Uneven and combined development

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Acknowledgements

The authors wish to acknowledge the support of the National Natural Sciences Foundation of China (NSFC Grant number 41530751) and a Leverhulme Emeritus Fellowship.

The authors wish to thank a referee for his/her detailed and extremely valuable comments on an earlier version of this paper and the Editors for their guidance.
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Abstract

The concept of uneven and combined development (U&CD) interprets dynamic historical change and comparative geographical differentiation in terms of the co-existence of tendencies towards differentiation and equalization of the conditions of production, consumption, distribution and exchange, deriving from capital accumulation and political multiplicity. U&CD entails a conception of the global system as a constellation of interdependent, national institutional configurations and interests that shape international/national/regional trends. To explain geographies of industrialization and urbanization and current trends towards a pluri-centric world, U&CD requires however a specification of the underlying causal mechanisms, examined in economic geography, international relations and developmental state theories.

Keywords: Uneven and combined development, Social and spatial division of labour, governance capacity, political multiplicity, globalization
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The crisis of neo-liberal globalization, the progressive slowdown of the economies of the North and of Japan that led global economic growth up to the 1970s, the end of the third wave of multiparty representative democracy, the rise of new powers with distinctive social models and the erosion of a unipolar world and Western global leadership are a set of interconnected trends. These trends are fundamentally changing the macro-geographies (Michael Dunford et al., 2016; Jamie Peck, 2016) of the world and require a rethinking of the ideas that are used to understand international, national, regional and urban development.

A central argument of this article is that these macro-geographies are consequences of uneven and combined development (U&CD), making U&CD an important overarching concept. U&CD derives from geographically and historically differentiated processes of industrialization and urbanization and the underlying mechanisms through which infrastructures, jobs, people, income and wealth are concentrated in hierarchical systems of interconnected city-regions. These underlying mechanisms have been examined in numerous studies of modernization, dependency, modes of production, world systems, developmental states and economic/urban and regional geography (for recent accounts see Haggard, 2015; Makki, 2015; Sheppard, 2016).

Analysis of these processes, it will be argued, should draw on a twofold conception of the evolving global system as (1) a set of processes of capital accumulation, unfolding at a variety of scales and (2) an assemblage/constellation of interacting and asymmetrically integrated/inter-connected national institutional configurations and interests that shape economic trends and can result in ‘tectonic spatial shifts’ (see also Aoyama, 2016) These economic, political and cultural drivers are associated with specific mechanisms of differentiation and equalization of the conditions of production, distribution, consumption and exchange (see also Smith, 1984), whose
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Recently there has been a renewal of interest in several fields of research in U&CD. The concept/law was introduced by Trotsky (1928) who used it to explain the ‘peculiarities’ of the economic, political and cultural development of Russia before the 1917 Bolshevik revolution (Trotsky, 1930). More specifically, it served, first, to criticise stages views of historical
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Stage theories claimed that less developed countries should undergo a ‘democratic’ revolution and, only after a phase of capitalist development, a socialist revolution, and that less developed countries will repeat completely the processes of industrialization and modernization of advanced countries. Second, it helped explain Tsarist Russia’s peculiar combination of state-promoted modern industry, a small industrial working class and a vast rural peasantry.

For Trotsky Russian backwardness was an expression of the law of unevenness, which he later argued governed the whole history of mankind, explaining ‘the extreme diversity in the levels attained, and the extraordinary unevenness in the rate of development of the different sections of mankind during the various epochs’ (Trotsky, 1928, Part 1(4)).

Trotsky argued however that there is a related law of combined development. ‘Capitalism finds various sections of mankind at different stages of development, each with its profound internal contradictions. … In contrast to the economic systems which preceded it, capitalism inherently and constantly aims at economic expansion … and equalizes the economic and cultural levels of the most progressive and the most backward countries’. Backward countries were compelled to follow after advanced countries (‘the whip of external necessity’), but do not ‘take things in the same order. The privilege of historic backwardness … compels the adoption of whatever is ready in advance of any specified date, skipping a whole series of intermediate stages’. The outcome of this dialectic of compulsion and privilege was ‘the drawing together of different stages of the journey, a combination of the separate steps, an amalgam of archaic with contemporary forms’ (Trotsky, 1928, Part 1(4)).

The most striking recent recovery of the concept of U&CD has occurred in the field of international relations where it serves as a foundation stone of geopolitical economy, non-realist accounts of the existence of a multiplicity of states and socially-grounded interpretations of state
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 systems, contemporary imperialism and geopolitical and geo-economic conflict/co-operation
(see Allinson & Anievas, 2009; Callinicos, 2009; Cooper, 2013; Desai, 2015; Harvey, 2003;
Kiely, 2012; J. Rosenberg, 2010)

This research is important in that it draws attention to the causal role of state actions and
inter-state relations and counters the exaggerations of 1990s theories of globalization which
suggested that increasing interconnectedness was leading to the replacement of the sovereign
state system by a multi-layered, multilateral system of 'global governance'.

