*Article*

# Theory and Practice of Crisis in Political Economy: The Case of the Great Recession in Spain

Review of Radical Political Economics
2022, Vol. 54(1) 83–105

DOI: 10.1177/04866134211027243
rrpe.sagepub.com
SAGE

**Juan Pablo Mateo**[1]

**Abstract**

This paper addresses Marx's theory of crisis in order to analyze the Great Recession in Spain, a peripheral economy within the Eurozone. It demonstrates that underlying the problem of the "housing bubble" is an incapacity to generate surplus value, which in turn explains certain particularities related to capital composition, productivity, wages, and finance. The article further carries out a critique of both orthodox and heterodox approaches that focus on (1) profit squeeze caused by labor market rigidities, (2) underconsumption due to stagnant wages, and (3) finances, interest rates, and indebtedness

**JEL Classification:** B14, E11, E20, E43, J30

**Keywords**

theory of crisis, profit rate, Spain, housing bubble, interest rates, wages

## 1. Introduction

This article analyzes the economic crisis in Spain from a political economy perspective based on the labor theory of value, with a double objective: (1) *theoretical*, showing the dichotomy between materialist and subjectivist theories of crisis; and (2) *empirical*, offering a characterization of Spain's recent Great Recession (GR) and surrounding controversies, which requires the logical ordering of the roles of profitability, capital composition, and productivity, together with finance and income distribution. The analysis studies the growth period from 1995 to the second half of 2008 (although the macroeconomic trend began to change from 2007), the subsequent recession until 2013/2014, and the resumption of economic growth, but without complete recovery of valorization until 2017.[1]

[1]1995 is taken as the starting point of the growth phase, thus including the real estate bubble that began around 1999, because the system of national accounts (NSI 2019a, 2019b) only provides consolidated data from that year on.

[1]Department of Applied Economics, Structure and History, Faculty of Economics and Business Administration, Complutense University of Madrid, Pozuelo de Alarcon, Madrid, Spain

Date received: May 1, 2020
Date accepted: June 3, 2021

**Corresponding Author:**
Juan Pablo Mateo, Department of Applied Economics, Structure and History, Faculty of Economics and Business Administration, Complutense University of Madrid, Campus de Somosaguas, Pozuelo de Alarcon, Madrid 28223, Spain.
Email: jpmateo@ucm.es

This approach highlights the centrality of the law of value and the production of surplus to explain the GR, where I support a *materialist* conception of crises (see Mateo 2019). It is thus necessary to differentiate the essential (root or "last instance") cause from direct or triggering factors. The hypothesis is that Spain's GR endogenously arose from the inability to generate a sufficient amount of surplus value, materialized in corporate profit, in relation to the accumulated stock of capital. This was the root cause of the crisis.

However, this *content* took a specific *form* in Spain, as profitability problems contributed to a regime of accumulation led by construction-fueled asset inflation, mainly in the real estate sector, by way of a housing boom. This paper shows that the crisis of valorization manifested not so much in terms of a technical change that limited the use of the labor force—as suggested by the law of tendency of falling rates of profit, in its abstract formulation—but in a process of accumulation that actually limited the capacity to generate surplus per unit of labor. This step from the abstract to the concrete, materialized in a national space of valorization, requires reference to both the particularities of the integration of Spain's economy into the Eurozone and the historical context, as well as what I call "displacement of contradictions" in geographical, social, and temporal terms.

Consequently, the way in which inner contradictions appear externally constitutes direct or triggering factors that do not coincide with the underlying cause. Indeed, the development of a speculative real estate boom explains why problems in the sphere of valorization are manifested in distributive or financial imbalances, consequently giving rise to the corresponding theories by neoclassical, Austrian, and Keynesian-associated currents of thought. Despite their differences, these approaches all implicitly coincide in a theory of crisis as a possibility, which I call "subjectivist." In the case of the GR, they highlight the triggering factors corresponding to the type of economic growth.

This article is composed of three parts. In the first, I discuss theoretical aspects with the purpose of integrating the abstract theory of crisis with the particularities of the Spanish economy, establishing the general framework for empirical analysis. Subsequently, the second section deals with the generation of surplus in Spain and the particularities of the composition of capital, in turn associated with the specific regime of accumulation. The third part essentially discusses the role of income distribution and finance in other conceptions of the crisis, revealing that their starting point for analysis is indeed a consequence of problems in the sphere of capital valorization.

