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Special Issue in Honour of Chris Freeman

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War and Transition[1]

In a working paper in 1995[2], and later in a shortened version in his book *As Time Goes By*, Chris Freeman explained periods of economic growth and decline, or long Kondratiev cycles, in terms of the co-evolution of what he called five sub-systems – science, technology, economy, politics, and culture. Each of these subsystems were characterised by what he called 'relative autonomy'. His fundamental insight was about the synchronisation of these sub-systems -the idea, also developed by Perez[3], that periods of 'forging ahead' were periods of harmony among the different subsystems and periods of 'falling behind' or what we might call transitions were periods of disharmony, when the subsystems were 'out of sync'.

My concern is with what he called the 'political' subsystem, which he defined as 'those individuals, institutions and sub-systems of society which are primarily concerned with the governance (legal and political coordination by central, local, or international authorities) of society including military affairs.'[4] I am interested in what determines the political, if you like, the social shaping of governance. This is not just about the state; rather it is about the international regime of regulation. As Freeman points out in his book *As Time Goes By*, for the last two centuries, flows of people, capital, goods and technology have been global. Thus 'globalization' he says, 'itself is not a new phenomenon, what has changed recurrently is the regime that has sought to regulate and to some degree coordinate these movements. Changes in this regime has been have been another of the recurrent features of the long wave. The rules of the game have to be changed periodically to accommodate not only the new technologies but also the changes in the balance of power, in the economic strength of the various contending powers, and in the culture and ideology of the dominant social groups.'[5]

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[1] I am grateful to Stuart Austin for helping with references and formatting.
[2] Chris Freeman, *History, Co-Evolution and Economic Growth* MERIT (University of Limburg, Netherlands, and SPRU, University of Sussex, UK: Working Paper WP-95-76, September 1995)
[3] Carlota Perez, *Technological Revolutions and Financial Capital: The Dynamics of Bubbles and Golden Ages* (Cheltenham; Northampton, Massachusetts: Edward Elgar Pub., 2003)
[4] Freeman, *History, Co-Evolution and Economic Growth*, p.12.
[5] Chris Freeman and Francisco Louçã, *As Time Goes By: From the Industrial Revolutions to the Information Revolution* (Oxford: Oxford University Press, 2002)

Today, we are living through one of those 'out of sync' periods where the 'political', by which I mean the international regime of regulation - the constellation of states, international and regional institutions that shape global regulation - is out of step with far-reaching economic, social, technological and cultural change; or to use the language of long waves, it marks the end of the fourth Kondratiev cycle and the emergence (already from the 1970's) of an ICT based globally interconnected new cycle. So, what determines the 'political'? Can the subsystems be resynchronised?

In this essay, my focus is military affairs. During what might be called the modern period, most of the period analysed by long wave theorists, from the middle of the eighteenth century to the middle of the twentieth century, the international regime of regulation largely consisted of states and empires even though towards the end of the period, new types of international regulatory institutions began to proliferate. States and empires were closely associated with a specific type of modern war, which I call Clausewitzean war. Major bouts of war played a key role in transforming the state and the international order as well as influencing technology and economic development and cultural and political identity. But nowadays, such wars have become too destructive to be fought. Contemporary wars are very different - they tend to fragment or disassemble the state. My question is whether we can shape a different type of international regime that is more conducive to harmonious development in the absence of war. Does the Covid moment offer a possibility for such transformation?

Schot and Kanger suggest that the current moment is more than just a turning point in a techno-economic paradigm or model of development in the history of industrialization.[6] They suggest that the entire history of industrialization, the whole story of long Kondratiev cycles, can be depicted as the end of industrial modernity characterised by increasing reliance on resources, especially fossil fuels; the pivotal importance of science and technology; and a set of shared beliefs including optimism about the human ability to control nature and produce endless prosperity. I agree that this rupture is probably more profound than earlier turning points described by long wave theorists and that this may well have to do with the factors Schot and Kanger outline. But my focus is on a different element of the rupture. I contend that war can no longer play the role that it played in earlier transitions because it no longer takes the form of Clausewitzean war. It does not mean the end of war but it means either that we face endless war and transition or else we go beyond the war-based states and states system. Going beyond war, which may be a necessary condition to

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[6] Johan Schot and Laur Kanger, "Deep Transitions: Emergence, Acceleration, Stabilization and Directionality," *Research Policy* 47, no. 6 (2018)

address our current ills, would imply a shift from International Relations to world politics, from the states system to a form of multi-level governance involving a layering of political institutions.

In what follows, I will start by describing Clausewitzean war and its role in sustaining and transforming the international regime. I will then outline the way that war is changing. And in the final section, I will discuss the evolution of contemporary forms of global, regional and local governance and whether this could supplant the dominant role of states.

War, States and Empires

By Clausewitzean war, I refer to war between two political units, usually organised as states, involving regular military forces, and in which the decisive encounter is battle. These were the wars analysed by Clausewitz in his classic book *On* War, required reading for every military man or woman.[7] They are wars through which states capture territory militarily and consolidate their control over territory. Clausewitz defines such wars as a clash of political wills and his foundational argument is that such wars tend to the extreme as each side tries to win. The politicians want to achieve their political objectives; the generals want to disarm their opponents; and passion and hatred is unleashed among the population.

