Régulation Theory: From Textbook to Research Agenda

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On Robert Boyer's *Économie politique des capitalismes. Théorie de la régulation et des crises*

Julien Vercueil

Some books mark an era. With his *Économie politique des capitalismes* (The Political Economy of Capitalisms), Robert Boyer has written a treatise that summarises forty years of research by economists of all nationalities, under the regulationist banner. It is because he is one of the founders of this school and one of its most important contributors, and especially because he has tirelessly shown steadfast loyalty to his initial aims since the early 1970s, that Robert Boyer is one of the very few economists who could undertake such an endeavour. It is also why, despite being subjective, this book will nevertheless be regarded as authoritative.

The book can first be read as a textbook. The reader is led step by step through the basic concepts of the regulationist approaches and their method. These are compared to the conceptual constructions of the standard, Marxist or Keynesian theories. The concepts are articulated with one another (no fewer than 67 diagrams and charts are included for this pedagogical purpose – something that must be some sort of publishing record…), and the reader can assess their level of coherence through a few formal models used as illustrations. Lastly, the reader can follow the author as he plunges these concepts into the great empirical sea to observe how they behave in the face of actual situations. As such, this book shows how much an oversimplification it is to confine régulation theory to an update and analysis of "Fordism".

More than a textbook, this work is also an essay that tackles complex historical and theoretical issues. One by one, China's economic expansion, the EU crisis, the imbalances being spread by a finance-driven growth model, the persistence of income inequality during periods of growth, the role of political regimes in sustaining economic trajectories, the interrelations between the forms of institutions that constitute capitalism, the role of economic rent, the environmental limits to global growth – all these topics are given an analytical interpretation that combines the tools of régulation theory coherently and personally. The essay thus opens itself up to critical debate by researchers who claim to belong to the regulationist movement and by anyone who agrees with the idea that in economics, "institutions matter".

Lastly, the book is a contribution to the régulation theory research program. It does not ignore the obstacles to the development of this theory, but instead highlights these obstacles, suggesting paths to overcome them. The points of disagreement that the reader might have with any of Boyer's proposals are invitations to resume research and extend it as far as possible in order to enter a dialogue with the theory's results, which are never set in stone. Thus, the régulation theory research program helps draft responses to the crisis that, through the economy, has taken hold of the entire field of economics.

1. A textbook of regulationist analysis

In forty years of various developments, régulation theory (RT) has developed a complex analytical architecture that this book endeavours to explain systematically, in a pedagogical effort aimed at young researchers interested in the institutionalist approaches of economics.

- **In the beginning, there were institutions**

Régulation theory fits into a long list of institutionalist economic approaches. Along with sociology and political science, these approaches share the assumption that there is no capable individual without an institution. Boyer describes this idea:

> One cannot conceive of a pure economy, i.e. one that would be devoid of all institutions, all forms of law or political order. The basic institutions of a market economy suppose [the existence of] actors and strategies that are not economic (p. 34).

As such, RT opposes the standard individualist view that takes the agent as a "homogeneous gobule" of "pleasures and pains" (Veblen, 1899) programmed by his desires, a programmer of his consumption.

Boyer uses a narrow definition of institutions. This definition will be discussed critically later on in this review. For now, we would merely note that this definition is quickly replaced with a broader conceptual construction that is found at the foundation of the earliest regulationist research: *institutional forms*. These "hidden institutions of a market economy" (p. 17) – at least, hidden for a standard theoretician – simply make it possible, by stabilising social ties, for production, trade, wage-earning and ultimately capitalism to develop. According to TR, there are five such institutional forms (hereafter "IFs"), and they cover "the management of the payment and credit system" (*monetary regime*, p. 22) and "the price formation process, which corresponds to a standard configuration of relations between market participants" (*form of competition*, p. 26); the IFs also consist of "general rules that govern salaried employment" (*wage–labour nexus*, p. 28), as well as "institutionalised compromises that [regulate] the trend in public spending and revenues" (*form of state intervention*, p. 46); lastly, they organise "the [socioeconomic] relations between the nation-state and the rest of the world" (*international regime*, p. 46). Altogether, they form an institutional configuration, i.e. an historically situated arrangement of these IFs that evolve in tandem over time and maintain complementary and hierarchical ties with one another, while interacting with technical and political changes (pp. 50–2).