## 2. The Theory of Crisis

### *2.1. Methodological Aspects*

Unfortunately, a complete and detailed account of crisis is not to be found in Marx, and yet this does not imply the absence of a *Marxist* theory of economic crisis, at least at a high degree of abstraction. Marx explains the tendency toward crisis without considering fluctuations of market prices unsupported by changes in values, precisely because he intends to show that crises are inherent to the capitalist mode of production (CMP). Rather, his theory of crisis belongs to the general theory of the reproduction of the CMP (Clarke 1994), which also reveals the central place of crisis in Marx's analysis.

Crises stem from contradictions endogenous to the CMP—that is, they are inherent to the social form of capitalist production, and hence to the fundamental structures that define the capitalist system as such (Smith 1990). This is a *materialist* conception of crisis since it is not ultimately explained by human intervention but rather by the structure and social relations of the economic system that condition and limit human actions (Cohen 1978; Mateo 2019).

In this holistic approach, the capitalist society at the global level is not a mere aggregation of elements, but a structured unit or historically specific totality.[2] Its reproduction is not arbitrary but follows a logic, materialized in sociohistorical, objective, and tendential laws of movement (Mateo 2018). Moreover, "the most important law of modern political economy" (Marx 1857–58: 133 [MECW 29]) is the tendency of the rate of profit to fall (LTRPF). Accordingly, analytical priority is given to the production process, whose core is the generation of surplus value. The relevance of the law of value is justified because production, which is *content* common to all societies, assumes the *form* of capital valorization in the CMP.[3]

Not only is capitalist reproduction subject to deep turbulences, imbalances, and volatility, but capital accumulation implies the periodic recurrence of crises (Carchedi 2011; Shaikh 2016). The specific aspect of the Marxist conception of crisis is that it constitutes a necessary moment in the process of accumulation, the necessity of which is derived from both its indispensability and its functionality to systemic economic reproduction (Gill 1996). Thus, capitalist crises (differentiating from crises that occur circumstantially due to exogenous factors, as in the case of COVID-19) ultimately emerge from objective aspects of the economic structure. There can be found a fundamental cause consistent with the essence of the system, although there may be various explanatory factors and a wide variety of forces simultaneously pushing in different directions.

## 2.2. Theoretical Controversies

There are significant controversies around the Marxist theory of crisis, in turn reflected in diagnostics of Spain's GR. Arguably, these different interpretations might be largely explained not only in terms of the theory's incompleteness and level of abstraction, but by Marx's own shortcomings, among which I would emphasize the absence of an adequate integration of the abstract and the concrete, as well as financial and international aspects.[4] To a large extent, these controversies arise from, and are reflected in, the difference between *root* causes and *triggering* or *direct* factors. As both Clarke (1994) and Carchedi (2011) correctly assert, the essential theoretical problem is not to explain the specific causes of one crisis or another, but rather the regular recurrence of economic crises, endogenously generated by the very essence of capital as a social relation. Thus, finding a specific cause for each crisis implies the lack of a consistent theory of crisis (Freeman 1999).

It should be clarified that there is no one-sidedness here in the sense that this claim does not ignore the typology of concrete crises and the various factors that come into play. Quite the contrary, the CMP's own contradictions explain the reasons for a crisis manifesting itself in a given way (and not some other way), or why certain factors are more important within some conjunctures and/or national economies (see Freeman 2016). The relevant point is the theoretical status given to factors such as the "triangle" composed of finances, the sphere of distribution, and

[2]The constituent elements of the capitalist system (such as interest rates and wages) can be grasped only from the place they occupy within the overall process of valorization, which has explanatory priority. Methodologically, this approach underlies how these instances are addressed in this analysis of the crisis, as is shown in section 4.

[3]To the extent that labor value constitutes the regulating principle of the capitalist economy, the labor theory of value is a general theory of the working and dynamics of the CMP. Therefore, the concept of value is indispensable to explain the crisis (Freeman 1999) insofar as it establishes an objective limit to the total value, and not because measures in terms of labor values should necessarily be used.