More fundamentally, the concept of development as uneven/differentiated and
intrinsically interactive grounds world history, world geography and international relations in
multiple social structures and agency, and grounds the development of individual societies not in
their internal structures and agents alone but also in their interconnectedness with other societies.
U&CD accordingly undermines traditional social theories and Euro-centric concepts of
development and modernity, as it recognises the role of external and non-western sources of
internal change (Anievas & Matin, 2016). In the words of Rosenberg: ‘all societies coexist with
and interact with others, and … this [interaction] super-adds a lateral field of causality over and
above the ‘domestic’ determinations arising from each and every one of the participant societies
(Callinicos & Rosenberg, 2008: 88)

Rosenberg has argued that U&CD is an abstract universal category relating to the
differentiated peopling of the earth and exploitation of first and second nature, the interaction of
different communities and political multiplicity. Critics argue that conceptualizations of U&CD
should be more sensitive to the specific mechanisms associated with different types of social
order (see Davidson, 2009; Kiely, 2012), or that the distinct causal repercussions of inter-societal
competition are only fully activated under capitalism (Allinson & Anievas, 2009).
In urban and regional research uneven development received sustained attention in the late 1970s and 1980s (M. Dunford, 1979; M. F. Dunford & Perrons, 1983; Harvey, 1982; Lipietz, 1977; Massey, 1984; Smith, 1984). Recently, the concept of ‘combined and uneven development’ (sic) has re-emerged (Hadjimichalis & Hudson, 2014; Hudson, 2016; Jamie Peck, 2017; Rowthorn, 2010). The early analyses of the uneven production of nature and industrial and urban space have however much to learn from subsequent urban and regional research and especially from the international relations tradition: although spatial interdependence was highlighted, development was seen as combined and uneven rather than vice-versa, and these studies failed to appreciate the significance of political multiplicity.

For Trotsky, combined ‘grows out of the first [uneven development] and completes it’. (Trotsky, cited in Davidson, 2012, 295). As Anievas and Nisancioglu (2015, 45) argue, ‘combination … refers to the ways in which the internal relations of any given society are determined by their interactive relations with other developmentally differentiated societies’. In polities that are less developed these interactions are sources of constraint and innovation/creativity. Material and non-material aspects of more advanced societies are grafted on and combined, in the absence of the social relations from which they emerged, with internal social relations to produce and reproduce in ever-changing forms ‘amalgamated socio-political institutions, socio-economic systems, ideologies and material practices’ (Anievas & Matin, 2016, 45) which in turn react upon more developed societies (Matin, 2013). These differing combinations of ‘native’ and ‘foreign’, ‘advanced’ and ‘backward’, ‘new’ and ‘old’, ‘modern’ and ‘traditional’ relate to economics, politics and culture, and make development interactively multi-linear and geographically differentiated. Methodologically therefore U&CD theorizes not
just general mechanisms governing social life (necessity) but also the necessity of multiple outcomes (contingency) and the openness of processes of development (Cooper, 2013).

In international relations these ideas are employed mainly to examine state formation and geopolitical rivalries and conflicts. What this research lacks however is a developed theorization and detailed empirical analysis of differential industrialization, urbanization and connectivity and of the role of capital accumulation: of in other words the objects of urban and regional research which can themselves be examined in the light of U&CD. For these reasons there are important potential synergies between these two fields of study, to which this article seeks to make a small contribution by examining geographies of longue durée industrialization and urbanization and contender catch-up in the light of U&CD (Rolf, 2015).

2 U&CD: some outline macroeconomic geographies

At present wide geographical disparities in labour productivity and output per head prevail, while growth involves phases of relatively sustained growth punctuated by phases of instability and crisis.
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Figure 1 GDP, GDP per head and population in 2014 by major world regions and countries, Source: elaborated from The Conference Board (2015)