Clausewitz writing in the early nineteenth century and drawing on his experience of defeat in the Napoleonic Wars, appears to have been greatly influenced by the thinking of his contemporary, Hegel. He described war as the trinity, a synthesis or bringing together of disparate interests, ideas, and emotions – the reason of politicians, the strategizing and luck of the generals, and the mobilisation of the people. He compared the study of war to the study of economics and battle to the act of exchange in the marketplace.

These wars had clear beginnings and endings. Indeed, throughout the modern period, the duration of war declined and periods of peace began to alternate with periods of war whereas earlier, war was more or less continuous. At the same time, such wars grew in scale and intensity characterised by ever higher casualties and culminating in the two twentieth century world wars, which together may have involved between 80 and 100 million deaths including the genocides in both wars. The whole modern period was, of course, characterised by incessant violence in the colonised parts of the world, mainly directed against civilians. but this violence was not counted as war.

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[7] Carl Von Clausewitz, Michael Howard and Peter Paret, *On War* (Princeton: Princeton University Press, 2008)

Clausewitzean war was intrinsically bound up with the modern state, empire, and the states system. 'War made the state and the state made war' says Charles Tilly.[8] Up until the mid-nineteenth century, states were primarily war-making machines. At the end of the seventeenth century, Louis IV was spending 75% of state revenues on the military, Britain was spending a similar amount, while Peter the Great was spending 82%.[9] The table below shows the share of state budgets devoted to the military by Prussia/Germany and by England/ Britain between 1680 and 2010. This is a period where absolute levels of military spending rose, so the declining share reflects a substantial increase in overall state budgets.

Table 1: Military Spending in Prussia/Germany and England/ Britain 1680-2010[10]
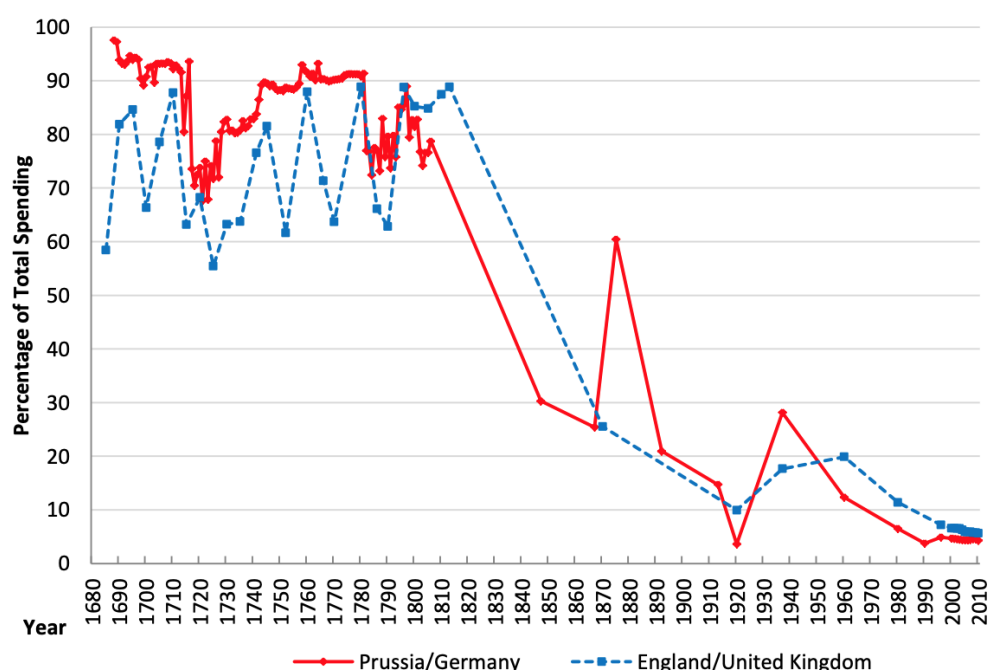
Clausewitzean wars were existential moments, when the war effort required large-scale adaptation involving far-reaching administrative, political, technological, social, cultural and economic changes. Alongside the literature on Kondratiev long cycles is a literature on war cycles. Authors such Quincy Wright, Arnold Toynbee, or George Modelski, identified roughly hundred-year cycles between what

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[8] Charles Tilly, *Coercion, Capital, and European States, AD 990-1990* (Cambridge, Mass., USA: B. Blackwell, 1990)

[9] Geoffrey Parker, *The Military Revolution: Military Innovation and the Rise of the West, 1500-1800* (2nd Ed., Cambridge; New York: Cambridge University Press, 1996), 62; Margaret Macmillan, *War: How Conflict Shaped Us* (London: Profile Books, 2020)

[10] Philipp Krause, *The Origins of Modern Finance Ministries: An Evolutionary Account Based on the History of Britain and Germany* (Working paper 381: Overseas Development Institute, May 2013), 10.

they called major wars or hegemonic wars with lesser wars bunched together every fifty years.[11] While Kondratiev long waves cover the period since the British industrial revolution, these war cycle theories usually start much earlier, most often around 1500.

