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Accumulation Regimes

Agnès Labrousse and Sandrine Michel

Introduction

Historical observation shows that accumulation undergoes long periods of stability, followed by long periods of instability and crisis, so the economist has to explain why an episode of growth, based on a seemingly 'virtuous' accumulation process, can enter into crisis. Accumulation regimes grasp the dynamic compatibility of production, income sharing, and demand dynamics: "the set of regularities that ensure the general and relatively coherent progress of capital accumulation, that is, which allow the resolution or postponement of the distortions and disequilibria to which the process continually gives rise" (Boyer & Saillard 2002: 334).

Two institutional theories, French Régulation theory (RT) and the American Social Structure of Accumulation (SSA) theory, are particularly relevant to the investigation of accumulation processes. According to both theories, capitalism operates within institutional frameworks that are specific to times and places and underpin macroeconomic regularities. Thus, accumulation regimes (or SSAs) are embedded in evolving institutional forms, including capital-labor relations, forms of competition, financial institutions, forms of the state, and international relations. Accordingly, there is no canonical accumulation regime but a variety of regimes.

In heterodox economics, analyzing the accumulation process goes hand in hand with a dynamic conception of the economy, relating economic regularities and fluctuations to mainly endogenous socioeconomic developments, innovations, crises, irreversibility, and path-dependency effects. This is a departure from equilibrium thinking wherein economic fluctuations

are seen as mere (mostly exogenous) perturbations and temporary deviations from a normal equilibrium state (Veblen 1899-1900).

Accumulation—the process of adding productive capital to the previously invested one—is closely linked to capitalism and its dynamics. The last three centuries have witnessed an extraordinary accumulation of capital: estimates indicate that capital multiplied 134 times between 1700 and 2008 (Bonneuil & Fressoz 2016). In the early stages of capitalism, classical economists underline investment-led growth but simultaneously express doubts regarding the possibility of accumulation as an endless process. However, with the exception of Thomas Malthus, they neglect the possibility of the lack of effective demand and its consequences for the accumulation process.

Two other traditions underline the instability and crisis-prone character of accumulation processes. Marxians, as well as German and American institutional economists (in the original tradition), demonstrate that the instability and the transformations of the accumulation process go hand in hand with the mutations of capitalism. Original institutional economists introduce the endogenous role of institutional and organizational arrangements to understand the accumulation process and its cycles. Thus, they initiate a long theoretical path towards the later notion of an 'accumulation regime.' This notion was developed from the 1970s onward by RT, which displays many commonalities with SSA theory. These theories develop comparable theoretical building blocks to study past and present accumulation regimes and to uncover their sheer diversity in time and space.

Accumulation before the notion of accumulation regime

The classical economists and Marx consider capital accumulation as the central characteristic of industrial economies. The original institutional economists integrate institutions to analyze endogenous accumulation dynamics.

Accumulation and the classics: beyond the steady state?

The classical economists attribute the increasing wealth of nations to a virtuous accumulation circle: capital accumulation enables an increase in the number of productive workers and enhances the division of labor, leading to an increase in production and productivity and thus profits. Parsimony is a cardinal capitalist virtue for Smith (1776), as profits are translated into savings that are then used to finance further investments. This investment-driven growth model makes sense in early industrial capitalism, as entrepreneurs, heading small-scale family companies, reinvest their profits.

However for most classical economists the long-run exhaustion of accumulation, captured by the concept of the steady state, is inescapable. Population growth triggers allegedly diminishing returns in agriculture and impacts the whole economy, as higher corn prices increase subsistence wages, thus decreasing profits and slowing down accumulation. Ricardo (1817) considers international trade to be a transient back-up growth engine, and focuses his explanation of accumulation dynamics on the supply-side.

Yet, far from a steady growth preceding the steady state, crises occurred from the very beginning of capitalism (Sismondi [1827] 1971; Malthus 1836). According to Malthus (1836), crises originate in under-consumption, making capital accumulation unsustainable. This demand-

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side explanation contrasts with exogenous explanations (for example, J.-B. Say ([1803] 1872) and the incompetence of government).