[4]See the difference between his *New York Daily Tribune* analysis of different crises in Europe (Marx 1856–58 [MECW 15]) and later theoretical references to crisis in *Capital* (Marx 1894 [MECW 37]). At the same time, it should be considered that it is only from the 1860s onward that a mature analysis of crisis is to be found; up to that point, Marx emphasizes the opposition between production and consumption, together with disproportionality (see Clarke 1994). Even in *Theories of Surplus Value* (vol. 2), his exposition critically responds to Ricardo's theory of accumulation (Marx 1861–63 [MECW 32]).

economic policy. Yet such factors fail to explain the general laws of capitalist accumulation and thus lead to other conceptions of crisis. From an approach based on the labor theory of value, "such claims remain reified in a Marxist sense of failing to link the phenomenal forms with their underlying social production" (Dunn 2012: 370). In order to be analytically consistent, my aim must be to explain the reasons why a crisis is triggered at one point or another of the valorization cycle, since profit regulates both supply and demand (Shaikh 2016).

In short, the abstract should be integrated with the concrete through continuity in the analysis, not through an analytical rupture resulting in a variety of crisis theories.[5] The *abstract* is the foundation of the *concrete*, so the root or fundamental cause gives rise to different direct factors according to the specifics of the conjuncture. As a consequence, the typologies in the manifestation and the diversity of direct factors that trigger different crises are not the foundations for the elaboration of the corresponding *theories of crises*. Hence, I must distinguish between systematic primacy and primacy in specific historical explanations, in the sense of Smith (1999).

Therefore, criticism of the subjectivist theories of crisis—crisis as a mere possibility—lies not in rejecting the importance of the form of manifestation of crisis (as if it were unimportant), but because by limiting themselves to the immediate cause, critics cannot explain the recurrence of crises. In other words, the causality originates in a factor that for Marxist theory is a point of arrival, as if essence and appearance might ostensibly match. Consequently, if crises are analyzed as errors, they might be avoided (Mateo 2019). In the absence of the central role of production, these causes are associated with imbalances in various phases of exchange within the cycle of capital valorization, thus focusing on the constituent parts of the CMP rather than the logic underlying the social totality (and ultimately explained by human intervention). In this way, crisis would be the product of the confluence of a series of factors in a given context, and ultimately associated with a human dimension, whether individual or collective (institutional), as discussed in section 4.

### 2.3. The Spanish Economy and Analysis of the Recent Crisis

The analysis of crisis in a more concrete degree of abstraction requires considering possible displacements of the dynamics of valorization in *space*, in *time*, and in *social* terms, along with specific interplay between tendency and countertendencies (Callinicos 2014; Mateo 2019). *Space* refers to a basic feature of Marx's approach: the tendency toward uneven geographical development. The capitalist system is made up of countries, establishing national spaces of valorization in which a first transformation of concrete labor into social or abstract labor takes place, and for which purpose a national currency exists. This implies, in addition to geopolitical relations, a connection between such economic spaces, materialized in exchange rates.[6] The national development of productive forces constitutes the fundamental determinant of the type of external insertion (commercial, financial, productive), and, in particular, the restructuring processes that occur throughout crises.

*Time* mainly refers to finances, deeply embedded into the national productive development. There is a first causal relationship, going from gross profitability (r) to the interest rate (i): $r \rightarrow i$, hence the centrality of the net expression of the profit rate ($r - i$) as the central driver of accumulation "around which the 'animal spirits' of capitalists frisk" (Shaikh 2016: 734).[7] With credit, contradictions are displaced in time, as credit expects the positive sanction of the market to realize the

[5]Marx (1894 [MECW 37]) himself pointed out that a fall in the profit rate breeds overproduction, speculation, and economic crises, together with surplus population.

[6]The exchange rate reflects the degree of development of the productive forces (see Astarita 2010), so that this can make reference to the redistribution of the value pointed out by Carchedi (1997).

[7]Although there is no natural rate of interest, there are structural determinants (Astarita 2010) since the fundamental aspect is the demand for money-capital.

monetary value of goods (C′ [commodity] — M′ [money]). And the third term, *social*, refers to wages, the basis of income distribution, subject to the requirements of the valorization process.

These displacements are relevant for the analysis of crisis because they widen the divergence between the root and the immediate causes and are thus capable of obscuring the connection between the valorization of capital and the outbreak of crisis. In the case of Spain, they are conditioned by the country's integration into the euro area (EA). This paper claims that the underlying problem of profitability (root cause) generates a displacement in time of the contradictions through asset inflation, which prompts a spatial solution, both externally (as a destination for core European surpluses) and internally (due to the geographical and sectorial implications of the construction of transport infrastructure and housing). Likewise, this model displaces the social contradictions insofar as it is supported by, but also produces, wage stagnation. Of course, economic policy decisions both within the monetary union and at the national level have shaped these processes, but in any case these factors did not generate the GR.