In 2014, measured in per capita GDP in 1990 PPP dollars (Figure 1), there were wide differences between the western offshoots of North America, Australia and New Zealand ($31,599), the Asian Tiger economies ($26,406), Japan ($22,700) and Western Europe ($20,964) and the rest of the world (ROW). The Gulf oil states averaged $9,233. In sub-Saharan Africa other than South Africa ($5,678) and Nigeria ($2,119), per capita GDP stood at just $1,205. China ($9,966) and India ($3,975) had moderate to relatively low levels of income per head. With 1.26 billion inhabitants, however, China was the largest economy in the world, with a GDP of 13,590 billion, compared with 10,424 billion for the US and 8,772 billion (8,772) for Western Europe.
Figure 2 Average annual rates of growth, 1950-2014. Source elaborated from The Conference Board (2015)
This geography is a result of long-term processes. Considering the years since 1950 (Figure 2), growth rates were generally fastest in the 1950-73 Golden Age. After the Second World War, Western and Southern Europe grew rapidly. In each subsequent economic cycle Western European growth rates were less than one-half of Golden Age rates and close to zero in 2008-14. GDP growth of the western offshoots also slowed down. Communist Eastern Europe grew rapidly in 1960-73. A rapid transition to capitalism in 1989-97 saw output decline on average at 5.1% per year. In 1997 and 2014 output stood at just 66.2% and 132% of its 1989 level. China’s growth averaged 8.9% per year from 1979-2010 and is one of the reasons for the growth of Asia at 5.4, 6.1 and 6.1% per year in the three cycles from 1989 until 2014. In those years, the growth first of Japan and then of the Tiger economies slowed down markedly. In Latin America, sub-Saharan Africa and MENA, relatively high growth rates in 1950-73 gave way to much slower growth in 1973-97. In Latin America, sub-Saharan Africa and formerly Communist Eastern Europe, slowdown/decline reflected the implementation of Washington Consensus measures. Many of these countries progressively lost competitiveness in world markets, and some came to depend on natural resource/food exports. In growing rapidly Japan, the Four Tigers, China, India and Vietnam violated virtually all of the rules of neoliberalism.
The roots of these disparities lie further in the past in the Great and Little Divergence. The Great Divergence in GDP per capita dates from the start of the Industrial Revolution and the subsequent wave of colonial and imperial expansion. International inequality increased very strongly from 1820 until 1950, when the share of world GDP of Western Europe and Western offshoots peaked (Figure 3). From 1950 until 1990 between-country inequality grew more slowly from a Theil coefficient of 0.51 to 0.54, after which it declined rapidly to 0.26.
in 2014 (albeit with a brief increase after the 1997-8 Asian financial crisis) due to relatively rapid emerging economy growth (van Zanden, Baten, Foldvari, & van Leeuwen, 2014).¹

Figure 4 First and second industrial divides. Source: elaborated from data from (Bairoch, 1997; UNIDO United Nations Industrial Development Organization, 2016)

¹ In 1910-50 and especially in 1950-80 intra-country social inequality declined due to an egalitarian revolution associated with the rise of Communism and the Golden Age decline in income inequality in Europe and the US. After 1980 within-country social inequality increased strongly.
These trends in global inequality reflect the evolving geography of industrialization and urbanization. Before the industrial revolution, Western Europe dominated a set of commercial empires around the Atlantic, Indian and Asian Oceans, while Asia was the centre of world manufacturing (Figure 4). With the onset of the industrial revolution, a number of regions in Western Europe emerged as centres of modern manufacturing, from which economic development diffused to the rest of Europe and white-settler countries. Of them the US pioneered mass production, and replaced Great Britain as the hegemonic global power. This polarization of the geography of industry started to change with rise of Japan and the Asian Tigers, and the Fordist crisis of the 1970s which opened the way to financialization and the hollowing out of advanced capitalist country manufacturing (Michael Dunford, 2005, pp. 156-157), a global shift/offshoring of manufacturing to emerging economies (Dicken, 2010) and eventually debt-
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financed trade imbalances in western countries. Although industrial movement at first involved unskilled manufacturing rather than product design and marketing, export-oriented Asian economies progressively moved up the value chain.

Figure 5 Take-off and relatively sustained growth up to 2014. Source: elaborated from data from Maddison (2003), The Conference Board (2015)

In the last 250 years what distinguishes economically advanced economies from the ROW is sustained growth. In Great Britain the growth of a number of industrial regions and the country’s commercial, financial, political and cultural capital made it the first modern industrial nation (Figure 5). Modern economic growth started some 200-230 years ago. Growth spread to other regions in Europe and white settler territories. After the Meiji Restoration Japan embarked on modern industrial growth. Japanese growth accelerated after defeat in the Second World War,
enabling it to join the group of advanced capitalist economies in the 1980s. The Soviet Union grew rapidly from the 1920s, and after massive Second World War destruction and population loss. Growth however petered out in the 1970s due to the ageing of the fixed capital stock and the inability of the centrally planned economy to replace retiring equipment and infrastructure (Popov, 2014). In the 1960s growth spread from Japan to four small Asian Tiger economies. Until the 1960s, the economies that acquired, adopted and developed advanced technologies and achieved relatively high levels of affluence were few in number and small in size. Although growth spurts occurred, and islands/enclaves of modernization emerged, most economies could not sustain high growth rates and remained relatively backward until the rise of China and India.