There has been a lot of debate about the connections between these two types of cycles that address both causes and consequences of such wars.[12] Without entering into the details of these debates, I want to suggest that Clausewitzean wars happen as a consequence of the tensions between the political subsystem and other subsystems and that the effort required to fight such wars has involved both large-scale destruction and dramatic resynchronisation. Such wars draw on innovations in the other subsystems and dramatically speed up the application of these innovations to the political subsystem thereby potentially restoring synchronisation. Or to put it another way, each of the subsystems described by Chris Freeman have their own mechanisms for change. Within the framework of capitalism, the market is the main mechanism for change in the economic subsystem bringing about more or less continuous change. Openness and debate might be viewed as the main mechanism for change in science or culture. In the case of the political subsystem, change might come about through peaceful public pressure, generally rather slowly, producing mismatches between the economic and political subsystems, or dramatically through revolution and war, providing the transformation required to bring politics and economics into line.

 As Tilly points out, revolutions have tended to be associated with war. They have often been triggered by demands for increased military spending or conscription in a context of economic, social and political inequality and hardship, or fears about possible military incursions. And, at the same time, war has often provided a mechanism for diverting revolutionary demands through what we might equate with Clausewitz's notion of the Trinity - bringing people together in the face of an enemy.

The Treaty of Westphalia in 1648 that ended the Thirty Years' War that engulfed all of Europe is often considered to mark the beginning of the European states system. The English Civil War (1646-8,) sometimes known as the English Revolution, has to be understood as part of the Thirty Years' War. Chris Freeman points to the importance of the English Civil War in laying the basis for the industrial revolution, mainly as a consequence of the political changes that were brought about. In addition, Cromwell's New Model Army is often considered the forerunner of the kind of regular

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[11] Arnold J. Toynbee, Edward D. Myers and the Royal Institute of International Affairs, *A Study of History* (London; New York: Oxford University Press, 1934); Quincy Wright, *A Study of War* (Chicago, Ill.: University of Chicago Press, 1942); George Modelski, *Long Cycles in World Politics* (Basingstoke: Macmillan, 1987)

[12] Joshua S. Goldstein, *Long Cycles: Prosperity and War in the Modern Age* (New Haven; London: Yale University Press, 1988); Mario Coccia, "A Theory of the General Causes of Long Waves: War, General Purpose Technologies, and Economic Change", *Technological Forecasting & Social Change*, no. 128 (2018)

forces that characterise Clausewitzean war. While it is possible to identify innovations that were the consequence of wars in the seventeenth and eighteenth centuries, for example, the establishment of the Treasury in the 1690s to maintain control of military spending and the Bank of England to regularise borrowing, the connection, if it exists, between war cycles and long waves, can be said to have begun with the Napoleonic wars.

Broadly speaking, it is possible to draw up four broad interlinked categories of change that in the last two centuries have been brought about by war, as illustrated in the table below.

Table 2 Clausewitzean War and Change.

Clausewitzean War	State Structures	Technology and Economy	International Arrangements	Political and Cultural identity
Napoleonic Wars 1795-1815	Administrative reforms, centralisation, direct rule	Levee en Masse paralleling factory system Cotton trade boosted by demand for uniforms. Expansion of British exports to Europe.	Concert of Europe British financial and global hegemony. Consolidation of British Empire.	Emergence of national identities
Mid-century wars: Crimean War 1853-56 American Civil War 1861-63 Austro-Prussian War 1866 Franco-Prussian War 1870-71	Abolition of slavery in US and serfdom in Hapsburg empire. Unification of Germany and Italy. Extension of political rights	Important role of railways and telegraph. Introduction of military planning and logistics. Boost to railway building and trade.	Bismarckian Concert of Europe; militarised alliances, scramble for colonies. Rise of Germany and United States as challengers to Britain.	Rise of nationalism
World Wars I: 1914-18 II: 1939-45	Increase in economic role of state; redistribution of income; growth of welfare	Mass production of automobiles and aircraft Intensive use of oil Invention of radar, computers, and nuclear power.	Establishment of League of Nations and United Nations; rise of military blocs; US hegemony; decolonisation and emergence of 'third world'.	Rise of ideological identity: democratic versus totalitarian or socialist versus capitalist

The first category is administrative and political reforms to the structure of the state, both as a way of increasing revenue so as to finance the war and as a way of mobilising public support. All these wars involved a jump in the scale of the state. Peacock and Wiseman famously defined what they called the 'displacement effect' in the history of UK public expenditure showing that public expenditure expands in wartime and never returns to its pre-war level.[13] Wars also involved the consolidation of territorial control through the disarmament of the civilian population; this was achieved, according to Tilly, throughout the whole period through many small steps including 'general seizures of weapons at the end of rebellions, prohibitions on duels, control over the production of weapons, introduction of licensing for private arms, restrictions on public displays of armed force'[14] ; alongside the process of disarmament went the introduction of routine policing and security agreements between municipalities and the national state.