Spain belongs to the European periphery, with a development of productive forces historically below the average of Western Europe in terms of capital composition, productivity, and sectoral economic structure (Bank of Spain [BoS] 2009; Maluquer 2014; Mateo 2019). The nominal exchange rate has remained constant since 1997, though Spain has historically suffered a higher level of inflation than the EA and the United States (Maluquer 2014; AMECO 2020; Eurostat 2020), and this tendency has not disappeared since integration into the Eurozone. The consequence has been an appreciation of the real exchange rate, which reached almost 20 percent in 1997–2008 in relation to the former EU-15 (AMECO 2020). Therefore, the process of capital accumulation and its sectoral structure is widely influenced by the integration into the EA, as is shown later; this occurs mainly in relation to capital ratios and the economic structure (the dynamism of nontradable activities), and in relation to interest rates and possibilities for indebtedness, in turn related to and manifested in the gross profit rate and the return spread on investment.

Methodologically, this analysis takes as reference (if not otherwise specified) the set of activities that can be called productive, remaining aware of limitations and nuances to be considered. Thus, the following activities are excluded: (1) Finance and Real Estate (FIRE, branches 64–66, 68 in the National Statistical Institute, NSI), due to residential asset-inflation and the corresponding central role of the banking system, as well as the existence of unproductive or fictitious activities, such as those related to the exchange of use values (unlike the provision of services) and imputed real estate income, respectively; and (2) the General Government (GOV, public administration and defense; compulsory social security (branch 68), since this is largely comprised of nonmarket activity.[8]

## 3. Characterization of the Crisis in the Spanish Economy

This section addresses the rate of profit (r) and its determinants, the net operating surplus (NOS) or profit (P), and capital (K, net nonresidential capital stock of the previous year, $K_{t-1}$), as well as the ratios corresponding to the sphere of income distribution and production technology (composition of capital). As already explained, variables correspond to productive sectors, unless otherwise specified.

$$r = \frac{P}{K} = \frac{P/Y}{K/Y} \approx \frac{q - wr}{\theta} \cdot \frac{P_k}{P_y}$$

The profit rate (r) depends positively on the profit share (P/Y) and negatively on the capital/output ratio (K/Y, the inverse of the maximum profit rate Y/K). This expression roughly equals

[8]For a more detailed account, see Mateo (2019).

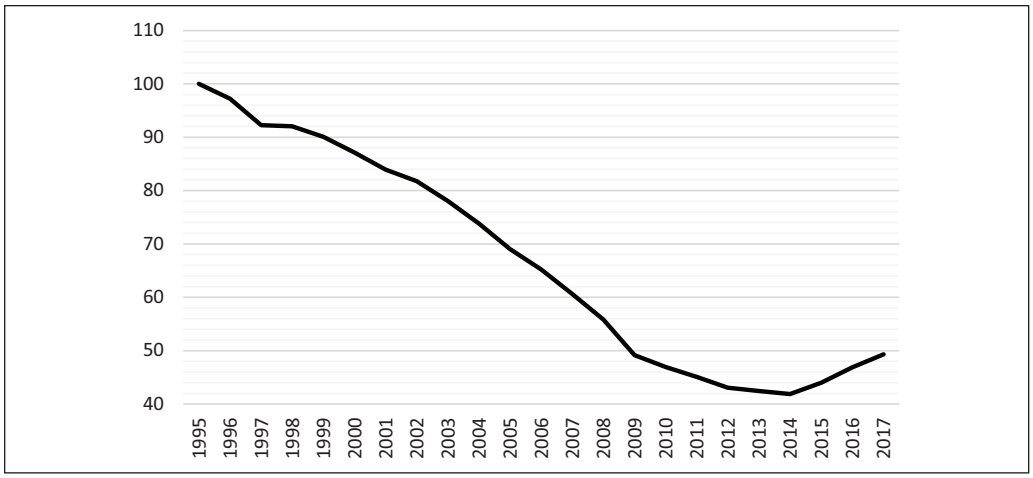


**Figure 1.** The profit rate (1995 = 100).
Sources: FBBVA (2019), NSI (2019a).

the gap between labor productivity (q) and real wages (wr), in relation to the capital/labor ratio (index of the mechanization of the production process, θ), being $\theta = K^*/L_t$, where (*) makes reference to volume or constant prices, $L_t$ stands for total full-time employment/jobs ($L_t$), and $L_w$ stands for wage earners; and considering the price ratio $P_{ky} = P_k/P_y$. It should be clarified that the main causality goes from θ to *q* and *wr* ($\theta \rightarrow q \rightarrow wr$). The volume of profit ($P^*$) is measured with the stock of capital price deflator ($P_k$), following Shaikh (2016).

