

20 Accumulation regimes

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Régulation theory is based on the idea that institutional arrangements influence the growth trajectory of an economy. The projection of this relation in a purely macroeconomic field is described as an accumulation regime. In this sense, the accumulation regime provides the schema or growth model of a national economy in a particular era.

This concept owes much to Marx's reproduction schemas and to the debates they inspired. Indeed, the approach ascribes as much importance to the conditions of production (productivity, return) as to the conditions of sale (clearance) of commodities. Although the reproduction of the system is always evident *a posteriori*, since the system continues, its requirements still present specific constraints on the possibilities of growth. Above all, while reproduction is never entirely impossible from a solely economic point of view, its scale may vary enormously.

The relationship between technical change and income distribution

At the heart of the concept of an accumulation regime there is the relation between technical progress and income distribution. This relation presents several questions. First in terms of the motors of technical progress: many authors have tried to identify the effects of innovation, mechanisation or, more generally, the capitalistic intensity of production, and returns to scale. It is immediately apparent that these different aspects of technical progress depend partly on the institutional arrangements governing growth and are partly endogenous to the mode of growth itself.

Suffice it to say that innovations were not produced in the same way by the brilliant, individual inventors of the nineteenth century as they are by internal company R&D departments, which are subject to the imperative of returns, in the second half of the twentieth century. Furthermore, the growth of capital *per capita* is evidently largely a function of the distribution of income and the prevailing rate of accumulation in the economy.

Returns to scale, which are more elusive, are also largely dependent on institutional arrangements and their historical development. At the overall

aggregate level of an economy, returns to scale are to be sought not only in firms extending their operations but also at the level of the system as a whole, in market development, transport and communication networks, concentrating on large urban centres (Chapters 21 and 22).

Technical progress involves the growth of product *per capita* and the appearance of new products. The accumulation dynamic is determined mainly by the way in which the supplementary product is distributed between labour and capital. Here again we find many different sources of influence. Of course, there is the effect of return on future investment; there are also the many different demands created by the different types of income and their consequence for the growth dynamic, in other words whether or not any virtuous circles exist.

In more general terms, the accumulation dynamic is considerably modified by the mode of reproduction of the labour force. So long as workers have strong ties with the countryside, their reproduction mainly escapes capitalist relations. From the end of the nineteenth century (somewhat earlier in the United States and later in Europe) workers depended increasingly on the market for their reproduction. This insertion of the reproduction of the labour force in the accumulation schema modifies its properties dramatically: consumption by wage earners becomes an important market.

Of course, if, as in the standard neoclassical model of growth, savings and accumulation are independent from the distribution of income between wages and profits, since the saving propensity of households does not depend on the origin of income, these effects do not exist. Likewise, it might be considered that in the medium term Say's law works well and that no problems arise in clearing the commodities produced. However, the questions raised by the accumulation regime do not concern static equilibrium in the medium term, they affect only the type of dynamic it produces (Chapters 18 and 19).

Extensive and intensive accumulation

Accumulation regimes exist in two different situations: they may be either predominantly extensive or predominantly intensive. Extensive accumulation relates to the capitalist development that conquers new branches and new markets, spreading its production relations to new spheres of economic activity, without altering conditions of production and the efficiency of labour or capital in any significant manner.

In contrast to this, in a regime of intensive accumulation, conditions of production are systematically transformed with a view to increasing the productivity of labour. New investments primarily take the form of an increase in the capital stock per worker.

This is obviously a logical distinction more than a type of historical identification, since it is common knowledge that an intrinsic characteristic of capitalism is the transformation of the conditions of production.

The industrial revolution effectively inaugurated a new historical period marked by the tendency of capital *per capita* to rise and a more or less steady growth in the apparent productivity of labour. In contrast, for the last twenty years the United States has experienced growth in the form of extensive job creation and only a slight growth in productivity – in fact in some years there has been none – suggesting renewed importance of the extensive dimension of growth. This differed from the European and Japanese economies over the same period.