Each set of wars also produced a set of specific state reforms. In the aftermath of the French revolution, sweeping administrative reforms were undertaken, along with the introduction of new legal codes, involving the abolition of feudalism, the replacement of indirect rule by direct rule and the centralisation of administration. These reforms were introduced in all over Europe both in reaction to Napoleon or as a consequence of conquest. Even though Napoleon was eventually defeated and forced to withdraw from the territories he conquered, 'these changes' says Hobsbawm 'proved far less reversible than the shifting of frontiers'.[15]

The wars of the mid-nineteenth century were preceded by the 1848 revolutions. Even though the revolutions failed, many of the reforms that were demanded were introduced as a consequence of the wars. These changes brought about by these wars included the abolition of slavery in the United States, the abolition of serfdom in the Hapsburg empire, the unification of Germany and Italy, and the widespread introduction of elections, albeit on the basis of limited suffrage. And, of course, the two world wars hugely expanded the role of the state, increased universal suffrage, and legitimated the idea of social responsibility for citizens in the form of welfare and redistribution.

Secondly, war speeded up military technological change that both drew on and created a spill over for technological change in the overall economy. The most significant innovation in the Napoleonic wars was the levee en masse, the introduction of national conscription and the use of massed forces. The introduction of procurement, especially uniforms, greatly stimulated trade in both

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[13] Alan T. Peacock, Jack Wiseman and Jindrich Veverka, *The Growth of Public Expenditure in the United Kingdom*, General Series (National Bureau of Economic Research); No.72 (Princeton: London: Princeton University Press; Oxford University Press, 1961)
[14] Tilly, *Coercion, Capital, and European States*, 115.
[15] Eric Hobsbawm, *Age of Revolution 1789-1848* (Weidenfeld and Nicholson: London, 1973), 115.

textiles and iron, augmented in the case of Britain by new colonial acquisitions during the war both from France and from Spain and Portugal, Chris Freeman quotes Paul Kennedy on the expansion of overseas markets as a consequence of the war and the stimulus this provided to 'shipping, commodity dealing, bill-clearing and banking activities'.[16] The introduction of railways and the use of the telegraph were key for the mid-century wars; these innovations underpinned the efficiency of planning and logistics displayed by Prussian forces. And finally, both the United States and the Soviet Union hugely expanded mass production during the two world wars, as well as important inventions such as nuclear power, radar and the computer.

Thirdly, war determined international arrangements, including establishing a hegemonic power and international hierarchy, international rules and relations, and the division of empire. Modelski's theory of war cycles is a theory of international regimes. Each of the major hegemonic wars, he says, was followed by a peace settlement that institutionalised the leading power– Portugal in the sixteenth century, the United Provinces in the seventeenth century, Britain in the eighteenth and nineteenth centuries and the United States in the twentieth century. And each of these cycles, according to Modelski, was associated with institutional innovations: global exploration and discovery under Portugal; global trade and the establishment of big trading companies such as the Dutch East Indies Company during the Dutch dominated cycle; the idea of a European balance of power, slave trade, and command of the sea in the eighteenth century; and the expansion of empire, the concert of Europe, free trade, the gold standard, and the abolition of slavery during the nineteenth century. The innovations of the American era include the establishment of the UN, decolonisation, the Cold War, and the spread of multinational corporations.[17]

Finally, political identities have been forged through war. Benedict Anderson makes the point that novels and newspapers allowed individuals to imagine themselves as part of a wider community that read the same newspapers and novels rather than being tied to localities.[18] The first newspapers were published in the English civil wars and war was always a moment for the expansion in the provision of news and in the collective idea of a nation as opposed to other nations. Whereas in the early nineteenth century the idea of the nation was pitted against absolute rule and was seen as a vehicle for democracy and industrialisation, in the late nineteenth century more romantic culturalist notions of nationalism emerged pitted against other nationalisms in war. Linda Colley had shown

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[16] Quoted in Freeman, *As Time Goes By*, 182.
[17] Modelski, *Long Cycles in World* Politics, ch. 4.
[18] Benedict R. O'G. Anderson, *Imagined Communities: Reflections on the Origin and Spread of Nationalism* (London: Verso: NLB, 1983)

how the idea of Britain was forged in wars against France.[19] The Second World War introduced ideological identities as well as national identities – the war was seen as a struggle for freedom and/or socialism against fascism and that ideological struggle was carried through to the Cold War.

These changes are neither inevitable nor easy. Wars are learning processes; they involve tragic mistakes, that may or may not be eventually rectified, and costly experiments that may or may not work. Thus, the Crimean War failed to make proper use of the new technologies of railways and telegraph as well as new types of explosives and indeed became a symbol of deadly mismanagement and incompetence, most famously in the Charge of the Light of the Brigade. But the wars of the 1860s pioneered Prussian efficiency in rapid mobilisation, communication, and logistics, as well as new types of weapons such as the machine gun, armour piercing artillery, and explosives.[20] Similarly, although tanks appeared towards the end of the First World War and although some changes came about as a consequence of the war, for most of the war, the use of new weapons like the machine gun were stuck in nineteenth century tactics leading to the endless horror of stalemated trench warfare; combined with conservatism after the war such as the return to the gold standard or the financial punishment of Germany, this can be said to have led to the rise of fascist ideologies and the inexorable outbreak of the Second World War.[21] It was only during the Second World War that the social and technological innovations needed to defeat Germany were introduced thereby laying the basis for post-war prosperity.