The rate of profit showed an uninterrupted decline during both the growth years and throughout the crisis (figure 1). By 2007, this decline had reached 39.4 percent, with a cumulative drop of almost 60 percent in 2013–14. Interestingly, the absolute level of the general profit rate for the whole economy[9] in the first year, 1995, was 30 percent lower than the average for 1965–74, just before the 1970s recession; thus there had not been a previous recovery in the capacity of valorization.

## *3.1. A Fall in the Surplus Produced*

Behind this fall can be found the dynamics of the volume of profit. It should be noted that in 2002, six years before the crisis broke out (GDP peaked in 2008Q2), the NOS at constant prices ($NOS^*$) reached a maximum of €214.6 billion, then fell by 26 percent until 2014. Only in 2017 did this mass of profit slightly exceed the level of 1995. If quarterly accounts are used (figure 2), and the structure of the quarterly distribution of the surplus is applied to annual data, the volume of profit in relation to the GFCF price index can be seen to reach its maximum in 2003Q2, at €53.6 billion, although partial maximums were registered in 2006Q3 and 2007Q1, at €52.2 and €52.5 billion, respectively.[10]

In light of this underlying profitability problem, the macroeconomic dynamics leading up to the crisis can be grasped in table 1, which should be read from left to right. Once the surplus stopped rising, the first component of investment to be damaged was the residential type, which declined at the beginning of 2007. But it was in 2007Q3 that its trend changed, as also occurred with investment in transport-material assets (machinery and equipment), both related to the speculative

[9]Net operating surplus (AMECO 2020) in relation to the capital stock (FBBVA 2019) for the whole economy.
[10]This procedure is justified because the measure of the NOS in quarterly terms reveals that the maximum occurred in early 2007, which is not consistent with the more reliable annual accounts.

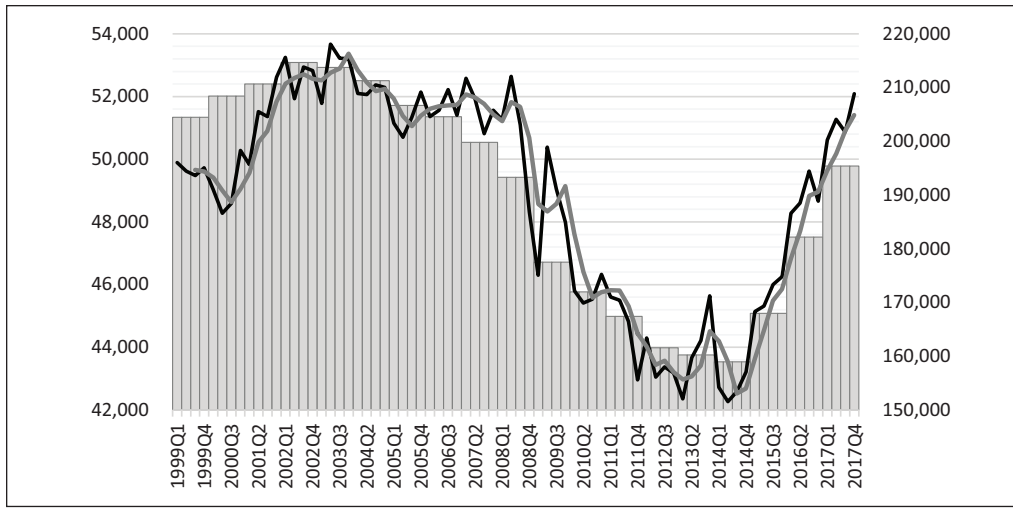


**Figure 2.** Dynamics of the volume of surplus (millions of euros, 2010 constant prices).
Note: Volume of NOS, deflated by the stock of capital price index (Pk). Annual NOS (columns in the right side), with quarterly structure, and three-year moving average (lines, left).
Sources: FBBVA (2019), NSI (2019a, 2019b).

boom.[11] Then, at the end of 2007, investment in other construction reached its maximum, meaning that both nonresidential and total investment stopped growing, together with imports and household consumption. In the following quarter, 2008Q1, housing prices (which were already reducing the rhythm of expansion in previous quarters) hit a maximum of €2,101 per $m^2$ (MPW 2019); and exports and full-time employment also reached their high mark at this time.