Although it is difficult and reductive to classify sub-periods of capitalism directly according to predominantly extensive or intensive periods, the conditions of production of technical change have altered dramatically over time, the rate of innovation has varied, and these changes can be identified in different labour productivity growth rate trends according to period and country. This phenomenon is more evident in France, for example, than in the United States, where the growth rate of the apparent productivity of labour was in fact quite stable until the rupture of the late 1960s (Baslé *et al.*, 1999).

Fordism

Researchers have shown the greatest interest in the post-war accumulation regime. They sought to understand this remarkable period through the speed of its growth and its slight cyclical fluctuations. In reference to Gramsci's description of the situation of the American proletariat, this accumulation regime is termed Fordism.*

The post-war period is remarkable partly owing to the growth in productivity and the profound quantitative and qualitative changes that occurred in the life styles of wage earners. Studies of Fordism have stressed two virtuous circles. The first is based on the growth of the real wage in proportion to the apparent productivity of labour. This indexing of the real wage to productivity generates steady growth in the demand for consumption goods, guarantees the stability of such demand and allows the development of mass-production industry for these products. In turn, this expansion allows systematic use of returns to scale and the stability of demand allows optimal planning for investment. Productivity gains obtained in this manner are again shared with workers and a cumulative process is initiated.

The constancy of the wage share is obviously a corollary to the constancy of the profit share, which allows the self-financing of expansion investments, but rationalisation investment too. These also generate growth in the apparent productivity of labour through increased mechanisation, hence the growth in profits; this is the second virtuous cycle. In order for this process to be durable over the long term, the apparent productivity of capital must remain constant. In the event that it diminishes, growth in profits is less rapid than growth in capital stock which, ultimately, weighs on the return on capital measured for example by the profit rate.

Analysis in productive sections

As ideal growth types the accumulation regimes presented above imply a constraint on long-term reproduction equivalent to growth balanced between the fundamental determinants of technical progress, demand and the distribution of income. The study of accumulation regimes also revealed other types of regimes, which can be described as transitional regimes, since they describe periods of intense transformation of the economic system of a country and do not reflect the constraints of balanced growth. Hugues Bertrand's study of France (1978, 1983) provides the best example of this.

The problem posed by the evolution of the productive system and the living conditions of the wage-earning class quite naturally suggest a reference to the division of the productive system previously used by Marx in the reproduction schemas.

The originality of this division derives from the fact that productive activities are grouped according to the final macroeconomic destination of production, rather than by branches or sectors. With the help of an input–output table, it is possible to reaggregate the part of the productive system that contributes directly or indirectly to the production of goods and services for consumption, investment and export. This is an abstract division, since a single capital or company can belong partially to many sections. Such is the case, for example, with the production of motor cars, which are simultaneously consumption goods, investment goods and exports, depending on the buyer.

The establishment of accountancy based on productive sections provides the descriptions in terms of jobs, productivity, the investment rate or capitalistic intensity for each section.

The advantage of this type of approach for describing an accumulation regime that is interested in the links between modifications of the production system and the overall macroeconomic relation is clear.

In his analysis of France from 1950 to 1974 Hugues Bertrand presented the active role played by the mechanisation of the consumption goods section. This acted as an outlet for growth in the relative weight of the investment goods section, in addition to enabling the development of mass consumption (Appendix 20.1).

This was undoubtedly a transitional regime in so far as, in the very long term, the capitalistic weighting of production would have ultimately weighed heavily on the return on capital. Historically, however, this was not the contradiction that caused the 1970s crisis, rather it was due to a new factor: the internationalisation of the French economy. With the increased importance of foreign trade, wages appear increasingly as production costs, rather than as one of the elements in the effective demand for production. The bases of the earlier compromise cracked and it was not possible to establish a lasting new equilibrium.

