in Tooze’s *The Wages of Destruction: The Making and Breaking of the Nazi Economy* (London: Allen Lane, 2006).

regimes, in particular the vision of the shop floor as an organic community. Lee focuses on the reception of Fordism at the “grassroots” and sees in the readers of Ford’s books the “primary historical actors who made Fordism truly global.” Lichtenstein even concludes that Fordist ideology was “far more important” than Fordist practice.

I confess to some puzzlement here; after all, the bulk of *Forging Global Fordism* covers the pervasive impact of state-orchestrated transfers of mass production technology. No doubt this lopsided reading has to be chalked up to a failing of the book, which, as I recognize now, does not fully explain how the ideological reception of Fordism in the 1920s relates to its practical adaptation in the 1930s. To offer an attempt at clarification: it seems to me that the import of Ford’s books was macro-ideological, so to speak. It lay less in invocations of factory community or in precise prescriptions of shop arrangements (though these were eagerly received) than in the political-economic roadmap for geopolitical insurgency and reversal. (In this sense, to respond to Oberländer’s comment, the Bolshevik reading of *My Life and Work* was not simply “rational” but deeply ideological.) We also have to contend with this reality: While the rhetorical infatuation with Fordism was immense in the 1920s, outside of the US the material impact was puny. The inverse might be said of the 1930s: while technology transfers accelerated, the ideological reception of Fordism became less pronounced. What made the difference was the newfound aggressiveness of states in the wake of the Depression. *Pace* Köster, then, my claim is not that Fordism had a special ideological appeal to authoritarian *regimes*. In the 1930s, when these regimes came into their own, Fordism’s appeal was *practical*: it was a dispensation for military-industrial buildup. When it came to ideological mobilization, Nazi Germany and the Soviet Union hardly required *My Life and Work* as a manual. They had plenty ideas of their own, as German Labor Front spectacles and the heroics of Stakhanovism bear out (in fact, the latter militated against core functional aspects of flow production, as I point out in the book).

To deepen this point: ideological excitement only goes so far. This may be illustrated by picking up Lee’s fascinating reference to the Chinese Ford reception, for which I thank him. It is entirely plausible that Guomindang nationalists should have been attuned to the global vogue around Fordism in the 1920s. But here the similarities end: a capable Chinese automobile industry had to wait until the twentieth century’s waning years. The reasons seem obvious and relate to states’ institutional ability (or lack thereof) to pursue economic development. The political disunity of interwar China, along with weak state capacity, continuous warfare, and Japanese imperialism, made ambitious industrialization impossible to achieve. It is a telling testament to these limitations that when the Communists consolidated their sway in 1949, formerly Japanese Manchuria was China’s most industrialized region by far.<sup>61</sup>

Focusing on differential state capacity for industrial development also modulates how we think about resistances to Fordism. Both Lichtenstein and Köster field the thesis that craft traditions prevented the introduction of “true” mass production in Britain, thus contributing to postwar industrial decline. (A similar hypothesis has long been floated to account for German under-performance in World War II – more on this below). It is worth pointing out that there is no consensus on the matter. As Lichtenstein notes, Wayne Lewchuk’s classic work argued that in comparison with the United States, labor in Britain retained greater control over the production process. Yet for Lewchuk the result was a “British system of mass production” in which shop-floor power was less uneven than in Detroit but “the production techniques used were surprisingly similar to those found in many American factories.”<sup>62</sup> Zeitlin characteristically concluded that the difficulties of British industry after the war owed to *too great* a focus on mass production.<sup>63</sup> David Edgerton has argued that the very

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<sup>61</sup> Koji Hirata, “Made in Manchuria: The Transnational Origins of Socialist Industrialization in Maoist China,” *American Historical Review* 126:3 (2021): 1072-1101.

<sup>62</sup> Wayne Lewchuk, *American Technology and the British Vehicle Industry* (Cambridge: Cambridge University Press, 1987), 183-185.

<sup>63</sup> Zeitlin, “Flexibility and Mass Production at War,” 74-75, 77.

notion of decline is misleading.<sup>64</sup> The obvious point, made long ago by the flex-spec school, is that it is a mistake to leap from production setups to grand hypotheses about industrial success or decline: political economy matters. The approach most congenial to *Forging Global Fordism* would again ask about state industrial policy. In this light, what explains the demise of the British auto industry is not so much misguided technological paradigms or inexorable craft traditions but the persistent failure of postwar British governments to bolster carmakers as part of a nationalist strategy. In comparison, West Germany eagerly nurtured a national champion – Volkswagen – while coddling its “flexible” marqueses BMW and Mercedes.<sup>65</sup>