Marxian accumulation: instability and crisis

For Marx (1867), the expansion of capitalism combines the pursuit of accumulation with exploitation of the labor force. To inform this dynamic, he first analyzes the origin of profit in production by introducing the theory of surplus value. Second, he studies the circulation of capital in all its phases and focuses on the transformations of capital from one state to another. With the 'falling rate of profit and its countervailing tendencies,' he introduces contradictions between the requirements of the production of surplus value and the circulation of capital. These contradictions are permanent, and are first expressed in a low but manageable intensity. But, in the longer term, contradictions spin out of control and society as a whole goes into crisis. Thus, the capitalists' permanent pursuit of profit faces the risk of over-accumulation. Like Sismondi ([1827] 1971) and Malthus (1836), Marx associates over-accumulation, defined as an excess of capital, with a large range of ill-effects. He also shares their understanding of counteracting processes, and develops the concept of devaluation as a means to purge the excess of capital (Marx 1867: 30, 1894: 605-609). The devaluation of capital appears as a way of producing a non-value necessary to achieve capital valorization. Over-accumulation and devaluation are two sides of the same coin.

Referring to Marx, Harvey (1982: 190-203) classifies devaluation into two categories. The first and 'gentle one' belongs to the inner logic of capitalism. It represents the constant devaluation of existing capital. It delays the falling rate of profit. It focuses mainly on

maintaining the dynamics of the labor-capital relation according to the leading force of profit. Marx analyzes the devaluation of labor power as a general tendency of accumulation. The increase in labor productivity has the capacity to cheapen goods and consequently wages, that is, the value of the workforce (Marx 1867: 220). Because of competition, this depreciation is soon generalized through commodity prices to all sellers aspiring to recover surplus value. The issue is: who supports this depreciation? For Marx, the burden falls on workers. Indeed, the increase of labor productivity (meaning, exploitation) constitutes a robust means for capitalists to secure the surplus value (Marx 1867: 418). Accordingly, to augment the profit share in global value, capitalists have to contain wages and employment, and keeping labor-power 'devalued' in order to maintain future accumulation.

The second devaluation category is more dramatic. It occurs during crises. In this case, devaluation has to support the elimination of the capital that is in excess, under three main forms featured by their effect on the rate of profit (Marx 1894: 173). First, it may be done in a radical way when it takes the form of a destruction of productive capital and labor power. Second, devaluation can take the form of a negative rate of profit. However, the excess capital can be kept as an economic value losing all entitlement to be remunerated by profit (zero profit rate). Third, it can be kept as capital but will be valued at a lower rate than the average (the genesis of share-ownership). The depth of the devaluation depends on the extent of over-accumulation. In this type of devaluation the reproduction of the economic dynamic can lead to irreversible structural changes. The association of crisis devaluations with economic change is the core of economic instability.

The generalization of capital devaluation during economic crises impacts social relations because this process constitutes a threat to the reproduction of class relations. Social bonds come

into tension and lines of social conflict emerge over who has to bear the burden of capital destruction. These conflicts oppose capitalists against capitalists and capitalists against workers. In Marx's (1894: 175) view, a devaluation process through an accumulation crisis can renew its course on a new basis.

The inheritance of Marx is neither clear nor unanimous. Issues raised by his closest followers are often contradictory for the interpretation of globalization. For example, Luxemburg (1913) analyzes imperialism as a painless devaluation process of capital in a context of a structural accumulation crisis in developed countries, whereas Hilferding ([1910] 1981) puts forward the concentration of capital and the increasing role of banks in exporting capital to achieve an extra-profit. They also differ in their appraisal of the end of capitalism, as some support revolutionary lines (Luxemburg 1913; Lenin 1918), while others envision a democratic path (Hilferding [1910] 1981; Kautsky 1927).

Accumulation in old institutional approaches: measuring and theorizing context-dependent capitalist dynamics

From the second half of the nineteenth century, an historical and institutional form of political economy developed in the German historical school and the American original institutional economics. These economists depart from both the nascent marginalist equilibrium thinking and Marxian determinism. Like Marx, they underline the innovative but conflictual and crisis-prone character of capitalism. However, they are more aware of the diversity of capitalist dynamics and questioned the very idea of universal laws of economic development. They provide important methods and results to conceptualize the processes of capital accumulation.

From a methodological perspective, their theory is grounded in careful empirical research and participate in the ongoing improvement of techniques to organize and analyze time series data. Economic fluctuations are decomposed into trend, cyclical, seasonal, and irregular components. For them, "the explanation of cycles ... belongs to the group of endogenous doctrine, which on the basis of meticulous documentation and decomposition of the process seeks to identify its causes from within" (Spiethoff [1923] 1925: 69). They typify these fluctuations according to their duration and cause. Different kinds of cycles are highlighted, from the business cycle, conceived as the basic movement (Mitchell 1927), to the long cycle, epitomizing the structural movement of the economy (Schumpeter 1939). They both stress recurrences and crises as components of cycles.