In between these wars or groups of wars, regular armed forces and their associated requirements were maintained. It was William of Orange, in the late seventeenth century, who introduced drill, training and exercises that made it possible to occupy the troops in periods of peace-time. Such activities tended to be based on the previous experience of war both because of organisational resistance to change in the absence of an existential threat and because the enactment of war was a reminder of past victories underpinning the international hierarchy. This type of imaginary war was at its most visible during the Cold War period when the concept of deterrence was expressed through the continuous acquisition of armaments, military exercises, proxy wars in the so-called 'third world' and hostile rhetoric. The imaginary war took the form of an imagined clash between the United States and the Soviet Union modelled on the experience of World War II.[22]

It can be argued that the very conservatism of the military in the interim between Clausewitzean wars may have had the opposite effect on the economy as in wartime. There is certainly evidence

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[19] Linda Colley, *Britons: Forging the Nation, 1707-1837* (New Haven, CT, USA: Yale University Press, 1992)
[20] Eric Hobsbawm, *Age of Capital 1848-1875* (Weidenfeld and Nicholson: London, 1977)
[21] John Ellis, *The Social History of the Machine Gun* (Johns Hopkins, 1993)
[22] Mary Kaldor, *The Imaginary War* (Blackwell*: *Oxford, 1990)

that Britain's naval shipbuilding programme in the late nineteenth century, a reminder of the glittering victory at the Battle of Trafalgar, contributed to the 'falling behind' of Britain and the same is true of the burden of the military industrial complex in both the United States and the Soviet Union towards the end of the Cold War.[23] Freeman himself talks about the influence of war as both retarding and facilitating. It is not just the economic burden of the military sector. It is also the way that the military sector contributes to the rigidification of state structures (the 'deep' state), to beliefs in the continued relevance of a specific international hierarchy, and to the reproduction of increasingly anachronistic identities.

Thus, a possible explanation for the connection between Kondratiev cycles and war cycles has to do with the contrast between the more or less continuous pace of economic innovation and the discontinuous nature of political innovation. Periods of war are periods of dramatic political innovation that speeds up economic innovation. Periods of imaginary war are periods of political inflexibility slowing down economic change and contributing to the social, economic and political tension that leads to revolution and war.

The Changing Nature of Warfare

In the post-Cold War period, military budgets fell initially but increased again after a ten-year period. What we can observe is three types of warfare; a continuation of the imaginary war as a geo-political contest between the 'great powers' (the US, Russia, China, and also Turkey, Iran, Saudi Arabia and India); the emergence of the 'war on terror' starting with the US invasions of Afghanistan and Iraq and morphing into a long-distance campaign of targeted assassination using drones; and the spread of what I call 'new wars' in the Balkans, Middle East and Africa. None of these wars could be described as Clausewitzean. They are framed as political contests but, in practice, they are better described as a mutual enterprise or a social condition. Battle is rare but violence, at least in the case of the War on Terror and the 'new wars' is more or less continuous.

The imaginary war helps to legitimise authoritarian leaders on all sides and to justify the continued acquisition of sophisticated armaments. The drone campaign, arguably, produces more terrorists than it kills and provides the conditions for reproducing the infrastructure of the war on terror – private security contractors, intelligence complexes, special forces and drone manufacture. And the new wars involve a myriad of armed groups who gain more from violence itself than from winning or losing. They gain politically because violence and fear tend to nurture extremist ideologies based on

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[23] Mary Kaldor, *The Baroque Arsenal* (Andre Deutsch: London, 1982)

identity (nationalism or religious fundamentalism). And they gain economically from loot, pillage, kidnapping, setting up checkpoints, smuggling, or 'taxing' humanitarian assistance.

In contrast to Clausewitzean wars, these are wars of state 'unbuilding'. The Imaginary War and the War on Terror do not involve increased taxation and they risk very few Western lives. The war on terror is associated with privatisation of the military sector. It can be argued that they represent a continued economic burden and an obstacle to the kind of changes that might be required to address the sort of tensions characteristic of this transition – climate change action for example or redistribution. The new wars lead to the fragmentation and disassembly of the state. If Clauswitzean wars were centralising and autarkic and mobilised the population in the war effort, the new wars are globalised and decentralised.