Subsequently, both investment in machinery and equipment and GDP were ultimately falling by the second half of 2008, while the average real wage behaved countercyclically. Therefore, neither household consumption nor the foreign sector were the key variables behind the GDP fall. It was actually investment, in turn explained by profitability, as the volume of surplus was falling from 2003 until the end of the recession.

## *3.2. The Composition of Capital and Productive Development*

Capital ratios yielded apparently contradictory results in the context of the housing boom. The stock of capital in real terms increased by 4.6 percent per year between 1995 and 2007. However, the most striking aspect was the extraordinary expansion of employment, mainly for wage earners, which grew at almost 4.3 percent during this period (see figure 3). The capital/labor ratio rose by a scarce 0.25 percent annually, but the capital/output ratio grew more intensely, at 1.3 percent per year. As a result, labor productivity stagnated until 2008, and the price index of capital stock ($P_k$) rose more than the general index ($P_y$).[12]

[11]It should be pointed out that although the level of employment (full-time jobs) began to decrease only in 2008Q2, according to National Accounts (NSI 2019b), if the main statistical base of the labor market in Spain is instead considered (the Economically Active Population Survey, NSI 2019d), then unemployment reached a minimum the year before, in mid-2007. This also reveals the labor-intensive nature of activities related to the housing boom.

[12]These results are derived largely from the stagnation of K/L. If productivity does not grow, it seems difficult to expect that the capital goods sector (with a higher technological content) can significantly improve productivity, reducing costs and thus allowing a relative reduction in prices. On this issue, see Mateo (2020) and Weeks (2009).

**Table 1.** Macrodynamics before and after the GR (quarterly growth rates, %).

| Year (quarter) | GFCF | | | | | | | | | | GFCF | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | Residential | M&E (transport) | Other const. | Non-residential | Total (inc. residential) | Imports | C | Housing price (avg) | L | Exports | M&E (other) | GDP | Real wage |
| 1999Q1–2002Q4 | 3.09 | 1.05 | 0.59 | 0.62 | 1.51 | 1.78 | 1.00 | 2.71 | 0.85 | 1.35 | 0.43 | 0.98 | –0.13 |
| 2002Q4–2005Q4 | 1.44 | 1.83 | 1.38 | 1.48 | 1.46 | 1.63 | 0.89 | 3.81 | 0.76 | 0.69 | 1.25 | 0.83 | –0.18 |
| 2006 Q1 | 3.88 | 5.34 | 2.18 | 2.74 | 3.20 | 3.30 | 0.96 | 3.47 | 1.01 | 1.15 | 2.87 | 1.15 | 0.24 |
| Q2 | 0.70 | 4.67 | 1.98 | 2.60 | 1.83 | 2.71 | 1.06 | 2.90 | 0.53 | 2.20 | 2.89 | 0.97 | 0.28 |
| Q3 | 0.81 | –3.50 | 1.34 | 1.11 | 0.99 | 0.28 | 0.95 | 0.74 | 0.78 | –0.47 | 2.68 | 0.93 | –0.05 |
| Q4 | **0.84** | 3.66 | –0.20 | 1.61 | 1.30 | 4.31 | 0.95 | 1.73 | 0.85 | 3.85 | 3.20 | 0.96 | 0.34 |
| 2007 Q1 | –0.22 | 4.45 | 1.85 | 2.63 | 1.49 | 2.68 | 0.76 | 1.69 | 1.24 | 2.81 | 2.61 | 0.91 | –0.97 |
| Q2 | **0.21** | **1.15** | 0.67 | 0.86 | 0.61 | 0.90 | 0.80 | 1.50 | 0.42 | 0.88 | 0.31 | 0.90 | 1.03 |
| Q3 | –0.44 | –0.78 | –1.39 | 0.00 | –0.17 | 1.24 | 0.64 | 0.33 | 0.41 | 1.72 | 2.15 | 0.77 | 1.37 |
| Q4 | –0.49 | –0.48 | **0.96** | **1.00** | **0.41** | **0.19** | **0.88** | 1.18 | 0.41 | –0.38 | 1.47 | 0.64 | 0.11 |
| 2008 Q1 | –2.00 | –2.78 | –1.56 | –0.79 | –1.26 | –0.42 | –0.05 | **0.76** | **0.99** | **0.88** | –0.19 | 0.22 | 1.61 |
| Q2 | –3.56 | 3.42 | –0.98 | 0.40 | –1.12 | –3.31 | –0.90 | –0.27 | –0.98 | –1.77 | **0.79** | **0.11** | 1.38 |
| Q3 | –4.21 | –10.46 | –0.64 | –2.25 | –2.98 | –3.72 | –1.49 | –1.29 | –0.79 | 1.16 | –2.42 | –0.18 | 2.01 |
| Q4 | –5.95 | –19.61 | –0.51 | –3.93 | –4.68 | –7.55 | –1.65 | –2.43 | –1.98 | –7.15 | –5.76 | –1.61 | 0.01 |
| 2008Q4–2013Q3 | –2.90 | –0.46 | –3.22 | –1.56 | –2.01 | –0.59 | –0.52 | –1.57 | –0.98 | 3.58 | –1.24 | –0.41 | 0.28 |
| 2013Q3–2019Q3 | 1.56 | 0.88 | –0.19 | 0.52 | 0.86 | 0.92 | 0.52 | 0.48 | 0.62 | 3.97 | 1.07 | 0.64 | –0.04 |