Integrating an international comparative perspective, and drawing on relationships between local and global dynamics, they insist on the historical and institutional context in which production, investment, unemployment, innovation, relative prices, or money are embedded (Schmoller 1901; Sombart 1927; Simiand 1933). The observed variations in the timing and depth of economic fluctuations are ingrained in these diverse historical backgrounds, rather than being expressed as pre-defined schemes (Burns & Mitchell 1946). Even if national economies display similar features (such as the development of monetary exchange and capital accumulation, and profit as a growth engine), and thus comparable economic movements, various path-dependent development trajectories do persist (Veblen 1915). Crises also take various forms depending on the evolving economic structure, such as the overproduction of consumption or production goods, and financial crises accompanying the development of fictitious capital (Veblen 1915). The features of these developments can be traced back to socially embedded institutional sets and policies that are partly idiosyncratic.

These efforts are part of a vast theoretical project to unravel the endogenous dynamics of economic systems, their structural variety in time and space, and to link them to evolving techniques and lifestyles, organizations and institutions (Schmoller 1901). Notably, the latest generation of the German historicists feature the historical diversity of capitalism(s). Both Sombart (1927) and Weber (1984-2016) investigate the unique emergence of capitalist accumulation, highlighting a complex web of religious, (geo)political, and economic factors. Far from being an inherent trait of human nature, the desire for gain, Sombart (1927) argues, is a capitalist social and political construct. Implementing the capitalist wage-labor organization requires an artificial and 'violent' disciplining of labor. The significant savings necessary for accumulation in early capitalism were enabled by the extremely uneven distribution of wealth, and by the henceforth prevalent interest in accumulating—the latter being the paradoxical by-product of the protestant ethos, as Weber (1904-1905, in 1984-2016: I-18) asserted.

From nascent to advanced capitalism, different types of accumulation and demand evolved. Sombart (1927) distinguishes two sources of capitalist demand. Exogenous demand (outside capitalism) was prevalent in the 'early capitalism.' The output of production was sold mainly to people who were neither business entrepreneurs nor their employees, including landed proprietors, high finance (brokers and speculators), governments, and populations outside Western Europe. With the development of capitalist relations, endogenous demand has played a growing role, as it embraced both the purchase of consumer goods by capitalist entrepreneurs and their employees, and the purchase of production goods by firms. Sombart (1927) uses British, French, and American statistics to show that real wages doubled within the period of advanced capitalism. It fueled a demand for its own products by innovating and changing its methods.

As business organizations became more intensive, speeding up operations, rationalizing the use of materials, equipment and personnel, labor productivity doubled. 'Late capitalism,' according to Sombart (1927), goes with new waves of mutations after World War I, including the incursion of normative ideas into business practice, the dis-establishment of profit-seeking as the sole guide of economic activity, declining flexibility, a steadier course of evolution, the substitution of agreements and planning for free competition, the standardizing of industrial organization, and the growing share and control by the state over the economy (the rise of 'regulated capitalism' and of socialism). Capitalism according to Sombart is multifaceted and compatible with a bewildering array of organizational forms and 'economic styles.' The rise of large business is not synonymous with the sweeping concentration of business control forecasted by Marx. Corporate organizations coexist with small businesses, cooperatives, and communal enterprises.

These points have much in common with the historical account of accumulation regimes highlighted by RT many decades later. Like the German historical school, RT belongs to historical institutionalism. However, the genesis of RT does not exhibit any direct affiliation with its German predecessors.

Accumulation regimes: contemporary theoretical approaches

RT and SSA are institutional approaches that emerged in France and the US in the 1970s, at a pivotal time in their post-war economic trajectories. These approaches conceptualize capitalism as an open system embedded within social, political, and cultural institutions affecting its dynamics, notably the accumulation process.

The genesis of Régulation theory and SSA: strong commonalities

Régulation theory is inspired by Marxian insights into the contradictory dynamics of capitalism,

Kaleckian and Keynesian macroeconomics, and the Annales historical school (Boyer [1986]

1990). Its purpose is to explain the period of relatively high and stable growth of the post-war

'Golden Age' followed by slow growth and macroeconomic disequilibria in the advanced

industrialized economies, particularly arising from the 1970s economic crisis. Vintage RT

investigates the long-term transformations of capitalism, starting with case studies of the US

(Aglietta [1976] 2000) and France (CEPREMAP-CORDES 1977). It characterizes the Golden

Age as a Fordist accumulation regime embedded in a complex of institutional forms.