In each case growth involved the transformation of predominantly agrarian and rural into industrial and urban societies. These transformations generate profound dislocation and conflict as rural populations are uprooted, agricultural productivity increases, cities grow and new technologies and ways of life are generalised (combined development). As Figure 5 shows, the speed of these changes has accelerated. Achieving a five-fold increase in initial real GDP per capita took Great Britain more than 160 years, Germany more than 108, the US more than 100 and Japan more than 75. Similar increases took just over 22 years in South Korea, 28 in Hong Kong, 24 in Taiwan and 26 in Singapore. Mainland China has so far taken just over 25 years, transforming the lives of some one-fifth of the world's population, compressing what had taken centuries into a few decades, and carrying it out on an unprecedented scale.

The gap that opened up with the Great Divergence was itself however laid upon an earlier gap, that had opened up in the early modern period, with the little Divergence between the most advanced parts of Europe - Flanders, Holland, and England – and the ROW. The ROW included not just China and other parts of Asia where the real wages of labourers were close to
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subsistence levels (Allen, 2009) but also Eastern and Southern Europe where Spanish and Italian GDP per head had gone into long-term decline from 1500.

3 The regional foundations of national development

An examination of these changes in the map of economic development plays a significant role in regional and urban research, as these national differences are results of underling regional/urban differences, interregional and international relationships (commerce, investment, migration), and national institutional configurations. The Little Divergence between the North Sea area and the rest of Europe was regional/urban in character:

In the 14th-15th centuries Flanders formed the urban core of this economic system – and England its ‘periphery’. In the 16th century Brabant (and in particular Antwerp) took over the role of being the core. After 1585 the urban centre moved to Holland, a switch that resulted in the Dutch ‘Golden Age’ of the 17th century. After about 1650 London gradually replaced Amsterdam as the central hub in the commercial network of North-Western Europe, and the urban core switched to England (de Pleijt & van Zanden, 2013, page 2)

This divergence was driven in part by external factors. In 1620 Francis Bacon stated that the modern world was marked off from the past by the impact of three innovations (gunpowder, the printing press and the magnetic compass) which did more than any empire or religion to lift Europe out of the Dark Ages (Justin Rosenberg, 2016). All three were transferred to Europe from China. Other external drivers also played a part (Anievas & Nisancioglu, 2015).

The subsequent industrial revolution occurred in a number of regional economies. In Great Britain in 1760-1800, the most important innovative changes occurred in about ten small
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islands of industrialization near localised resource deposits or in areas of traditional industry: Cornwall, Shropshire, North Wales, upland Derbyshire, Tyneside, the Clyde Valley, South Staffordshire, the West Riding of Yorkshire and South Lancashire. Strong national performance was a result of the growth of a number of strong regional economies, although their growth ruined traditional industrial areas (such as Irish linen in the 1820s contributing to male migration to Britain and the US and depopulation). National structures and trends are underpinned therefore by development within countries that is also uneven and combined.

Figure 6 Prefecture-level GDP in China, 2013. Source: elaborated from data from NBS, various years,

Figure 6 plots the GDP in 2103 of 4 Municipalities and 337 Prefecture level entities (essentially city regions containing smaller County-levels cities, Townships and Villages) in China. In 2013 five cities in Eastern China (Shanghai, Beijing, Guangzhou, Shenzhen and Tianjin) out of 341 accounted for 10.9% of GDP. The top 20, which included two cities in
Western China (Chongqing and Chengdu) and three in Central China (Wuhan, Changsha and Zhengzhou), accounted for 32.2%, while 48 accounted for 50.4%. As throughout the world, wealth creation is strongly concentrated spatially in a relatively small number of city regions.

Variations in GDP and GDP per capita differ enormously (and are subject to constant change). In 2013, in the case of these Chinese city regions, GDP varied by 1173:1 whereas GDP per capita varied by 5.6:1, simply because the population was also concentrated in cities/mega cities. These differences in labour productivity and per capita income and in the underlying geography of economic activities and population are also results of development that is uneven and combined.

4 Capital accumulation and the differentiation and equalization of the conditions of production, distribution, consumption and exchange

The evidence presented in the last two sections points to the constancy of differences in development in the double sense of the unequal development of different parts of the surface of the earth (synchronic, geographical differences in labour productivity and income per head) and of change at varying speeds of relative positions (diachronic historical differences). In this sense there is a law of uneven development. Such a law is however essentially an empirical generalization as it does not fully specify causal mechanisms. Adding the idea that development is combined draws attention to the ways dynamic interdependence/connectedness near-compels enterprises/areas that are less developed to emulate more advanced rivals and reduce differences, articulating the old and the new. Again, however, the underlying causal mechanisms require specification.