Indeed, the new wars could be described as an extreme form of neo-liberalism. Typically, they take place in authoritarian societies opening up to the world as a consequence of economic and sometimes political liberalisation. Typically, a combination of trade and capital liberalisation, privatisation , and macro-economic stabilisation has already led to reductions in public spending including social services like health and education or food and energy subsidies, increased unemployment especially in rural areas, and the emergence of a 'crony capitalist' class owning the newly privatised state sector or under contract to the state. The war speeds up these processes. GDP falls dramatically as does public spending and tax revenue. Unemployment increases. All this is often compounded by sanctions. Violence is financed by a variety of war-related revenues; external support; loot, pillage, etc.; and a range of criminal activities. Poor unemployed young men have little choice but to join a militia or a criminal gang. New war-related military/criminal elites come into being with a vested interest in continued disorder.[24]

What are the implications of these wars for the four categories of change described above?

1) All of these wars are associated with a reduction in the scale and size of the state. The imaginary war and the war on terror are associated with austerity policies and privatisation. The new wars involve the multiplication of territorial fiefdoms. Both the new wars and the war on terror weaken the international rule of law and undermine citizenship rights.

2) All three types of warfare make use of new technology. The imaginary war tends to incorporate new technology into existing artefacts and structures, making weapons systems

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[24] For a more detailed exposition of the new war economy, see Mary Kaldor, *New and Old Wars: Organised Violence in a Global Era*, 3rd ed. (Polity Press: Cambridge, 2012), chapter 4; Michael C. Pugh, Neil Cooper and Jonathan Goodhand, *War Economies in a Regional Context: Challenges of Transformation*, Project of the International Peace Academy (Boulder, Co.: Lynne Rienner Publishers, 2004)

more complex and expensive, what I call 'baroque technology'. In so far as the imaginary war overlaps with new wars in the case of what the Russians call 'non-linear' war they also make use of what they call 'political technology' – cyber warfare and social media propaganda. By contrast, the 'new wars' could be said to be characterised by 'vernacular' technology. The various networks make use of social media for propaganda and to spread fear; they often have Facebook sites. A typical weapon of the new wars is the Improvised Explosive Device (IED); while they make use of every day ingredients such as detergents and fertilisers they are often combined with more sophisticated triggering mechanisms such as mobile phones.[25] One disturbing aspect of the new wars is the perceived increased utility of chemical weapons, as in Syria or in the case of the Novichoks for assassination. The war on terror has, of course, become an alarming technology led form of warfare.

3) All three types of wars call into question existing global arrangements but represent different directions of change. The imaginary war challenges the multilateral system; it signals a return to unilateralism or coalitions of the willing. The 'new wars' represent the 'dark side' of globalisation -illicit financial flows, forced migration and smuggling routes, MacMafia type criminal networks, extremist transnational identities, and weakening of international law. The war on terror calls into question state boundaries and constitutes a global manhunt.

4) Finally, all three types of warfare have implications for identity. The imaginary war is an attempt to reconstruct national identities. The War on terror is about a civilisational clash between the West and Islam. And the 'new wars' produce ever more fragmented sectarian or ethnic identities.

Like earlier wars, these wars can be interpreted as the outcome of the mismatch between the political subsystem (caught up in an earlier cycle) and the broader changes occurring in the other subsystems. Market fundamentalism, as in earlier periods, is a response to this mismatch. In the past, the tensions produced by market fundamentalism contributed to the outbreak of Clausewitzean War. But, unlike Clausewitzean wars, contemporary wars do not restore synchronisation. To be sure, they contribute to the destruction of institutions that are 'out of sync'; the war on terror and the new wars intensify both globalisation and the fragmentation of states; they also make use of new technologies in negative ways. Unlike, Clausewitzean wars, which were decisive, and which were ended by those who innovated most successfully, all of these wars tend to

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[25] James Revill, *Improvised Explosive Devices: The Paradigmatic Weapon of New Wars* (Switzerland: Palgrave Macmillan, 2016)

persistence. They are very difficult to end because the participants have a stake in continued violence. They are 'forever wars'.

Towards Multi-Level Governance

The state started out as a killing apparatus but destructive capacity required productive capacity. From the mid-nineteenth century onwards, we can observe a big expansion of non-military activities and what might be described as the civilianisation of government. According to Tilly, 'European states began to monitor industrial conflict and working conditions, install and regulate national systems of education, organise aid to the poor and the disabled, build and maintain communications lines, impose for the benefit of home industries, and the thousand other activities Europeans now take for granted, as attributes of state power.'[26]

Alongside this development came the thickening of transnational governance involving, broadly speaking three main components. First of all, the settlements that followed each war or set of wars established a machinery for preserving the peace. The Vienna Treaty of 1815 established what was known as the Concert of Europe among the four great powers -Russia, Austria, Prussia, and Britain – later joined by France. It was described by Friedrich von Genz, the advisor to Metternich as 'a phenomenon without precedent in the world – a principle of general union, uniting all the states collectively with a federative bond, under the guidance of the five prinicipal powers.'[27] The Concert was a conservative institution designed to maintain order and hierarchy and hugely concerned with preventing revolution. What became known as the 'public system' of Europe involved a 'humanisation' of relations between European states and at the same time a legitimation of the brutal scramble for colonies . The First World War was followed by the establishment of the League of Nations and the Second World War by the United Nations family as well as regional organisations like the European Union, the Organisation of American States, and later ASEAN and the AU, as well as smaller regional organisations. In the post-1989 period, a new discourse of humanitarianism and human rights was associated with a big expansion of multilateral operations designed to resolve and/or mitigate the consequences of new wars, as well as a new emphasis on international law and the establishment of the International Criminal Court. While the return of geo-politics and the rise of the War on Terror after 9/11 marginalised these activities, nevertheless they remain significant