Comparative studies reveal that there were several forms of Fordism, as well as non-Fordist

dynamics (Boyer & Mistral 1986).

The origin of SSA is strikingly similar. Reich (1993) identifies the original theoretical

perspective as emerging from Marxian views concerning class conflicts, and from Marxian and

Keynesian macroeconomics. It developed "to understand the origin of the exceptional growth of

the post-Second World War period, and to analyze the mechanisms and consequences of the

structural crisis that struck the US in the late 1960s" (Coban 2002: 299). These similarities

enabled some common work (Bowles & Boyer 1988). Fundamentally, RT and SSA explain the

move from growth to crisis by a shared set of hypotheses. Let us scrutinize this further.

Accumulation regimes: the building blocks

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régulation theory describes the social and economic patterns that enable accumulation to occur in the long term between two structural crises. These regular patterns as a whole are summarized by the notion of an accumulation regime. Identifying regular patterns does not require the exclusion of crises: the description of accumulation regimes includes their evolution and potential crises Where neoclassical and post-Keynesian theory look for a general, invariable model, régulationists recognize a variety of accumulation regimes ... that are transformed over the long term and vary in both time and space.

An accumulation regime refers to "the set of regularities that ensure the general and relatively coherent evolution of capital accumulation, that is, which allow the resolution or postponement of the distortions and disequilibria to which the process continually gives rise" (Boyer 2002b: 335). These patterns relate to five key characteristics.

The first characteristic is the evolution of the *organization of production* and of *labor's relationship to the means of production*. The implementation of the Fordist productivist work organization was associated with in-house careers, long-term commitment, and employment stability, whereas the contemporary finance-dominated regime promotes flexibility of commitment and labor-shedding strategies.

The second characteristic is the *time horizon for the valorization of capital*, translating into *management principles*. The Fordist accumulation regime—with its ex ante sharing of productivity gains, the stabilizing role of the state and its 'patient capital'—enhanced the foreseeability of economic activities and lengthened the time horizon of firms (Boyer 2004: 57-

58), as it is translated into long-term planning and investment, and a high level of in-house production. The contemporary finance-dominated accumulation regime fell back on short-termism (the volatility of speculative finance, a high degree of uncertainty), as it is translated into the financialization of management standards (Aglietta [1976] 2000) including shareholder value, benchmarking, and outsourcing.

The third characteristic is a *distribution of value* that enables the dynamic reproduction of the dominant social bloc (Amable 2003). In Fordism, the wage-earning class became an essential political force as a compromise emerged between the managers of firms and industry workers against rentiers, resulting in the productivity indexation of wages and lower wage disparity. In the contemporary finance-dominated regime a polarization of income and wealth distribution has developed, leading to a decrease of the wage-share, emergence of sky-high wages for a tiny 'elite,' and the comeback of the rentier thanks to a management-stakeholder compromise.

The fourth characteristic is a *composition of social demand* matching the *tendencies in* the development of productive capacity. In the Fordist regime, the regular development of direct and indirect wages enabled a dynamic fit of mass consumption with a steadily increasing mass production. In the finance-dominated regime, for workers the wealth-effect is at best limited, public and private debt or export are considered back-up engines of growth, and there is a strong tendency to overcapacity.

The fifth characteristic is an *articulation with non-capitalist economic forms*, when significant in the investigated socio-economic configuration. This point is highly relevant for developing countries but also for advanced capitalist ones. For instance, many Fordist countries experienced a large increase in higher education enrolments, primarily funded through public expenditure. In the finance-dominated regime, this model more or less persisted until the 1990s.

Subsequently structural changes have been implemented. Higher education is moving towards private funding by individuals, as meritocratic selection is progressively replaced by pecuniary selection, embedded in a more competitive and hierarchical organization (Carpentier 2015).