As Lewis (1954) indicated, ‘the central problem in the theory of economic development is to understand the process by which a community which was previously saving and investing 4
or 5% of its national income or less, converts itself into the economy where voluntary saving is running at about 12 to 15% of national income or more … [showing that] the central fact of economic development is capital accumulation’. And as (Feinstein, 1981) noted, without an ability ‘both to organise the process of production so as to incorporate the new techniques in appropriate assets, and to save a sufficient sum to provide the finance for those acquiring capital goods … [a society would not be able] to benefit from technical progress however readily the knowledge might be available. In this sense at least the process of capital accumulation must still occupy a central role in any explanation of the growth of output and productivity.’

Capital assets includes tangible productive capital, intangible human capital and natural capital (reminding us of the importance of the metabolism of humanity with nature). In capitalist modes of production natural and productive assets assume the form of private property. Capital itself is value in motion: money capital is advanced to purchase means of production and labour power, which transforms purchased inputs into products that are subsequently offered for sale (Harvey, 2016). The surpluses realised if products are sold for more than the sum advanced are in part reinvested, generating an outward spiral in which rapid increases in the production of goods and services create a need for increasing consumption (which itself depends on the way income is distributed) to recover costs and value added (see also Cox, 2008).
Growth and development themselves involve two inter-related longer-term processes of structural change (Kuznets, 1955): the transformation of societies that are predominantly agricultural and rural into societies in which (1) industry and services are the main sources of
output and employment and (2) the population is predominantly urban. Throughout most of human history these processes unfolded slowly, with many reverses.

These historically and geographically differentiated processes of industrialization and urbanization are a result of drivers of U&CD and in particular of differentiated investments in the conversion of land from rural to urban use and from one urban use to another, in urban and rural infrastructure, in agricultural restructuring to increase productivity and commercialised food production, in export-oriented ‘basic’ industries and ‘non-basic services for the residential population and visitors, and their impacts on rural-urban migration and population change (Figure 7). The specific ways in which these drivers operate and evolve depend on their geographical and economic, political/institutional and cultural settings (see, for example, Campolina Diniz & Vieira, 2016; Liu, Dunford, Song, & Chen, 2016; Turok, 2016). In capitalist societies most involve the investment of financial resources with a view to creating income streams permitting cost recovery, the repayment of credits and the realization of profits.

In urban and regional research these processes are examined in a wide range of theories. All however presuppose the existence of savings and investment. In capitalist societies the main starting point is the (agricultural, industrial, commercial, real estate and financial) enterprise, its profit, growth and upgrading strategies (an M-C-M’ circuit) and its changing relationships with its evolving external environment. These strategies give rise to social, technical and spatial divisions of labour (STSDL) (Massey, 1984) that increase productivity and differentiate and equalize the conditions of production, distribution, consumption and exchange.

Differentiation itself derives from growth and accumulation (and requires new modes of integration/co-ordination). Growth is a strategic objective not simply as a result of choice but due to the existence of competitors and the need (‘the whip of external necessity’) to grow/adjust to
survive. Achieving this objective may involve introducing a new good or a new quality of a known good, a new method of production or mode of management or a new source of labour, opening up of a new market, conquering a new source of raw materials or semi-finished good and/or establishing new organizational models. All are examples of innovation, deriving from dedicated research and development or from spill-overs of knowledge and capabilities.

Outcomes include investment in new plant and equipment, increases in the scale of production (that spread fixed costs over a large volume of output), a more detailed division of labour (that increases productivity as it permit the introduction and use of machines, generating increasing returns) and an increased variety of intermediate and final goods. Geographically, scale/scope, agglomeration and urbanization economies result in the concentration of investments in places that are accessible and have large and extensive markets. In phases of growth, this increased differentiation of industrial activities leads to cumulative and rapid increases in productivity and strengthens the competitiveness of certain firms/regions (especially if reinforced by differences in the elasticity of demand for their products). These enterprises/areas grow rapidly and, aided by revolutions in transport, communications and connectivity, press for greater inter-regional and international integration to secure raw materials, cheaper inputs including labour and access to new or expanded markets, exposing other enterprises and parts of the world to greater competition.

Competition, however, gives rise to equalization tendencies. To remain profitable and survive, enterprises/areas that are left behind must adjust/copy/adapt, introducing new products and/or technologies, securing cheaper inputs or entering new markets so as to match/surpass their competitors, rivals and adversaries. Failure implies relative decline/bankruptcy and is reflected in company/industry life cycles. Success enables survival, and can involve catch-up or even
overtaking, perhaps as a result of latecomer advantage and major shifts in technology and industrial structure. Geographically, moreover, there are limits to concentration with dispersal and equalization arising from higher living, wage and land costs in developed areas (Myrdal, 1957).