This consideration on international economic competition leads to our second theme: global history and the book’s contribution to it. Mēhilli reflects on the challenges to writing histories of twentieth-century globalization without reproducing triumphalist narratives that center on the West. This is a concern as old as the transnational turn itself; few historians would disagree with Patricia Clavin’s early admonition not to “present transnationalist encounters as consistently progressive and cooperative in character.”<sup>66</sup> One might say that historians have responded to Clavin’s challenge in three ways. One has been to focus on non-liberal forms of interconnection, from migration and organized crime to colonialism and war. A second has been to stress illiberal internationalist networks and aspirations (such as those of fascists, Communists, and Catholics), or to highlight the illiberal underbelly of League-of-Nations-type internationalism.<sup>67</sup> Most recently, there have been efforts to recover “alternative globalizations,” especially of the East-South and South-South variety.<sup>68</sup>

Where does *Forging Global Fordism* fit? In exploring the 1920s Ford mania, the book does recover an illiberal internationalism of sorts; or more precisely, it reconstructs a discourse that was symptomatic of the era’s post-liberal politics both left and right. In the chapters on technology transfers, however, my ambition was to break new ground. The goal was not to show that engineers serving illiberal regimes were internationalists too – a banality? – but to show why they had to be. Catch-up development is referential, yes, but that is not what is most interesting about it. What is most interesting about it is that it points to the uneven distribution of economic resilience and power, of access to capital, resources, and technology.

This highlights a central point about the entire endeavor of global history: in my view it needs to be told from the point of view of conflict and uneven power. I appreciate Mēhilli’s poking fun at the terms (“unflattening” etc.) that have been gaining currency. The challenge, however, is not simply to “come up with an effective counter-vocabulary.” The problem is not one of language; it is conceptual. And here I confess I am not convinced that it is enough to recover “alternative” forms of “globalization” without weighing the ideological baggage of the term itself. “Globalization” itself is a term from an era of Western triumphalism – the 1990s; as a concept it invites celebrations of contact, interconnections, and exchange (whether cultural or economic) and de-emphasizes conflict and uneven power. But, Mēhilli asks, how can one narrate power without being enthralled by it? How can one address American hegemony without naturalizing it or exaggerating its reach? The point is that while power is generally unevenly distributed, it is rarely – never? – absolute or uncontested. The answer, it

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<sup>64</sup> David Edgerton, *The Rise and Fall of the British Nation: A Twentieth Century History* (London: Penguin, 2018).

<sup>65</sup> As first suggested by Simon Reich, *The Fruits of Fascism: Postwar Prosperity in Historical Perspective* (Ithaca: Cornell University Press, 1990).

<sup>66</sup> Patricia Clavin, “Defining Transnationalism,” *Contemporary European History* 14:4 (2005): 421-439.

<sup>67</sup> See Philippa Hetherington and Glenda Sluga, “Liberal and Illiberal Internationalisms,” *Journal of World History* 31:1 (2020): 1-9.

<sup>68</sup> James Mark, Artemy M. Kalinovsky, and Steffi Marung, eds., *Alternative Globalizations: Eastern Europe and the Postcolonial World* (Bloomington: Indiana University Press, 2020).

seems to me, lies in writing the history of countervailing forces, of which catch-up development is a conspicuous variety. This is the approach that *Forging Global Fordism* tried to take.

Let's use the example suggested by Ironside, Soviet-American economic relations during the interwar period, which she is right to point out should have taken broader space in the book. However, I would respectfully take issue with her characterization of them. Yes, anti-Communist hysterics made themselves heard in Congress and the press in the interwar period. But, as Katherine Siegel has documented, into the 1930s many American businesspeople were quite sanguine about the commercial prospects of Russia, considering it to be what today's investor class would call an exciting "frontier market." Between 1923 and 1930 the volume of Soviet-American trade expanded from \$6 million to nearly \$140 million, the bulk of which consisted of American exports of tractors, locomotives, and machine tools. The launching of the Five-Year Plan only intensified American curiosity. In 1929 the American Chamber of Commerce sponsored a visit of 100 businesspeople to Russia, who toured the country and concluded dozens of contracts along the way. Still in 1930, James D. Mooney, head of General Motors overseas operations and hardly a fellow traveler, called the Soviet Union "a tremendously interesting and potential market."<sup>69</sup> (In *Forging Global Fordism*, Mooney later appears solicitous with Hitler). As the Depression deepened, advocacy for Soviet trade split discernably along interest-group lines. While businesses affected by imports (lumber and mining) fulminated against Soviet dumping and (accurately) accused the Soviets of exploiting forced labor, Midwestern exporters in the capital goods and machine tool sector consistently lobbied in Washington against protectionism and embargos.