Both RT and SSA propose formal models in support of their analyses. They started in a similar way, building linear macroeconomic models to test the stability of the determinants of economic dynamics. The SSA's models estimate the determinants of profits in the US context after World War II and examine how public policies failed to restore the previous dynamics of profit in the Reagan era (Bowles et al. 1983; Gordon 1991). Early Régulatonist models focus mainly on the gross domestic product (GDP) growth rate based on labor productivity and overall final demand. Variations in the model's specifications generate several regimes and scenarios (Boyer 1988; Billaudot 2002). These models were subsequently enriched by focusing on regime changes rather than invariances, introducing more refined econometric techniques (Boyer & Juilliard 1994). Furthermore, some SSA contributors develop evolutionary game models to formalize individual preferences while abandoning the self-interest axiom (Bowles 2004). Later Régulationist models strive to capture a higher level of complexity. Lordon (1991) formulates bold propositions to move towards endogenous non-linear dynamics. He formalizes the dynamic instability proper to 'minor crises.' Using bifurcations models, he explores the structural instability specific to major crises. He then formalizes a truly endogenous process of structural change in which the repetition of a conjuncture over the long-run produces structural deformations. He calls this Régulationist-specific change 'endometabolism' (Lordon 1993, 1997). For both RT and SSA, the ongoing challenge is to formalize the 'recomposition' processes through which new institutional forms emerge.

The embeddedness of accumulation regimes in a conjunction of institutional forms

Following the Annales school historian Ernest Labrousse, the crucial message of RT is that every society displays the economic evolution and crises that correspond to its structure (Boyer 2002a: 14). This structure is an amalgam of institutional forms or, in SSA nomenclature, the social structure of accumulation is a "coherent set of economic, political and cultural/ideological institutions that provides a structure for capitalist economic activity" (Kotz 2003: 263). In Régulationist parlance, institutional forms result from struggles, conflicts, and power relationships crystallized in institutionalized compromises. Political coalitions are thus at the heart of institutionalized compromises which create sets of rules, rights, and obligations. Thus, they frame the strategies and behaviors of the groups and individuals involved (André 2002). Institutional forms are situated in time and space. Therefore, institutional forms do not express pre-existing economic laws. Conversely, institutions create localized regularities that are contingent on a given social configuration.

Here again, RT and SSA develop comparable institutional matrixes to investigate historically-situated economies:

- 1. The *wage-labor nexus* (RT) and *capital-labor relations* (SSA), including the organization of work, labor-management relations, and sources of labor supply.
- 2. Forms of competition (RT) and capital-capital relations (SSA), including forms of competition and corporate governance.
- 3. The financial/monetary regime (RT) and financial institutions (SSA).
- 4. The *state-economy relationship* (RT) and the *government's role* (SSA).

5. The insertion in the international regime (RT) and international relations and institutions (SSA).

SSA theory integrated initially a sixth crucial element: the *dominant political coalition*. A new SSA emerges only after a realignment of political coalitions. This concept was initially implicit in RT, but later Régulationists directly tackled this political issue. Lordon (1999), drawing on Bourdieu, explores the role of symbolic power in the construction of economic ideas and policies. Amable (2003: 66) introduces the Gramsci-inspired notion of *dominant social bloc*:

the institutional configuration of an economy depends on the formation of a stable dominant social bloc coalescing different socio-political groups prone to support a coalition with a certain political strategy. Implementing this strategy will lead to institutional change in a direction that is beneficial to the dominant social bloc. However, the social bloc itself is a coalition of different and sometimes diverging interests; the institutional structure that will result from the political strategy that it supports will therefore be a compromise, which may be more or less explicit.

These interdependent institutional forms are hierarchically ordered. The Régulationist notion of *institutional hierarchy* grasps the dominance of one institutional form over others. It hinges on power relations and political coalitions, as some collective actors are able to restructure institutional compromises beyond their direct sphere of influence. For example, the post-World War II arrangements reflected the need for compromise with the wage-earning class. The 1990s saw the rise to power of internationalized financial capital, imposing its logic and

rhetoric on the state (in search of credibility), the wage—labor nexus (subject to the flexibility imperative), and the monetary regime (in charge of financial stability) (Boyer 2002b: 331).

Institutional forms co-evolve and even cohere. As Amable (2003: 6) suggests, "economic 'models' should not be considered just as a collection of institutional forms, but also as a set of complementarity relations between these institutions, which form the basis of the coherence between the specific institutional forms of each model." This notion of *institutional complementarity* refers to the contingent compatibility of institutional forms that may emerge in some economies after mutual adjustment processes. One example of this complementarity is the Fordist conjunction of the contract-based nominal wage with a credit economy in which the national money supply is endogenous with limited constraints imposed by the international system (Boyer 2002b: 330).

The reproduction of institutional forms over time enables the emergence of stabilized patterns of behaviors that define a *régulation mode* (see Figure 1). It does not mean identical reproduction, but rather historical representation, as "unforeseen events arise, cycles follow one another, institutional forms gradually change and there emerges the possibility of evolutions so contradictory that they become explosive" (Boyer & Saillard 2002: 42). All accumulation regimes and régulation modes are finite, as they are affected by serial disequilibria and conflicts that eventually destabilize them. Similarly, every SSA is subject to both exogenous shocks and endogenously created tensions. These frictions eventually erode the SSA, compromising its ability to promote returns, investments, and growth. RT distinguishes between *minor crises* that are accommodated via adjustments of existing institutions, and *structural crises* leading to a profound restructuring of institutional forms.