- **Regulation: Who or what regulates? What is regulated?**

At cruising speed, a given institutional configuration participates in the *mode of regulation* (MR) of the economy. The MR is defined as the set of processes that provide a coherent and viable basis for the institutional forms of a capitalist economy, for a certain period of time (p. 33). By construction, this viability is never necessary, but always contingent. It depends both on factors that are external to the economic sphere – because modes of regulation "result from the interaction between the economic sphere and the juridico-legal sphere" (p. 34) – and on the historical development of these IFs. This development eventually produces the conditions that make an economic crisis possible.

What the MR regulates is the *accumulation regime* of the economy. For Boyer, describing the accumulation regime (AR) amounts to formalising "the lineaments of a long-term growth model" (p. 59) of the economy. Why focus the analysis on accumulation, and not simply on growth? Because RT is interested in capitalisms, not in the market economies of standard economic theory. Capital accumulation is at the heart of the evolution of capitalisms: through its own dynamics, accumulation supports the expansion of capitalism, but also precipitates it into crises. Thereby building on Marxist theories (as well as those of the Austrian School), RT emphasises the constant trend towards capital overaccumulation. In reaction to this powerful underlying trend, the mode of regulation continuously aims to renew the conditions for stabilising the accumulation regime. The conjunction of an MR and an AR is referred to as a *mode of development* (p. 62).

- **When the mode of development undergoes a crisis**

One of the essential aims of RT is "to analyse then formalise simultaneously a mode of regulation and its crisis forms" (p. 7). RT is even more capable of theorising crisis because, unlike standard economic theory, it "does not postulate that an institutional configuration exists that provides an optimal mode of regulation in every time and every place" (p. 33). Likewise, RT draws "all the consequences of the absence of a canonical accumulation regime. Each accumulation regime has its own form of crisis" (p. 45). When the mode of development undergoes a crisis, all its components are affected: "crises are the very translation of the traits of the mode of regulation and the accumulation regime" (p. 81).

One possible source of crisis is discord between the temporalities of action and evolution of IFs:

> Each institutional form develops its own temporality [...]. The financial regime is the one with the shortest reaction time [...]. Competition sets in motion the accumulation process, which must face the longer temporality of the wage–labour nexus [...]. The temporality of innovation is longer than the one that characterises competition by the reduction in prices of standard products [...]. Demographics introduces yet another different timescale, [...] Habitus, representations and standards [...]. Lastly, the time of ecological processes introduces an additional dimension to this hierarchy of temporalities (pp. 129–30).

We see here the importance of the irreversibilities that characterise the temporal processes in the conceptualisations of RT. The telescoping of temporalities leads to conflicts in incentives and constraints on economic agents. These disadjustments eventually accumulate and set the stage for a crisis. Yet these incoherencies in the rhythms of institutions are far from the only sources of crisis.

RT offers a plethora of typologies. Thus, in Boyer's book, we find IF, MR and AR typologies. RT also produces a typology of crises (p. 84). The first type of crisis is linked to external shocks; the 1973 oil shock is one example. Then there are endogenous (or cyclical) crises, which express the prevailing mode of regulation, such as the business cycles in the nineteenth century. Crises of the mode of regulation are deeper, showing the limits to the corrective capacities of the MR, in light of the existing accumulation regime. The Great Depression in the US in 1929–32 is one of these. An additional degree of severity occurs when the accumulation regime itself is in crisis. Here, RT uses the term "major crisis". In such cases, "the most essential institutional forms" are challenged. In Boyer's view, the 1997 Asian financial crisis and the Japanese crisis of the 1990s fall into this category. Lastly, a structural crisis of the *mode of production* (this expression is borrowed from Marxism and contrasts capitalism with traditional domestic economies or Soviet-type economies) affects the foundational institutions of the society and the economy. The collapse of the Soviet system in the late 1980s is an illustration.