How did differential power manifest in this trading relationship? Soviet underdevelopment imposed the fundamental disparity. The Americans had the advanced technology that the Soviets coveted; hence the Soviets needed American goods dearly, but, vice versa, not so much. Throughout the period this was reflected in a trade balance that favored the Americans, as the Soviet Union imported far more from the United States than it sold there. The Soviets could not balance this trade through borrowing since the 1918 repudiation and diplomatic nonrecognition prevented sovereign loans. To make matters worse, price deflation in global commodity markets, amplified by three dramatic collapses (1924, 1929, 1931), sharpened the terms of trade against the Soviet side.

Yet the Soviets were not without weapons of the weak. They milked American concessionaires as they could. They remained intransigent on old sovereign debts but, at least until 1931, they fastidiously repaid new commercial credits, and thus won over many American businesses. For certain key sectors of the American economy, such as Midwestern metalworking industries, the Soviet Union offered a lifeline market after 1929. While Soviet trade policy could play American interests against each other, the Soviet state presented itself as a unified actor to American businesses. The Soviets also had the good fortune of dealing with a US government as yet unconcerned that industrial exports might constitute a national security issue.<sup>70</sup>

I thank Ironside for raising the question of Soviet "autarky," since it allows me to make a broader point on the issue. In substance, I am persuaded by Oscar Sanchez-Sibony (and the work of Michael Dohan on which he builds): the idea that the Bolsheviks retreated from world markets for ideological reasons is misleading.<sup>71</sup> Rather, the global financial crisis of 1931

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<sup>69</sup> Katherine Siegel, *Loans and Legitimacy: The Evolution of Soviet-American Relations, 1919-1933* (Lexington: University Press of Kentucky, 1996), chapters 6-8.

<sup>70</sup> Mario Daniels and John Krige, *Knowledge Regulation and National Security in Postwar America* (Chicago: University of Chicago Press, 2022), chapter 1. The watershed moment in this regard was World War II. As Daniels and Krige document, "national security" was "an intellectual innovation of the 1940s" (*ibid.*, 5).

<sup>71</sup> Oscar Sanchez-Sibony, *Red Globalization The Political Economy of the Soviet Cold War from Stalin to Khrushchev* (New York: Cambridge University Press, 2014); Michael Dohan, "The Economic Origins of Soviet Autarky, 1927/28-1934," *Slavic Review* 35:4 (1976): 603-635.

forced the Soviet Union, as it did all global debtors, to radically cut down on expenditures of foreign exchange. This – not American anti-Communism, not Marxist ideology – explains why Soviet imports from the US collapsed from \$104 million in 1931 to less than \$13 million in 1932. More generally speaking, as I have tried to argue elsewhere, it is incumbent on historians to move beyond the facile metric of autarky versus free trade and consider the complex engagements of states with the world economy.<sup>72</sup> Here, too, our ideas are impoverished by forty years of neoliberal newspeak. Certainly a whole cosmos of political-economic thinker-practitioners across the developing world, from Chinese nationalist Sun Yatsen to Young Turk intellectual Ziya Gökalp to Indian political economist Mahadev Govind Ranade to Russian finance minister Sergei Witte, have not considered protectionism undesirable, but indispensable.<sup>73</sup> What is more, while trade protectionism has often been part of how states engage world markets, it has hardly been the only, or even the most important, strategy: we should give equal consideration to technology policy, various stances towards foreign investment, strategic industrial policy, selective property rights, exchange rate considerations, labor migration, etc. (It bears pointing out in this context that the Soviet state monopoly on foreign trade, which Bolsheviks considered a *sine qua non* for economic development, is rather inadequately captured by either “protectionism” or “autarky.”)

Finally, Fordism and World War II. Oberländer’s reflections allow me to delineate more sharply the perspective that the book gives on why the Soviet war machine managed to outdo its Nazi antagonist during World War II. I worry that Oberländer’s review may exaggerate the book’s contribution to this far from resolved question; it is in fact rather modest. The hypothesis that successful conversion to mass production was at the core of the Soviet armament “miracle” is not new. Mark Harrison arrived at it “by elimination” (by ruling out, that is, other potential explanations such as better military preparedness, a favorable resource environment, or a superior industrial system prior to the war).<sup>74</sup> In his classic *Why the Allies Won*, Richard Overy already concluded that “mass production, borrowed from American practice in the 1920s, developed in the 1930s to accelerate Soviet development, was the key to the wartime production record.”<sup>75</sup> What *Forging Global Fordism* adds is a detailed case-study – Gorky – that reconstructs how this borrowing took place.

Given that the Germans also avidly copied the Americans, however, that only begs the question why Soviet borrowing resulted in a superior war effort. In keeping with our theme, it seems to me the answer will be found in comparative state capacity: how thoroughly and consistently was each state able to mobilize society and economy in service of the war? Any comprehensive answer needs to consider both political-institutional aspects and – here I agree with Oberländer – social and ideological ones.