It should be stressed that RT is explicitly a *non-functionalist approach*. It scrutinizes the dynamic viability of a set of institutionalized compromises when there is no *a priori* reason why they should define a stable or virtuous accumulation regime (Boyer 2002a: 2). It refutes the idea that more efficient accumulation regimes drive out less efficient ones. Notably, the conceptualization of (post-)Fordism is not the core of RT; rather, it is a local outcome of RT's theoretical framework. RT investigates an extensive variety of evolving socio-historic configurations. It is a historicized theory working as a general investigation matrix to analyze localized arrangements.

<Insert Figure 4.1 here>

Evolution and diversity of accumulation regimes

RT identifies a broad range of accumulation regimes. This diversity in time and space relates to capitalist, emerging, semi-peripheral, and socialist economies. Delineating a situated dominant accumulation mode like Fordism or finance-dominated accumulation should never blind us to the existence of a variety of compossible regimes.

Diachronic diversity in long-standing capitalist economies: a highly stylized history

Extensive accumulation with competitive régulation mode: the Great nineteenth century

During the nineteenth century, agriculture-based accumulation (and crises) progressively moved towards an extensive accumulation regime relying on a massive mobilization of labor and capital, with weak growth in productivity and wage purchasing power. Capitalist development conquered new spheres of activity and globalized. Wage labor was developing but remained marginal. Workers' consumption played a minor part in the macroeconomic loop, and accumulation relied mainly on the profits of entrepreneurs, rentiers, and farmers, as well as public spending and external demand. Wage earners were in a weak position, as wages were both low and synchronized with the business cycle. Employment and wages rose with economic activity, then plummeted with the downturn. It is a regime of cyclical growth with recurrent crises, embedded in a competitive régulation mode.

Intensive accumulation without mass consumption: the interwar period

The period around the turn of the twentieth century witnessed the increasing development of finance, the emergence of large capitalist enterprises, and the progression of wage labor, particularly in the US. This laid the groundwork for the emergence of an intensive accumulation regime in the inter-war period in which the conditions of production are transformed to increase productivity, raising the capital stock per worker. The rationalization of production techniques enabled increasing economies of scale and the rise of mass production. With the development of wage labor, wages became an essential component of demand. However, wage formation remained competitive, curbing their progression and leading to wage stagnation. Despite significant productivity gains, overproduction emerged and led to the Great Depression.

Meanwhile, collective wage bargaining progressed together with the implementation of indirect wage elements, prefiguring the next regime.

Golden Age Fordism: intensive accumulation with mass consumption

Fordism was dominant in many developed countries during the Golden Age of capitalism, linking intensive accumulation with mass consumption. It coexisted with mixed or alternative accumulation regimes in various economies. Fordism can be stylized as an accumulation regime defined by three characteristics (Boyer 2002b).

The first characteristic is a system of *work organization* striving for continuous growth in productivity. Building on the 'scientific management' techniques of Taylorism, Fordism promotes the division of labor, the mechanization of production processes, and the separation of conception and production. The assembly line epitomizes this form of industrial engineering, which tends to diffuse into many sectors.

However, this work organization is not enough. The second characteristic of the Fordist growth mode is an *institutionalized share of productivity gains* for workers. The US collective bargaining agreements of the 1960s (Aglietta [1976] 2000) and the French policy of 'sharing the dividends of progress' (Boyer 1979) are examples of institutionalized social compromises allowing for the regular growth of wage income fuelling demand. These two characteristics define the Fordist wage–labor nexus and enable a virtuous circle between mass production, mass consumption, and high growth.

Third, this combination is embedded in mutually enforcing *institutional forms*. These include the centrality of the wage-labor nexus associated with worker-manager balance,

oligopolistic forms of competition, credit-based monetary regimes allied with the taming of speculative finance, embedded state-economy relationships based on Keynesian counter-cyclical policies, high levels of public spending and taxation, and major welfare state developments (Delorme & André 1983). The adjustment of production and demand occurred primarily within each country, for this is an inward-looking intensive accumulation regime governed by internal consumption.