In contrast, an analysis of productive sections in the United States

(Juillard, 1993) from 1948 to 1980 shows their evolution to have been in step to a much greater degree. Unlike France, there is therefore no asymmetrical dynamic between sections to act as a motor of accumulation. It can be inferred that at the end of the Second World War the American economy had already reached a level of maturity in its mode of accumulation. This reinforces the idea that analysis of productive sections is a special instrument in the study of economies in transitional phases and implies a modification of the relation between large macroeconomic functions (Appendix 20.2).

The crisis of Fordism

The slowdown in labour productivity in the late 1960s, which played a fundamental role in the development of the American economy in the following two decades, appeared to affect all productive sections in the same way. It is therefore necessary to seek its origins elsewhere than in the intersectional dynamic. Although the explanations commonly advanced are always very partial, they refer to aggregate phenomena, for instance exhaustion the scope for productivity gains in the Fordism technological paradigm, stronger resistance to the mode of labour organisation in large-scale mass-production industry and saturation of the needs that can be satisfied by mass production.

The differing evolution of employment in the United States and in Europe during the 1980s and 1990s is a good example of the use of the concept of an accumulation regime. In the United States employment growth was accompanied by a dramatic slowdown in productivity gains and stagnation, sometimes even regression, in real wages. In Europe, by contrast, the growth of employment, traditionally weaker than in the United States, practically stopped, while mechanisation and productivity gains continued to show definite if slow progress.

It is clear that the two growth modes have a profoundly different internal logic. Likewise, these growth modes have sufficient coherence to remain dominant over extensive periods, despite the serious problems involved: the extension of poverty and the number of wage earners living below the poverty line in the United States; mass unemployment and the re-emergence of poverty and social exclusion in Europe.

Beyond the simple accounting equivalence, which claims that at the same production growth rate a slower growth in labour productivity is accompanied by a higher employment growth rate, original mechanisms can be distinguished which reinforce basic tendencies. In the United States, for example, stagnation of the real wage *per capita* contributed to an increase in the rate of participation of women in the labour force, in so far as this allowed a degree of growth in real household incomes. In turn, this development favours the increase of the labour force and attenuates the risks of social tension inherent in the stagnation of real individual wages.

Finally, the Fordist regime gave way to largely extensive accumulation, still centred on mass consumption but differentiated by income disparities.

A tool for analysing underdevelopment

The description above shows that Fordism is only one accumulation regime among a great variety defined by the combination of at least three factors. First of all, the nature of technical change in the extent to which it may affect productive sectors differentially. Next, the level of contribution of wage income to the dynamic of the means of consumption section, with possible variants depending on whether inequalities remain stable or participate in the completion of accumulation. Finally, the degree of extraversion of the economy is a factor that is measured through the construction of an export section, whose revenue serves to finance the two other productive sections. As described in Chapter 33, the accumulation regime of small open economies is original in this respect (Biesmans, 1988; Cassiers, 1989).

In terms of formalisations, it is necessary to examine the conditions under which an accumulation regime can be established and what factors the rhythms of medium to long-term growth depend on. Some initial results were obtained in a study of Italian and Taiwanese growth (Bertoldi, 1989).

A series of empirical studies have already demonstrated that these criteria can provide an account of the diversity of accumulation regimes for some newly industrialised countries. The opening of the sectional model and the description of the export section present an interesting image of growth in Korea (Lanzarotti, 1986, 1992), but also reveal differences in regard to Brazilian growth. In Brazil the inequality of income distribution plays a determining role in the accumulation regime, since consumption is supplied primarily by the middle classes (Cartier-Bresson and Kopp, 1981), rather than by an industrial wage-earning class prefiguring a Fordist regime (Coriat and Saboia, 1987). A long-term study in Mexico demonstrated the relations between an internal blockage of productivity sources and extraversion (Aboites, 1985).