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[26] Tilly, *Coercion, Capital, and European States*, 115.
[27] Mark Mazower, *Governing the World: The History of an Idea* (New York: Penguin Press, 2012), 3.

and there is evidence that during the 1990s, there was some success in freezing conflicts and thereby mitigating some of the worst effects.[28]

The second element has been the formation of transnational associations. The first peace groups were founded after the Napoleonic Wars and several international peace congresses were held in the middle of the century. The most famous examples of international associations are probably the Anti-Slavery Society (1839) and the International Red Cross (1864). By 1874, there were 32 registered organisations of this type and this had increased to 1083 by 1914 although not all survived.[29] They played a key role in setting up international institutions, during this period, many of which began as non-governmental institutions. [30] They also influenced treaty making, particularly in the case of anti-slavery and many of the techniques that NGOs use today were pioneered during this period, particularly parallel fora at inter-governmental conferences. The Hague Peace Conferences of 1899 and 1907 were particularly significant in this respect where NGOs organised parallel sessions and even published an unofficial newspaper.[31]

The term non-governmental organisations (NGOs) was first mentioned in Article 71 of the UN Charter. In the post second world war, and especially after 1989, international NGOs (INGOs) have grown exponentially. During the 1990s, registered INGOS increased by one third, from 10,292 to 13,206 and their memberships increased from 155,000 to 263,000 over the same period. [32] Some like Oxfam, Human Rights Watch or Médecins Sans Frontières have become global players. They have become active participants in international negotiations or treaty-making on climate-change, for example, or the International Criminal Court.

Thirdly, the global spread of capitalism has required the spread of a regulatory framework involving rules, standards, coordinating and facilitating mechanisms. The International Telegraph Union, for example, was created early in 1865 'in order to overcome the delays that had been caused by the

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[28] Human Security Centre, *Human Security Report 2005: War and Peace in the 21st Century* (New York: Published for the Human Security Center, University of British Columbia, Canada [by] Oxford University Press, 2005)

[29] Charles Chatfield, "Inter-governmental and Non-Governmental Associations to 1945", in *Transnational Social Movements and Global Politics: Solidarity beyond the State*, ed. Jackie Smith, Charles Chatfield and Ron Pagnucco (Syracuse, N.Y.: Syracuse University Press, 1997)

[30] This for example, the International Bureau of Weights and Measures (1875), the International Council for the Exploration of the Sea (1902) or the International Meteorological Office (1891) all began as non-governmental institutions. See Steve Charnowitz, "Two Centuries of Participation: NGOs and International Governance.", *Michigan Journal of International Law* 18, no. 2 (1997): 183-286.

[31] At the 1907 Peace Conference, Baroness Bertha von Suttner welcomed conference delegates and voluntary associations to tea and lectures every afternoon. See Charnowitz, "Two Centuries of Participation", 197.

[32] See Helmut K. Anheier, Marlies Glasius and Mary Kaldor, *Global Civil Society 2001* (Oxford University Press, 2001)

need to print out telegraph messages and walk them over to the other side.'[33] Such institutions proliferated in the late nineteenth century including the Universal Postal Union (1875), the International Meteorological Organisation (1878), or the International Signals Code (1871). The process of organisational interconnectedness speeded up again after the Second World War especially within the context of regional organisations like the European Union. These organisations involve a myriad of actors including corporations, associations so that today, most states are 'embedded in and constrained by regulatory actors and activities. State agencies negotiate with non-profit associations, international organizations, standard setters and corporate actors. Interactions between state and non-state sectors are complex, dense and multi-directional.[34]

What we can observe over the period as a whole is a long-term shift from an international system composed of what be described as unilateralist war-making states and empires towards a dense and complex global system composed of multilateralist rule-making states together with an array of institutions and associations. It is a hugely unequal system with weak mechanisms for accountability but it is a system increasingly based on rules rather than military power and there are possibilities for greater civic involvement especially at regional levels.

The reversion to geo-politics and the rise of authoritarian nationalism that has happened since 2001 represent a setback in this evolution. These phenomena can be interpreted in terms of what Gramsci called 'morbid symptoms' that arise when 'the old is dying and the new cannot be born.' These regressive movements further widen the gap between the political subsystem and the other sub systems – contributing to dangerous tensions that are rather similar to what can identify in 'new war' settings.