Growing internationalization thus destabilized this institutional architecture and after a period of internal adjustments, the Fordist accumulation regime went into a major crisis during the 1970s. This crisis saw the erosion of productivity gains and profits, the fragmentation of previous compromises linked with internationalization and the expansion of the service sector, and the end of the Bretton Woods agreements. SSA researchers obtain similar results for the US (Coban 2002: 303).

The intrinsic fragility of the finance-dominated accumulation regime

The régulation mode was deeply transformed by neoliberal reforms, including deregulation and re-regulation, privatizations, financialization, and a deepening of internationalization. A diversity of accumulation regimes emerged from previous ones, translated into distinct national and regional trajectories. Yet some common trends in Organization for Economic Cooperation and Development (OECD) countries are noticeable, notably a shift in the hierarchy of institutional forms. All institutional forms became largely affected by finance, including the redefinition of the state-economy relationship, competition forms, and insertion in the international regime. While the Golden Age was dominated by the wage-labor nexus, wages reverted to an adjustment

variable in the finance-dominated regime. A decisive shift in power relations at the expense of labor took place, reflected in the fall of wage shares across OECD economies and widening inequalities. SSA contributions highlight that in the US during the 1970s and 1980s, income inequalities rose as a result of efforts to maintain the profit share. Kotz (2015: 11) argues that wage stagnation, supported by powerful forces driving 'disequalization,' is now at the heart of neoliberal capitalism.

In a nutshell, the pattern and pace of contemporary accumulation in OECD countries is increasingly shaped by financialization, to varying degrees and modalities, and typically characterized by *slow* and *fragile* accumulation (Stockhammer 2009). In major economies the investment/profit ratio shows a declining trend. With the dominance of shareholder value (Lordon 1999), there is a shift in management behavior from 'retain and reinvest' to 'downsize and distribute' (Lazonick & O'Sullivan 2000). Financialization may accompany stagnation or increasingly volatile growth that, in some cases, has emerged in the form of temporary consumer credit-led growth. Wages' flexibilization, growing unemployment, and acute international competition have exerted downward pressure on domestic demand, leading to strategies that are either not viable in the long run or not generalizable. Some countries like the US exhibit a credit-fuelled consumption-driven growth model with large current account deficits, while others like Germany and Japan demonstrate an export-driven growth model with low consumption growth and large current account surpluses (Stockhammer 2009).

This regime displays poor performance in terms of economic, environmental, and social outcomes, and is ultimately unsustainable. Unregulated financial markets are prone to endogenous instability (Orléan [2011] 2014), and macroeconomic shocks from the financial sector have become more severe and frequent, expressing the growing contradictions of this

regime. The Global Financial Crisis (GFC) of 2007-2008 signals the opening of a major crisis of this regime, the overcoming of which is radically uncertain (Boyer 2009). SSA contributors emphasize the necessity of engaging in more social contestation (Reich 2009). Boyer (2015) highlights the prominent role of political factors both in the institutional lock-in of financial hegemony and in finding a way out of the crisis. Other Régulationists emphasize a conflict of régulation. In the field of the wage-labor nexus this conflict expresses the inability to retain previous Fordist compromises, represented by the decrease of the labor share of income. It also reveals an inability to adapt to emerging tendencies—like social spending as an increasing factor of economic growth—to build new compromises (Michel 2013).

Synchronic diversity in capitalist systems and beyond

Multi-level diversity within Golden Age capitalism

In the Golden Age, the national level was the determinant. There was a broad diversity of trajectories linked to idiosyncratic national configurations of institutional forms. For instance, Germany's diversified quality production model (Streeck 1995) and the versatility and professionalism of German workers contrasted with Fordist standardization. Contrastingly, Japan exhibited certain Fordist elements without the wage compromise, including parallel growth in the capital goods and consumption goods sectors, a virtuous cycle in mass production and mass consumption. Wages were influenced by business cycles and not indexed to productivity, and investment was pulled by profit rather than demand (Inoue & Yamada 2002). The micro- or meso-corporatism of large Japanese companies and Toyotism were also distinctive features.

At the meso level, there were non-Fordist sector-based dynamics even in Fordist accumulation regimes like Golden Age France. An interesting case is the construction sector, as it experienced strong capital returns together with weak labor productivity. Because of the heavy demand from leading manufacturing sectors to the construction sector, a transfer of productivity gains took place. Construction also played a key role in spreading Fordist consumption and production norms throughout the French economy, thereby supporting the establishment of an intensive accumulation regime (Du Tertre 2002: 205). Overall, there is a vast diversity of sector dynamics governed by specific rules and technical constraints.