Trends in industrial development (and in urbanization) depend on the relative strength of these two sets of forces. Generally speaking, capital accumulation gives rise to greater socio-economic inequality reflected in the concentration and centralization of capital and increased income inequality. Geographically, divergence (uneven development) often prevailed for two reasons. First, companies in some areas introduced more complex divisions of labour and new technologies sooner and more extensively than those in others. Second, structural and geographical asymmetries emerged: different areas specialized in sectors (agriculture, industry, or finance) with different returns to scale and demand elasticities or different functional roles (research, design, management, manufacture, or marketing) that generated differences in per capita value added. Many less developed areas found themselves dependent, for example, on primary goods which do not yield dynamic increases in productivity in the way that manufacturing does, increasing disparities.

The completion of these circular movements of capital (M-C-M’) often encounters limits. These movements can spiral out of control giving rise to crises of different durations, reflecting underlying contradictions/disequilibria and changing secular trends. These chronological trends are also instances of U&CD. In economically developed parts of the world, for example, secular stagnation set in from the 1970s (Figure 2) due to a decline in the expected profitability of further investment after a long period of capital accumulation. To offset this downturn, a number of measures were adopted (an attack on wages and trade unions, the integration of political and
economic power, the privatization of public assets, the accumulation of public and private debt, asset inflation and financialization). The interplay of these crisis tendencies and counter-tendencies generated several waves of expansion followed by severe contractions, at first in some peripheral parts of the world, in Japan, in South-east Asia and finally in the core of the world economy (Streeck, 2016).

5 Inequality, capital accumulation and U&CD

In the last section ideas from economic geography were brought together to identify mechanisms through which capital accumulation causes a constant differentiation and equalization of socio-economic development. An analysis of the varying weight of these forces helps explain the trends in global development outlined earlier.

Capital investment depends however upon the availability of savings. Throughout most of human history savings were insufficient. Some 250 years ago, in the North Sea area, this restriction was lifted in a sustained manner. The ways in which it was subsequently lifted in other parts of the world varied, contributing to different pathways to development.
In pre-industrial societies average income was close to subsistence levels, and traditional institutions and social relations (Asian values) restricted inequality. Significant inequality (beyond a small ruling elite) was incompatible with the survival of the population. As a result, there was little scope to raise savings rates. North Sea economies overcame this constraint by destroying traditional institutions and establishing social relations of capitalist production (private property, a wage earning class separated from the means of production, capitalist agriculture, and merchant capitalist structures) and international divisions of labour. As a result income inequality increased, allowing for the redistribution of income in favour of savings and investment (Popov, 2014).
In 1500-1800 throughout Europe there was a secular decline in real wages. In the North Sea area, however, there was a secular increase in GDP (see Figure 8 for the English case). As GDP increased, middle and upper class incomes increased (Saito, 2015), at the expense of greater inequality and depression of the real living standards of wage earners, but without driving wage earners beneath the subsistence minimum or over-turning the system. Increased upper and middle class incomes enabled savings and investment to increase.

Figure 9 Real wages in Amsterdam, Beijing, London and Milan, 1730-1910 Source: data from Allen at www.iisg.nl/hpw; https://www.nuffield.ox.ac.uk/People/sites/Allen/SitePages/Biography.aspx

Capitalism is founded on inequality. In the Netherlands and England the fact that wages were several multiples of subsistence permitted a compression of real living standards. As Figure 10 shows, real wages in London and Amsterdam fell from the early stages of industrialization.
until 1812 and 1863 respectively, but were considerably higher than in Milan and Beijing enabling these areas to pull cumulatively away from the ROW.

In Japan the first phase of industrialization occurred in the era of late nineteenth century globalization after the Meiji restoration of imperial rule. At that time Japan was a relatively egalitarian society. Growth, however, was accompanied by a strong rise in inequality, as is expected as rural societies are initially transformed into urban/industrial societies (Kuznets, 1955). In Japan however development combined modern industry with a traditional, non-proletarianized agriculture (combining/articulating several modes of production). Although powerful landlords emerged, rural society predominantly comprised small rural cultivating landlords and tenant cultivators supplementing labour and land-intensive farm-work with proto-industrial and off-farm occupations (Saito, 2015).

Figure 10 Gross capital formation as a share of GDP. Source: elaborated from World Bank (2016) and The Conference Board (2015)
Countries that industrialised later pursued different paths (Gerschenkron, 1962), and these paths involved different institutional and real wage evolutions. Centrally planned economies in Eastern Europe and China mobilised domestic savings for investment without high inequalities and started to catch up. After the Second World War, a slow increase in income and considerable US support enabled Japan and the Asian Tigers to increase savings rates and investment and achieve sustained economic growth, with degrees of inequality that were significantly smaller than in Europe and Latin America, and without a reduction in real living standards. China more recently embarked on a transformation which saw inequality increase but the real incomes and consumption of almost all sections of the population rise and millions lifted out of poverty, contrasting sharply with the experience of the first countries to industrialise. As in other Asian countries, however, the speed and sustained character of growth derive from exceptionally high rates of saving, investment and capital accumulation (Figure 10).