Transnational pressure from social movements and liberal governments and institutions for climate change action, for example, or social and racial justice come up against the barriers posed by these regressive movements as happened in similar historical periods. It appear that it is primarily in the context of existential moments that these barriers may be overcome; change happens when risky political experiments are initiated and when some seem to 'work' in the sense that they produce the space for further change in a more harmonious direction and reinforce the popular demands. If Clausewitzean war is ruled out and if contemporary wars make things worse, does the current pandemic represent the kind of existential threat that might open up the potential for this kind of experimentation? Millions have already died; in Britain four times as many people have died than

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[33] Mazower, *Governing the World*, 102.
[34] Marie- Laure Djelic and Kerstin Sahlin-Andersson Djelic, "Introduction", in *Transnational Governance: Institutional Dynamics of Regulation*, ed. Djelic and Sahlin-Andersson (Cambridge: Cambridge University Press, 2008), 2-3.

were killed in the blitz in World War II. It is probably, moreover, still early days – we may be going through a process of experimentation that could last years.

How might the current pandemic affect the four categories of change described above?

1) In terms of the role of the state, Covid has already had a 'displacement' effect. It has led to a big increase in public spending. So far this has been financed by borrowing at national, European, and global levels. So, the question arises about whether it is sustainable. Can we envisage new sources of revenue for multi-level governance? There is discussion about taxing the big multinational corporations, closing down tax havens for example, and about carbon taxes, as well as the issue of debt cancellation for poor countries. There is also consideration of a shift of priorities from military spending and material consumption, typical of the fourth Kondratiev, to health, education, social justice and the environment. Covid may have weakened authoritarian leaders, who have been, with the exception of China, the least responsive to the pandemic. In some places, such as the UK, weaknesses in the response to Covid has revealed a disaffection with crony capitalism and the contracting out culture closely associated with contemporary authoritarianism.

2) The pandemic has hugely speeded up the diffusion of digital technology – the role of the Internet; meeting and teaching platforms like zoom and teams: online shopping and viewing. It has also involved an acceleration of the life sciences in the search for treatments and vaccinations.

3) The initial response to Covid has been national, with emphasis on the closure of borders, national healthcare systems, as well as competition for vaccines and treatments. But awareness of the importance of local, regional and global responses is growing. The disease cannot be contained nationally – without a global response, there is a big risk of the development of vaccine resistant variants somewhere or other. Institutions like the World Health Organisation, although criticised for its early response, will inevitably have to pay a key role. In the short-term, the European Union has been criticised for the slowness of its collective approach to vaccination and the insufficiency of the Recovery Fund. But the importance of the inclusion of smaller and poorer nations is likely to be recognised in the medium-term as well as the scale of the Recovery Fund.
Finally, the response to Covid has to be local as well as regional and global. Community approaches, especially test and trace systems need to be locally based. In several European countries it is possible to note a new assertiveness of mayors or regional leaders.

4) Finally, Covid has implications for identity. An effective global and regional approach could contribute to the construction of overlapping identities in place of a national emphasis. Very

significant is the way in which the heroes of the current crisis are health and care workers rather than soldiers, or where soldiers are used, it is in support of health and care workers. This could be a significant shift from idea of war as the determinant of international order to the idea that emergency services, including health and care workers, fire fighters, flood maintenance personnel, as well as soldiers and police uphold a rights-based rule-making system. In other words, Covid weakens the link between political identity and militarism.

Covid is intrinsically linked to other global challenges including climate change and 'new wars; 'new war' areas are least able to contain the transmission of Covid both because of weak healthcare systems and because of concentrations of vulnerable people in refugee camps or prisons. A strengethening of multilateral operations in 'new war' contexts is a corollary of Covid but such operations need to be redesigned and situated within a global framework. There need to be measures to counter the 'dark' side of globalisation, to make use of fragmentation to promote political devolution to local levels, and to re-orient the dangerous directions of technology. All of this is part of the far-reaching adaptation required to recalibrate the sub systems in a more harmonious way.

Conclusion

In this article, I have tried to elucidate the role that war has played as part of one of the five 'relatively autonomous' subsystems, which, according to Freeman, help to explain long cycles of prosperity and decline. I argued that classic Clausewitzean wars have been existential moments that, after experimentation, brought about dramatic changes in the political subsystem. I identified four types of changes: reform of the state, the invention and diffusion of new technologies, the reordering of the international system, and the construction of political identity. Periods of prosperity tend to follow these momentous changes. In between these wars, which have occurred about every fifty years, the military sector tends to be rather conservative, acting out in training and exercises an imaginary war based on the past; the burden of the military sector may come to act as a brake on prosperity and contribute to periods to decline, laying the basis for social tension that contributes to the next war.

I have argued that this story, however imperfect as an analysis of the modern period, is coming to end because of the change in the nature of warfare. Contemporary warfare involves the continuation of imaginary war, the tech-based war on terror, and what I call 'new wars'. All these types of wars are state unbuilding and they are all very difficult to end. One prognosis for the future

is a long disintegrative period, in which states fragment and engage in low-level persistent violence often around fragmented identity politics. I end by asking whether the global pandemic might represent an existential moment similar to Clausewitzean wars in the past in which a process of experimentation could eventually lead to a multilevel system of regulation, in which states are transformed form unilateralist war-making institutions to multilateralist rule -making nodes in a multi-level form of governance. This would also require a set of multilateral measures to counter the new types of warfare. All of this, of course, raises many further questions about accountability and democracy and how such change can be promoted.

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