In this regard, it would be interesting to undertake a systematic comparison of the application of sectional models to developing countries, since this is undoubtedly a possible method of overcoming the limits encountered in the 1990s by the classification suggested by Latin American regulationists (Ominami, 1986).

It would also be useful to apply the exercise to older industrialised countries, since these two exercises together would enable the definition of a rigorous, synthesising and virtually exhaustive temporal and geographical analysis of accumulation regimes (Bertrand *et al.*, 1982). Furthermore, this would be a better way of revealing the constraints weighing on accumulation regimes that could potentially succeed Fordism, the list of which has been extended during the 1990s (Aglietta, 1998; Petit, 1998a; Baslé *et al.*, 1999; Boyer, 1999a, d).

Appendix 20.1 Growth and crisis in France: an interpretation in terms of an accumulation regime

From the 1950s, the establishment of Fordism was reflected in the modernisation of the consumption goods section, under the impetus of a new wage-labour nexus (Figure 20.1).

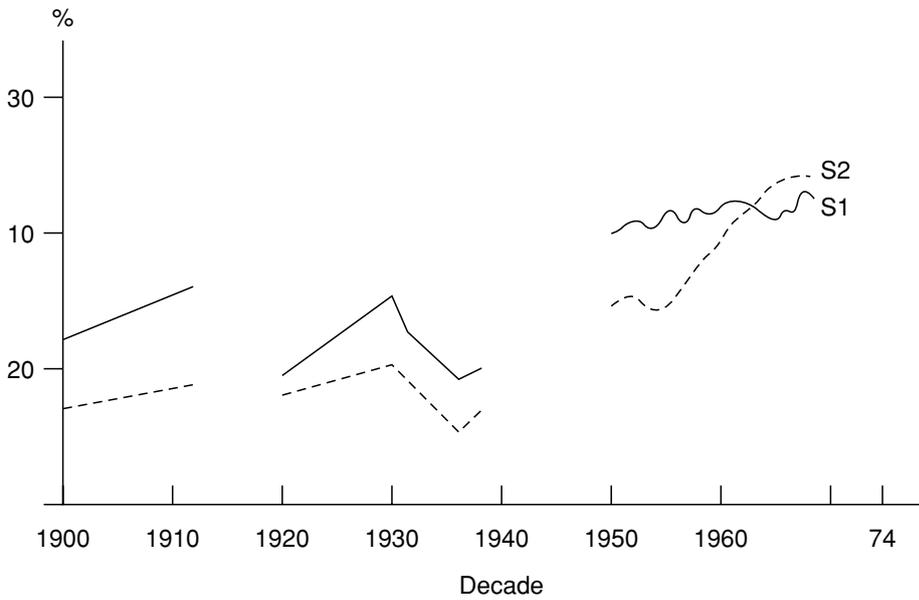


Figure 20.1 The labour composition of section 2 meets that of section 1. Labour composition = indirect labour/direct labour (%)

The double origin of the crisis (Figure 20.2): at the maturation of the modernisation of section 2, there is an increasing extraversion of accumulation.



Figure 20.2 The rate of coverage of the domestic market falls rapidly after 1967
Source: Bertrand *et al.* (1982)

Appendix 20.2 Due to precocious Fordism, the American trajectory is different

In contrast to France, a parallel evolution of capital *per capita* can be observed in both sections (Figure 20.3).