If we adopt a Schumpeterian view of crisis, it can be interpreted as a process of creative destruction of the institutions that characterise the MR. It is not difficult to pinpoint the start of a crisis in a mode of regulation, or even an accumulation regime – in Japan, for example, the crisis was "evidenced by the failures of public spending stimulus policies or by a monetary policy of near-zero interest rates" (p. 90) – but it is much harder to forecast what may come out of a crisis. On this level, we note one peculiarity of RT *qua* historical theory: namely, the great caution of most RT economists – including Boyer – with regard to making forecasts:

> We can only observe *ex post* whether a viable modality for interaction between politics and economics emerges (p. 44),

which would signal the emergence of a new mode of development.

- **Régulation theory is also a method**

Compared to the standard or Keynesian approaches, the regulationist approach is not strongly normative; Boyer considers it to be "more analytic than normative" (p. 198). Conversely, with regard to methodological questions, RT lays out relatively precise rules of method and clearly asserts its methodological specificity vis-à-vis the approaches that preceded it.

RT's first claim relates to the interconnection between the theoretical and the empirical. The subtitle of Boyer's book uses the term "theory", although the epistemologist Claude Mouchot (1996) prefers to speak of "approaches" to describe regulationist productions. Moreover, Boyer acknowledges – perhaps with a reflexive nuance – that "economists probably abusively use the term 'theory' to designate an *ad hoc* model" (p. 156); throughout his book, we find several examples of such *ad hoc* models. Yet what matters is not this semantic distinction so much as the research method. In RT, the theoretical edifice is not built using a hypothetico-deductive method (or allegedly hypothetico-deductive, along the lines of the *ex post* hypotheses and models of standard theory that fill scientific journals). Instead, it uses abductive reasoning, i.e. a series of explicit back-and-forths between concepts and observations. As explanations are built *ex post*, they lead to *ad hoc* theories. However, Boyer distinguishes between

> *ad hoc* in the good sense – i.e. in agreement with stylised facts drawn from observation – [and *ad hoc*] in the pejorative sense – in this case, resulting from a subjective choice based on a particular view of the social world (p. 156).

Thus, when speaking of theories, there are at least two *ad hoc* forms. Here, the regulationist method is unique in that it does not fall into what Hayek described as the "misery of historicism", while claiming the historicity of the theory.

The regulationist analytical framework is broad enough to welcome different interpretations of a single historical series of events. As such, RT is presented as "voluntarily under-determined: it is up to empirical analysis to specify the nature of the institutional forms for a given economy and period" (p. 47). TR stands apart from Neo-Marxist theories by renouncing visions that are "grandiose" and all-encompassing, but slightly disconnected from empirical questions. Instead, RT elaborates the "intermediary concepts" of IFs and the accumulation regime. The accumulation regime concept, backed by the national accounts of the economies in question (an approach that presupposes updated and regular data, robust enough for examination), makes the analysis more precise. Compared to Marxist reproduction schemes, this concept has the advantage of resorting to more diverse explanatory factors than the mere combination of the wage–labour nexus and competition forms (p. 40).

Another methodological specificity of RT is its focus on the realism of its hypotheses. Thus, the MR concept stands apart from the equilibrating automatisms of standard economic theory due to the fact that, to fulfil its role, it does not require unrealistic conditions for the cognitive capacities of economic actors: to "reproduce, from one period to the next, the prevailing institutional configuration without any major alterations", there is no need to resort to "interiorisation by the economic actors of the overall rules governing the entire system" (p. 48), precisely what is required by the hypothesis of rational expectations, the improbable cornerstone of standard monetary theory.

Nevertheless, the methodological precautions taken by RT have a downside: the limited impact of the theory on society and especially decision-makers.