6 Political multiplicity, governance capacity and equalization and differentiation of the conditions of production, consumption, distribution and exchange

These contrasting ways in which income distribution, savings and investment influenced growth are just one aspect of the institutional/political mediation of capital accumulation. The world is divided into a multiplicity of states with different institutional/civilizational/social configurations. These configurations evolve in the light of national reforms/revolutions and the internalization of international influences. These states themselves adopt development strategies that serve to increase and reduce disparities. At each point in time these states also function as differentially endowed centres of development. Japan, for example, has acted as an important driver of combined development in Asia. China is emerging as a driver of combined development in Eurasia, and, through development co-operation and investment, in Africa.
In a world of multiple polities developed states competitively/collaboratively and individually/collectively assert their dominance over other countries. Countries that are less developed are enmeshed in asymmetric webs of economic, political and military dependence that can impede/enhance their growth and development. 100 years of humiliation from the first Opium War to 1949 saw China, for example, go backwards economically to become the poorest country in the world. After the Second World War the US supported the development of its allies in East Asia and Western Europe.

Contender countries sought to close development gaps. Commercial and military rivalries played a part in the nineteenth and early twentieth century growth of European economies and the initial rise of Japan. In the second-half of the twentieth century East Asian contender countries aided by the US caught up quickly. To counter relative under-development, contender countries usually start with import substitution policies that see newly created industries crowd out foreign goods from the domestic market. At an appropriate point, emerging countries must switch to export orientation. Countries/regions that have established some domestic nodes of industrialization positioned in the early stages of development nonetheless find the challenge to grow from their initial positions extremely difficult. Industrial investment often depends on incoming transnational corporations that are very resistant to domestic content and technology transfer requirements and use their influence with international organizations and their domestic governments to unravel policy restrictions.

State-directed development of the productive forces is a driver of combined development, designed to jump steps and move progressively in the direction of a relationship of *similarity* with more developed economies by grafting on aspects of modernity. The aim is not to accept an about-to-be-established relationship of *complementarity*, involving sustained occupation of a
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subordinate position in an international capitalist division of labour that reproduces unevenness (Desai, 2015; Rolf, 2015).

An ability to overcome the aforementioned constraints and move in the direction of similarity depends in part on the strength of national identify, state domestic and international governance capacity, underlying social relationships/capability (Abramovitz, 1986) and the international context including relations among states. Of these determinations, state capacity depends on state strength and scope. State strength denotes the capacity of a government to enforce laws cleanly and transparently, implement effective policies and ensure compliance with the state’s monopoly of violence and economic regulation, State scope denotes the range of functions that a government can effectively accomplish (Popov, 2014).

Great Britain’s rise involved the use of protectionism and free trade policies along with the resources and markets of its empire to promote industrialization. The development of contender countries such as the US, Germany and Japan all involved state-supported capitalist industrialization and catch-up: the US used tariffs, import controls, subsidies, tax exemptions and state investment in infrastructure. The initial development of the Soviet Union and China involved state planned socialist models. The catch-up of western and southern Europe was shaped by varied systems of governance that often involved significant state investment/intervention. East Asian catch-up was shaped by a variety of developmental states that mobilised domestic and international financial resources and supported strategic industries. In none of these cases did development occur in the context of a minimalist multi-party representative state.

These cases are studied in terms of the rise and decline of nations/regions or the rise and decline of institutions: in Trotsky’s theory of U&CD these questions are combined (van der
Uneven and combined development (Linden, 2007). An implication is that, alongside economic mechanisms, national institutions and the strength and capacity of states play an important role in driving catch-up industrialization/combined development. Popov (2014) has argued that state capacity depends on historical evolutions and in particular on the impact of colonization (combination) on traditional community structures. State capacity was/is strong where traditional institutions were completely destroyed and replaced by Western institutions in white settler countries (except South Africa), weak where they were destroyed but only partially replaced in Latin America, sub-Saharan Africa and to a lesser extent South Asia, and strong where they (Asian values) survived as in parts of East Asia. Consequent differences in institutional conditions and economic inequality played a central role in explaining catch-up industrialization.

As Trotsky argued, economic and cultural capacities of adaptation and assimilation have performed an important role in determining the extent to which latecomers take advantage of the privilege of backwardness to appropriate what is relatively advanced (through investment, learning and acquisition), avoid steps on the path (through stage skipping investment), create combinations with a higher preponderance of modern elements and generate these effects quickly and strongly (Figure 5). The mirror image of the privilege of backwardness is the handicap of a head start. If a head start results in rigidities that impede progress as, for example, by restricting the scrapping of old and investment in new assets that are possibly interdependent and under the (uncoordinated) control of different owners, a relative latecomer leap forward is more likely (van der Linden, 2007).