On the political-institutional side, there has traditionally been a tendency in the literature to credit the irrationality of the Nazi system for the seeming failure of the wartime state to rev up Germany’s formidable industrial machine. Varieties of this thesis alternately blamed an incompetent and internecine bureaucracy; a finicky military, which insisted on finely wrought weaponry and resisted mass production; or a self-lacerating attachment to craft traditions. In *Wages of Destruction*, however, Adam Tooze rejected the “assumption that Nazi ideology and technocratic efficiency were mutually exclusive” and found the Nazi state “an extremely effective mobilizing machine.” Instead, he argued (persuasively, in my view) that no degree of

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<sup>72</sup> Stefan Link, “How Might 21<sup>st</sup>-Century De-Globalization Unfold? Some Historical Reflections,” *New Global Studies* 12:3 (2018): 343-365.

<sup>73</sup> Eric Helleiner, *The Neomercantilists: A Global Intellectual History* (Ithaca: Cornell University Press, 2021).

<sup>74</sup> Mark Harrison, “Industrial Mobilisation for World War II: A German Comparison”, <https://warwick.ac.uk/fac/soc/economics/staff/mharrison/public/opk2000mobilisation.pdf>.

<sup>75</sup> Richard Overy, *Why the Allies Won* (New York and London: W.W. Norton, 1995), 187.



mobilization could overcome the resource constraints – coal, steel, oil, labor – that the Nazi war economy faced given its megalomaniac goals.<sup>76</sup>

This is where *Forging Global Fordism* picks up. My impression, too, was that the Nazi state was in fact quite effective in pressing through its demands – more effective in any case than a blanket suspicion of dysfunction would allow. At the same time, it is clear that the Nazi steering apparatus struggled more against opposition than did its Soviet counterpart. What I found was not so much the “craft-based resistance” mentioned by Lichtenstein but broader conflicts between firms and the state over who got to call the shots in production planning and technology policy: the proprietors and managers of the (often small and medium-sized) firms? Or the ministries and their engineer-enforcers? This dynamic had no obvious parallel in the Soviet Union.

But Oberländer is right that this kind of explanation can only be a partial one (which is, in any case, all that *Forging Global Fordism* attempted). It would need to be complemented by society, ideology, culture. Overy speculated about how dogged patriotism and “a popular culture of achievement,” alongside real threats of privations and a lack of realistic alternatives, motivated workers on the Soviet home front.<sup>77</sup> In their brand-new book on the topic, Wendy Goldman and Donald Filtzer support this view and credit a remarkably effective relationship between the state and Soviet workers. In the factories and in propaganda, the Soviet state gave expression to a compelling goal – beating back the Germans – and directed the collective effort towards it, which ordinary workers put into practice. The result was what Goldman and Filtzer call “a unifying wartime culture.”<sup>78</sup>

But all these pointers are suggestive, not conclusive. A much more fine-grained appreciation of the differences between the Soviet and German war effort is possible, and this would require a fresh round of detailed, empirical, comparative studies: of labor mobilization and its varying degrees of coercion, of how administrative food fights were resolved, of state-enterprise relations, of state-military relations, etc. One might also usefully ask to what extent Nazi Germany lacked “a unifying wartime culture.” This remains a wide field for comparative scholarship.

Let me conclude by returning to the connecting thread, the state. Méhilli asks, “does one better make sense of the story of state-led mass production from the outside looking in, or from the inside out?” It is a rich question. If *Forging Global Fordism* for the most part adopted the view from the outside in, this is not least a reflection of the social-scientific literature I had to rely on. Is it an exaggeration to say that historians have long been suspicious of the state, whether on Marxist or left-Hayekian grounds?<sup>79</sup> But the state is too important to be left to political scientists. We could stand a fresh engagement with the modern state as a consequential historical force, inside and out.

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<sup>76</sup> Tooze, *Wages of Destruction*, quotes 552 and 661.

<sup>77</sup> Overy, *Why the Allies Won*, 188-89.

<sup>78</sup> Wendy Goldman and Donald Filtzer, *Fortress Dark and Stern: The Soviet Home Front During World War II* (Oxford: Oxford University Press, 2021), 294.

<sup>79</sup> James Scott, *Seeing Like a State: How Certain Schemes to Improve the Human Condition Have Failed* (New Haven: Yale University Press, 1998). For suggestive new directions see, for example, Nicolas Barreyre and Claire Mercier, “The Unexceptional State: Rethinking the State in the Nineteenth Century (France, United States),” *American Historical Review* 126:2 (2021): 481-503.