> Institutionalists are proponents of systemic causality, which is difficult to transpose into public debate [...] By construction, [regulationist approaches] shy away from proposing a general recipe that would just need to be followed, before any precise analysis of the local and historical context [...] Worse, [in the current context] they contribute to the despair of political leaders because they regard action on the traditional levers [of economic policy] as no substitute for reshaping institutional forms, necessary for another mode of development to emerge. Lastly, by clearly stating the importance of political coalitions in the viability of any strategy for ending a crisis, [these approaches] introduce a relativism that proves to [their] opponents that [RT] is not a scientific theory, because it rejects strictly economic determinism" (p. 197).

From this point, the book moves on to a more problem-oriented dimension, similar to an essay rather than a mere textbook. We intend to explore this dimension in the next section of this review.

2. An essay on political economy

The empirical problems handled in the book are too numerous to be described exhaustively in a simple book review. We will choose to focus on those that seem to illustrate the author's specific tonality within the regulationist movement. We will also focus our discussion on these problems.

- **In the old industrialised countries: After Fordism, the deluge?**

In regulationist research, debates have raged for the past three decades as to the putative successor to Fordism. In the US, the birthplace of Fordism, the crisis of this mode of development was made visible by "the exhaustion of previous sources of productivity gains"

(p. 66), which in turn grew out of the conjunction of a unique technico-economic trend – the increasing differentiation of products – and the socio-political contestation of assembly-line work.

However, Boyer provides a precise analysis of the chain of events leading to Fordism being replaced after its crisis. In a first stage, the opening up of trade and finance triggered a shift in the IF hierarchy: the wage–labour nexus, which had until then imposed its own dynamic on the other institutional forms, was gradually dominated by the international regime, which tended to impose its own rules. The Keynesian monetary regime was replaced by the monetarist regime, which, due to the collapse of the international monetary system (this all takes place in the 1970s), led to a conjunction of unstable currencies and a rise in real interest rates. This weighed on investment, while the state, no longer able to monetise its deficit, began to build up debt (pp. 243–5). In a second stage (in the late 1980s), global competition grew more intense, while also becoming financialised. Labour – and with it the wage–labour nexus – came against competition on an international scale, thanks to the increased mobility of goods and capital, whereas a standard of high financial returns took hold in the regime of competition between firms.

> The power of financial agents to mobilise masses of capital based on their view of the future sets in motion the whole of society and causes a succession of credit-driven phases of expansion, suddenly interrupted by a reversal of expectations (pp. 245–6).

This "second major transformation" is characterised by a "process of liberalisation that challenged most of the institutions and organisations that had enabled global growth after the Second World War" (p. 10). Has it given rise to a full-fledged mode of development, driven by the financial sector? The corresponding accumulation regime is deemed to be "viable but, ultimately, plagued by instability" (p. 98), insofar as the wealth effects caused by financial accumulation can, in the short and medium terms, support global demand, but inevitably run up against the exuberance of this very accumulation, which degenerates into speculative bubbles. Crisis emerges from the fact that there is "a threshold above which financialisation destabilises the macroeconomic equilibrium" (p. 100). Monetary regulation must simultaneously make sure that the economy is open to international finance and that no financial bubbles occur, but it can no longer be successful in this twofold mission. The gap widens between the return on economic capital and the return on financial capital, signalling that this regime is unsustainable in the long term (pp. 101–2).

The Economic and Monetary Union (EMU) of the European Union took shape against this fundamentally unstable backdrop. Without going into detail on the author's observations on this subject, we would note his emphasis on the lack of political legitimacy for this mainly top-down institutional construction. Granted, a "Europe of rules" was built, but not a "Europe of transfers", or at least, not on a scale that would legitimise it by curbing the rise in inequality. By denying the obvious fact that monetary stability does not necessarily lead to financial stability, the European elites assumed that the former would be enough to support the euro's legitimacy. The faulty exogenous money supply hypothesis, embedded in the monetarist theory that inspired the form given to the EMU, contributed to policy-makers being blinded to the "speculative bubbles linked to the boom in private lending, facilitated by low nominal interest rates" (pp. 264–5). More broadly, as shown by Michel Aglietta and Thomas Brand (2013) in their work on the topic:

> all the member countries of the monetary union are supposed to have the same type of regulation, apart from size effects. If, however, the productive capacities, the quality of the public system and the international insertion of Greece are totally different from those of Germany, then the single currency will exacerbate the macroeconomic divergences. This is effectively what has been observed, which is in no way a surprise (p. 265).