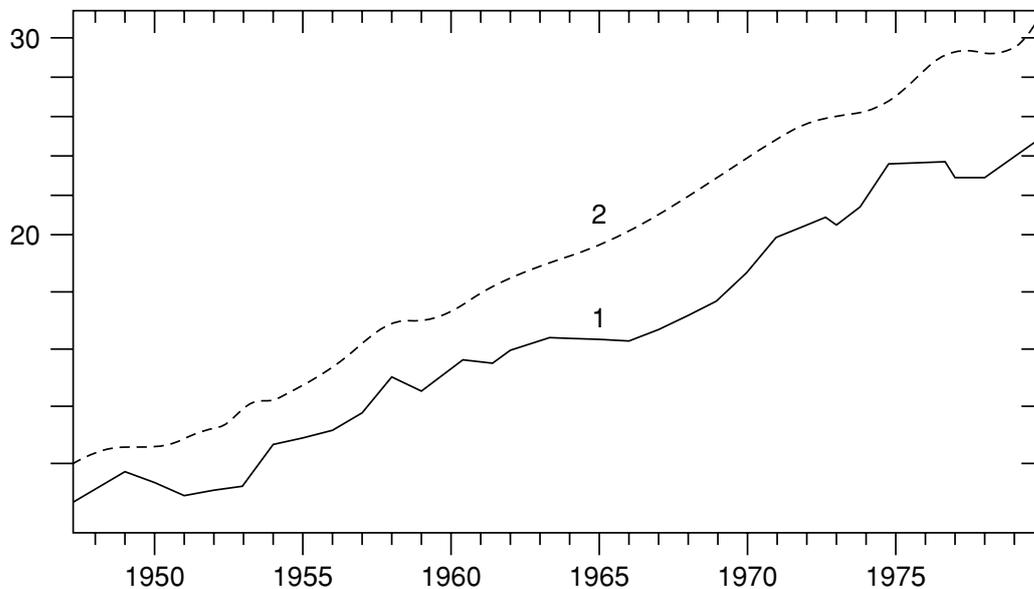


Figure 20.3 Evolution of capital *per capita* in section 1 and section 2

Consequently, until the mid-1960s, the growth of section 2 is virtually parallel to the growth of section 1 (Figure 20.4).

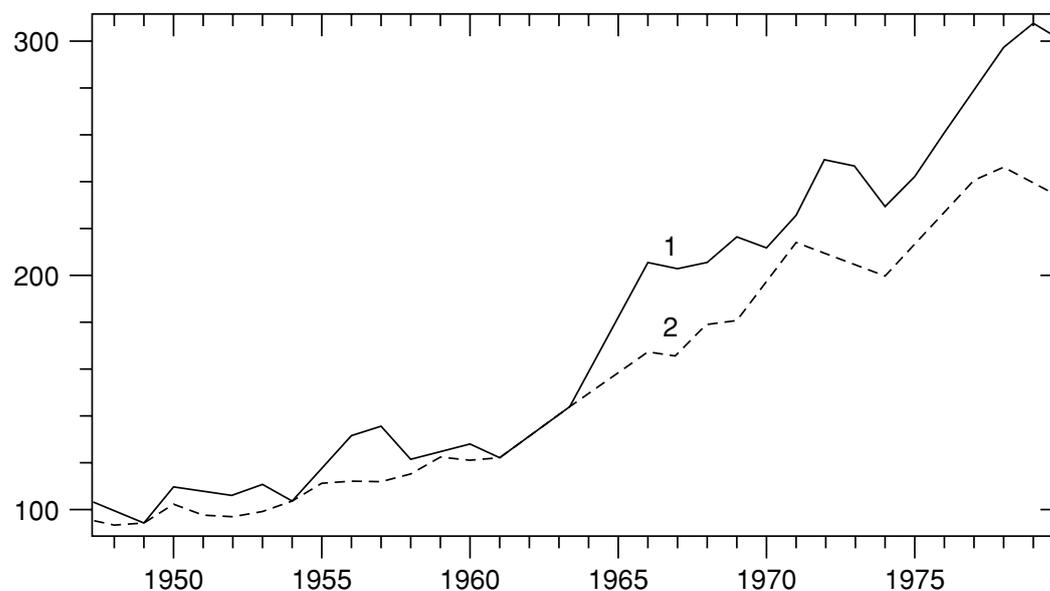


Figure 20.4 Volume of added value in both sections
Source: Juillard (1993)