Cases of latecomer advantage in contemporary China reflect both a privilege of backwardness for China and a handicap of a head start for more developed areas. China’s rail system was largely developed after the Second World War. China’s rolling stock was
Uneven and combined development predominantly steam-driven until the 1980s. In the new millennium, however, China acquired all the patents worldwide for trains capable of exceeding 250 km/h, and in 2003-15 constructed a 20,000 km high-speed rail system. China had great difficulty in establishing a wired telephone network, yet was able to jump into the era of wireless and digital communication. Although western countries and South Korea were at the forefront of third generation cell phone technologies, China was an early player in fourth and fifth generation technologies. Chinese financial institutions still use large amounts of paper, yet internet banking has developed at an extraordinary speed. In the absence of a high-quality incumbent legacy retail system at all levels of the urban system, online shopping has taken off explosively and is highly innovative.

Catch-up and overtaking depend however on governance and economic and cultural capacities of adaptation and assimilation, making the attention paid in regional and urban development studies to institutional variety and performance increasingly vital. Attention has been paid to varieties of capitalism, variegated governance (J. Peck & Theodore, 2007) and varieties of ‘plan rational’ developmental states (Haggard, 2015).

Although identification of these types contributes to causal accounts of comparative development and critiques of more generalized models, these categories do not capture the diversity, multiplicity and particularity of social configurations and development pathways. In an unevenly developed world, the diffusion of ideas, knowledge and values and the imperatives of geo-political and geo-economic competition result in interaction and in reproduction in each and every territory/polity of a unique variety of social structures. In these interacting multi-scalar

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² China for example has combined inherited and imported elements in new ways to mix state-owned enterprises, solely-owned direct foreign investment, joint ventures, township and
contexts, joint transformations of social structures and institutions are designed to move forward while dealing with contradictions, generating as many development paths as there are places.

7 Conclusions

The theory of U&CD emphasizes the ways in which the evolution of a world made up of differentiated societies/polities depends not just on their internal structures and agents but also mechanisms deriving from their interconnectedness/combination. In a world of societies in which the capitalist mode of production predominates, mechanisms that constantly create new forms of unevenness coexist with mechanisms that equalise development. These mechanisms are economic and political. Economic mechanisms derive from competition, the accumulation of capital, the expansion of demand and institutional adaptation. Political mechanisms derive from political multiplicity and depend on whether relationships are competitive or collaborative and on governance capacity. Acting at multiple geographical scales and changing over the course of time, the relative weight of mechanisms of differentiation and equalization drive comparative development, while the combination of inherited conditions with whatever is in advance at any point in time gives rise to complex articulations of modern and non-modern modes of production and ways of life and multi-linear development.

village enterprises, private enterprises, a rural household responsibility system, state/collective ownership of land, massive public assets, a unified state with strong political decentralization and fierce inter-jurisdictional competition, elite consultative democracy, a cadre responsibility system, a combination of Confucian, socialist and consumerist values and a distinctive model of international relations, amongst others.
In this article this concept of U&CD was elaborated to provide an interpretation of the Little and Great Divergences (section 2) and of macro-geographies of catch-up industrial and urban development. Considerable attention was paid to (1) differential capital accumulation, (2) the impact of income distribution on the availability of savings to finance infrastructure, acquire capital goods and develop/acquire and exploit human knowledge and capabilities and (3) the political capacity to implement catch-up development.

Uneven development is a central concept in urban and regional research. A weakness of this concept compared with U&CD is that it pays insufficient attention to interactivity/connectivity and political multiplicity. U&CD combines the analysis of dynamic change over historical time and comparative differences across geographical space (J. Rosenberg, 2006). U&CD embraces the analysis of multi-scalar and historical processes of capital accumulation and the associated movements of money, people, goods, income and wealth that serve to widen/reduce disparities of all kinds. U&CD involves a conception of the global system as a constellation of interacting, national institutional configurations and interests that shape economic trends in part through state development strategies. The asymmetric integration and interaction of national models of development and the way they interact with global processes modifies their internal dynamics and generates international/sub-national disequilibria.

These ideas have much to contribute to urban and regional research and its relationships with cognate disciplines. More specifically, U&CD provides a powerful overarching framework for the analysis of urban and regional dynamics: the specific socially-mediated processes of catching-up, falling-behind, overtaking and surging-ahead that generate geographical variety and comparative regional/urban evolutions. This framework requires, however, further specification of the underlying causal drivers and repercussions of the concentration of infrastructures, jobs,
people, income and wealth in hierarchical systems of interconnected city regions. The extant literature already contains numerous insights as does research in cognate disciplines, although analysis must deal not with generic (indeterminate) categories/mechanisms but with the forms they assume in different institutional and social contexts.

References


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