Apart from the European case, Boyer considers one of the major challenges facing RT to be the difficulty in characterising the forthcoming accumulation regimes in mature capitalisms. After the 1970s, these capitalisms have not suffered any shocks strong enough to unsettle them, but instead a succession of "trials and errors in the face of radical uncertainty that has hardly diminished" (p. 311).

- **Characterising an emerging capitalism: The case of China**

The second major challenge for RT comes from China. What explanation can be given for the long period – more than three decades – of expansion in China with no major crises, even as so many indicators – "overaccumulation", "inequalities in the status of urban and rural inhabitants", "magnitude and frequency of social protests", "explosion of inequalities" (p. 220) – show that tensions are building up?

Boyer's main thesis is that despite its degree of commercial openness and its participation in globalisation, China's mode of regulation remains dominated by national institutional forms. Social compromises are rooted in "the partial alignment of the interests of the political class with those of the entrepreneurs", supporting a sort of "local corporatism" (p. 218) encouraged by the central authorities, who view this as the surest way of cashing in on – and prolonging – the Communist Party's political monopoly.

Admittedly, accumulation in China is driven by explosive and long-lasting productivity gains. Yet these gains are mainly based on a massive shift from low-productivity agricultural jobs to more productive industrial and service jobs, and on the incorporation of foreign technologies (Asian and Western) into the national production system, with such technologies being obtained in exchange for access to a huge, strongly-expanding market and a very low-cost workforce, in a stabilised institutional context (pp. 218–9). The "nearly continuous decline in the labour share of national income" (p. 222) is the most certain indication of the profoundly destabilising character of the Chinese accumulation regime. It is also one of the reasons behind its commercial expansionism internationally, which Boyer interprets as a projection abroad of the fundamental characteristics of the national mode of regulation.

- **Globalisation and the "three-body problem"**

The interpenetration of national economies has curbed each political system's capacity to guide macroeconomic trends within its own territory. Moreover, globalisation has consolidated the "hegemonic blocs" – i.e. the political coalitions that can remain in power over a long period of time, according to the terminology used by Gramsci (1978) and Poulantzas (1968), and adopted by Boyer – within each nation-state. In the US, the interests of multinational firms are faithfully promoted by the Republicans and by the Democrats, regardless of which party holds the White House. In Europe, the elites who are the winners of globalisation work assiduously to prolong the sacrifices imposed on the workforce in order to respect the single currency's founding rules. In China, WTO membership has increased the influence of modernisers within the CCP, who have imposed their view of the conditions for stabilising the social pact by continued liberalisation of the national economy and opening it up to foreign capital.

The world has gone from being bipolar (with capitalism and socialism facing off until the 1980s) to tripolar, with the weakening of the US, the gradual affirmation of the EU as the world's largest commercial bloc, then the emergence of China as an industrial power (p. 277). This trinity of powers, more or less unstable, is replicated in a structural tripolarity: industrial capitalisms, on one side, with rent economies rich in natural resources and finance-dominated capitalisms on the other. In theory, the coevolution of these three forms of capitalism is likely to cause chaotic trajectories – as an analogy to Henri Poincaré's "three-body problem" (p. 258). Yet in practice, the conjunction of the Chinese, US and European modes of regulation has avoided any major crises up to now, despite ever heavier threats to their accumulation regimes: in 2009, China's stimulus measures prevented the international financial crisis from becoming a depression like in the 1930s. In 2011, the EU's austerity policies were offset by the pragmatism of US monetary policy, which supported growth (p. 277).