It should be stressed that RT is a multi-level institutional theory, rather than merely a macroeconomic theory. Disaggregated analysis is also possible at the product level—for example, agricultural goods such as wine, poultry, and vegetables (Bartoli & Boulet 1990). As Saillard (2002: 186) identifies:

At this level the main aim of the analysis is to explain the social definition of an accumulation base. Enormous diversity in configurations is possible and obviously it is more complicated to trace them back to macroeconomics. On the other hand, this type of 'micro-institutional' approach broadens the analysis of micro-patterns, the advance of crisis and potential elements of change.

Diversity in developing economies and beyond capitalism

There is a wealth of studies investigating accumulation and régulation paths around the world. However, Africa is the least-analyzed continent. Latin America exhibits a huge diversity of regimes and institutional forms, with the common feature that accumulation regimes are dominated by the mode of insertion into the international regime (Boyer 2012; Régulation Review 2012). North-East Asia (Japan, South Korea, China) is also a fruitful ground for Régulationist studies (Boyer *et al.* 2011) and, more recently, South-East Asia (Régulation Review 2013, 20152014). The rise of China's accumulation centers redistributes industrial powers and impacts on other Asian accumulation regimes, triggering institutional changes even in more developed countries. China tends towards overaccumulation and faces difficulties developing new drivers of growth besides investment and export, despite recent wage increases. Social and territorial inequalities and environmental conflicts also polarize Chinese society.

The Régulationist framework has also been applied to centrally-planned economies (Chavance 1987). These economies were initially characterized by an extensive accumulation regime performing accelerated industrialization, overinvestment, and drastic consumption curbing. Régulation through shortage dominated—ubiquitous chronic shortages of the labor force, inputs, and production and consumption goods leading to a discontinuous work process ('arrhythmic Taylorism'), labor hoarding, incremental process innovation rather than disruptive technical change, and severe consumption rationing. This resource-constrained accumulation regime contrasts with the canonical capitalist overproduction tendency. In the 1970s, because of these systemic constraints, these economies failed to switch to an intensive accumulation regime incorporating radical innovations and diversified production and consumption patterns. This resulted in a sharp downward trend of growth and a structural crisis, followed by a systemic collapse. Although homogenizing, the Soviet system was characterized by specific, historically-grounded trajectories that shaped partially its transformation from the 1990s onward.

Some avenues of research: ecologies of accumulation

Both the Régulationist 'Sectors and Territories Network' and the SSA spatialization school place special emphasis on the manner in which accumulation regimes produce differential results at differing spatial scales. There are synchronic complementarities between dissimilar but interrelated accumulation regimes. In a context of increasing transnationalization, it is particularly important to investigate the *complex ecology of accumulation regimes*, in terms of the "co-existence, structural coupling, mutual conditioning, and co-evolution of different, but compossible accumulation regimes and modes of regulation" (Sum 2015). Let us think of 'Chinamerica' or, within Europe, how German mercantilism feeds on Eastern Europe dependent industries and the debt-driven accumulation of Southern European countries. Dominant countries are able to impose costs on other spaces or future generations. This ecology of accumulation regimes has to be coupled with ecological prospects.

From the early developments of capitalism to its contemporary forms, the *ecological dimension of accumulation regimes* is a highly pressing issue. Sombart (1927: 1137-1155) shows that capitalism flourished by robbing the soil, felling the forests, and drawing on irreplaceable mineral resources. The greater part of capital goods, he argues, represents not annual income but the consumption of man's natural patrimony. The acceleration of accumulation in capitalist centers went hand-in-hand with the great acceleration of the environmental destruction that typifies the so-called Anthropocene. Recent works demonstrate that unequal ecological exchange is a crucial factor in accumulation, from imperial Great Britain to the Pax Americana (Bonneuil & Fressoz 2016). Dominant accumulation centers are able to fuel their accumulation with artificially cheap resources from the periphery of developing countries, and largely externalize

the ecological costs and constraints while improving the ecological quality of their territories. Despite the early Régulationist work by Lipietz (2002) on the society-environment relation, and significant advances more recently (Rousseau & Zuindeau 2007; Boyer 2015), this relationship is not systematically integrated into Régulationist studies. This should change, as there is increasing evidence that the Anthropocene is foremost a Capitalocene (Bonneuil & Fressoz 2016).

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Notes

¹ Notwithstanding, Post Keynesians and Régulationists engage in fruitful collaborations (*Régulation Review* 20102011).