These analyses, added to those (not presented here) of dependent capitalisms and rent regimes, confirm that "internationalisation has increased the diversity of capitalisms". In Boyer's view, "taking [this diversity] into account has become necessary to understand their combined evolution" in the processes of globalisation (pp. 278–9). We must now turn to the possible future developments of RT in this direction, as well as the tools at its disposal. Here, we will look at the research program put forth by the book.

3. A research program

Recent developments in RT have introduced a series of new issues that have yet to be researched thoroughly. Boyer's book addresses, one after the other, the various types and levels of institutions (chapter 5), the institutional configurations of contemporary capitalisms and their evolution (chapters 6 and 8), incorporating the political aspect (chapter 7), and the various levels of regulation and the transition from one mode of regulation to another (chapters 9 and 10). For the purposes of this review, we will present and discuss two questions that run through these chapters:

1. What are the relevant concepts to deal with regulations that go beyond the national framework?
2. How can institutional evolution be analysed systematically in RT?

- **Post-national institutional arrangements**

The institutional forms of RT are presented as concepts that establish a link between the microeconomy and the macroeconomy. Indeed, these forms are "the obligatory crossing point between macroeconomic regularities and individual and collective behaviours" (p. 132). If we accept this premise, how should we interpret the plethora of concepts added, since the 1980s, to the IF concept, to strengthen RT's explanatory power?

- The notion of *productive models* was introduced in research by the GERPISA Group to reflect the fact that the productive sphere is an historically-situated social construct.

This notion describes both the heterogeneity of the organisational configurations exhibited by the sectors and channels of a national economy, and a form of homology identifiable in productive organisations that are *a priori* disjoined from a geographic, legal or economic standpoint (pp. 135–7).

- The notion of *social innovation systems* borrows and builds on the notion of national innovation systems developed by Neo-Schumpeterian theory. It aims to describe the mode of operation of systems of training, R&D, production and commercialisation whose objective is to respond to the imperative for new products and production processes (pp. 139–43).

- The notions of *skill–labour nexus* and *inequality regimes* refer to the way in which a society aims to resolve problems of knowledge access and management of wealth and income disparities. These social processes are generally overdetermined by prior choices regarding the role that the public authorities should play and the socialisation of spending in the economy (pp. 145–59).

- Lastly, one final theme in recent regulationist research is the social relationship to nature *"rapport social à la nature"*. In light of the growing importance of environmental issues on the economic and social levels, at the local, regional and planetary scales, what theoretical status should be given to these issues? Rather than making this relationship into a sixth institutional form, in a Polanyian approach that would emphasise the importance for society as a whole to reach an agreement on how to deal with nature, the RT authors have preferred to make it an *environmental institutional device*, i.e. "the projection of institutional forms on the space of the relationships between economy and environment" (p. 162).

For each notion, RT must resolve the question of its relationship with the five pre-existing institutional forms. It must also show how the tools it has developed enable these notions to be brought into agreement with the concepts of accumulation regime and mode of regulation:

> The prospect of a future curb on growth due to environmental constraints invites [us] to mobilise two of the contributions of régulation theory. On the one hand, taking account [...] of the various forms of irreversibility, and on the other, the emphasis on understanding processes and trajectories, and not convergence towards long-term equilibrium (p. 166).

Here again, we see one of the peculiarities already mentioned with regard to the normative character of RT: its normativity is expressed much more in terms of method than results.

- **Systematising the approach to institutions and their evolution: Why a detour through earlier research would be useful**

As an institutionalist approach, RT must be based on a coherent theory of institutions and their evolution. In this respect, despite the book's efforts to systematise the approach, readers may remain somewhat unconvinced.

The first stumbling block lies in the book's approach to the market. "Market" and "institution" are placed in opposition, as if the market were of a fundamentally different nature to an institution. In chapter 1, institutions are presented as "alternative coordination mechanisms to the market" (p. 17). Boyer, seeking "more solid bases [than a mere listing of examples of institutions] for institutional economics", does not notice the features common to both entities, namely "standards, values, conventions, legal rules, organisations, networks, the state, etc." (p. 17), while endeavouring to distinguish carefully between "institutions, organisations and conventions" (p. 33). The notion of "institutional form", defined as the result of the codification of social relationships considered to be fundamental, enables a temporary escape from the difficulties caused by this vague notion of institution. However, it quickly becomes apparent that the *institutional form* is not enough to cope with all the questions raised by RT about modes of coordination.

To address this problem, Boyer resorts to a taxonomy of institutional economics that relies on several sources: political science and economic history (Sabel, 1997, North, 1990), neo-institutional economics (Coase, 1937, Williamson, 1975), post-Schumpeterian evolutionary theory (Nelson and Winter, 1982, Dosi, 2000), economics of conventions (Favereau, 1989, Boltanski and Thévenot, 1991), and sociology (Bourdieu, 1980) (pp. 119–20). In so doing, he adopts a narrow view of institutions (as sets of formal rules) that prevents him from describing the organic ties between the "constitutional order", "the institution" thus narrowly defined, "the organisation", "routine", "convention" and "the habitus" (p. 119) – organic ties that are supposed to represent the "arrangements of atoms", which are institutional forms[1] (p. 117).

By taking this path, RT would deprive itself of a valuable source, in our view: that provided by the earliest institutional approaches. In Durkheimian sociology and American Institutionalism, one easily finds the means to restore the fundamental unity of these apparently heteroclite manifestations of institutional order: conventions, standards, markets, organisations and laws. Compared to what is proposed in Boyer's book, these conceptions have three advantages, in terms of anteriority, coherence and pertinence. To see their unity, the untrained eye must accept a broad view of the institution as "social fact" (Durkheim, 1895), or "collective action controlling individual action" (Commons, 1931). The notions of "constitution", "organisation", "market" and "routine" are manifestations, to various degrees, of the institutional phenomenon thus defined. Of course, these definitions alone do not suffice to produce a general theory. But in fact, institutionalist literature offers an abundance of complementary theoretical descriptions (Vercueil, 2013) that RT could use to gain coherence from a conceptual standpoint.

In terms of microeconomics, management science's analysis of the modes of coordination in firms (Henry Mintzberg (1979) provides an excellent typology), which goes well beyond what economic theory can currently take into account, could also be advantageously incorporated into RT. Many of the premises of management science – such as situated rationality or environmental uncertainty – and its methods – holistic individualism, abduction – resonate with the premises of RT. If we shift from a micro perspective to a macroone, with the analysis of globalisation, we note that the analytic juncture made by Robert Reich (1991) between the forms of the globalisation of production (the fragmentation of value chains), financial globalisation (and the pressures it exerts on firms' governance), the regulation failures of public institutions set up after the Second World War (holes in the tax fence of nation-states) and the new "inequality regimes" (the widening income gap for the active population of a given country) – as important a juncture as any – is now more than twenty-

[1] Boyer also uses the image of "building blocks" to describe these entities.

five years old. It could have been the starting point for the regulationist debate on these issues – a debate that may appear disappointing in comparison.

This detour through previous analyses and theories could bring conceptual developments for RT. Such is the case for the analysis of crises, for example. As a general phenomenon incorporated into the notion of regulation, a crisis signals the incapacity of a regulating system to keep the regulated system within the boundaries of viability. *Thus, it is a crisis of both the regulated system and the regulating system.* When a crisis occurs, the future of the regulator–regulated pair depends on its place in the sequencing of institutional arrangements – laws, conventions, customs, as well as organisations as collective actors – and the overall coherence of this sequencing. Almost systematically, an institution of a higher general level is activated in order to compensate for the failure of the original regulating system. The depth of a crisis is thus determined by the hierarchy of arrangements that fail one after the other: RT's "small crises", "major crises", "crises of regulation", "crises of the accumulation regime" and "crises of the mode of production" can thus be viewed in light of each society's own institutional order. Hence the value of having a hierarchy of the institutional arrangements of a given society, established as rigorously as possible. Such a hierarchy would round out the excesses and flaws in the system of "institutional forms". This is a task that, in our view, has yet to be carried out in régulation theory.

Conclusion

The exploit of Boyer's book is, like the shoemaker in the fairytale, to have answered seven questions at once:

1. What are the basic institutions of a capitalist economy?
2. What are the institutional conditions for the dynamic stability of an economy?
3. What explanation can be given for recurring crises, even after a long period of growth?
4. What are the factors for transforming the institutions of capitalism?
5. How can the various forms of crisis be analysed?
6. What are the conditions for the appearance and viability of new forms of capitalism?
7. Can both a mode of regulation and its specific type of crisis be formalised? (p. 7)

The responses given throughout the book are backed by extensive evidence and examples, even though – remarkably enough – there is not a single statistical table to back up the proposed analyses, which are nevertheless firmly anchored in real life. Yet this lack of statistical evidence is not a shortcoming because the book is first and foremost an invitation to the reader to reflect on the key concepts needed to decipher the tsunami of quantitative data that washes over all of us daily.

To make this endeavour a success, there was a colossal work of selecting, analysing and reformulating scientific material accumulated over four decades. Boyer's pedagogical skill is obvious in the clear conception and writing of this synthesis. The book can be read on several levels, a fact that broadens the audience to include students. This is crucial for diffusing the author's ideas within the scientific community. For although not yet mentioned in this review, there is an element of activism in the book. This is visible, for example, in the way that Boyer considers the structuring of the community of heterodox economists. Indeed, in a Polanyian perspective, he notes that "a movement of resistance to the violence of the market is beginning", slipping into social relationships that were previously preserved. This movement requires "a new generation of intellectuals and theoreticians" to analyse it (p. 190). We must hope that such a posterity will read a book of this importance.

References

Aglietta M. and Brand T. (2013): *Un New Deal pour l'Europe*. Paris: Odile Jacob.

Boltanski L. and Thévenot L. (1991): *De la justification*. Paris: Gallimard.

Bourdieu P. (1980): *Le sens pratique*. Paris: Éditions de Minuit.

Coase R. (1937): "The Nature of the Firm", *Economica*, 4(16), pp. 386–405.

Commons J.R. (1931): "Institutional Economics", *American Economic Review*, 21 (1931), pp. 648–57.

Dosi G. (2000): *Innovation, Organizations and Economic Dynamics*. Cheltenham: Edward Elgar.

Durkheim É. (1895:2009): *Les règles de la méthode sociologique*. Paris: Flammarion.

Favereau O. (1989): "Marchés internes, marchés externes", *Revue Économique*, 40 (1989), pp. 153–68.

Gramsci A. (1978): *Cahiers de prison*. Paris: Gallimard.

Mintzberg H. (1979): *The Structuring of Organizations: A Synthesis of the Research*. New Jersey: Englewoods Cliffs.

Mouchot C. (1996): *Méthodologie économique*. Paris: Seuil.

Nelson R. and Winter S. (1982): *An Evolutionary Theory of Economic Change*. Cambridge: Belknap Press of Harvard University Press.

North D. (1990): *Institutions, Institutional Change and Economic Performance*. Cambridge: Cambridge University Press.

Poulantzas N. (1968): *Pouvoir politique et classes sociales de l'État capitaliste*. Paris: Maspéro.

Reich R. (1991:1993): *L'économie mondialisée*. Paris: Dunod (1st ed. 1991: *The Work of Nations: Preparing Ourselves for 21st-Century Capitalism*. New York: Alfred A. Knopf).

Sabel C. (1997): "Constitutional orders: trust building and response to change", in Boyer R. and Hollingsworth R., *Contemporary Capitalism. The Embeddedness of Institutions*. Cambridge: Cambridge University Press.

Veblen T. (1899): "Why is Economics not an Evolutionary Science?" *The American Journal Sociology*, 12(4), pp. 373–97.

Vercueil J. (2013): "Vers une économie institutionnelle du changement: clarifier les concepts et leurs articulations", *Économie appliquée*, LXVI (1), pp. 31–57.

Williamson O. (1975): *Markets and Hierarchies. Analysis and Antitrust Implications*. New-York: The Free Press.