Note: Total GFCF= construction [residential + other construction] + machinery and equipment [M&E= transport + other assets]. In bold, when the max is reached. Consumption (C), full-time employment (L), nonresidential = total except residential assets.
Sources: MPW (2019), NSI (2019c).

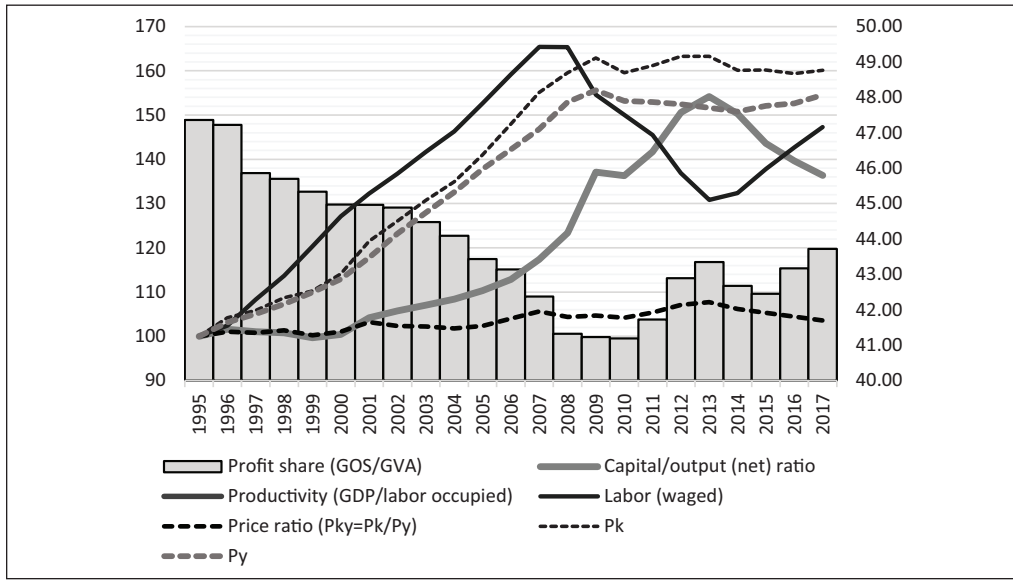


**Figure 3.** Determinants of the profit rate.
Note: Profit share (%, right), other variables, 1995 = 100 (left).
Sources: FBBVA (2019), NSI (2019a).

As claimed in the Introduction, the contradictions at work were not in labor-saving technical changes but in a labor-intensive model which nevertheless suffered from the inability to increase the capacity to generate surplus per unit of labor (figure 4). This was only *aggravated* by the fall in the profit share (that is, the inability to expand the rate of exploitation). Specifically, the fall in the rate of profit is explained in this figure by a decrease in the upper limit (Y/K or maximum profit rate) together with the limited productivity of the labor used, as the profit share only fell by 14 percent until 2010. On the one hand, the output/capital ratio (or labor productivity of capital) decreased by 18 percent in 1995–2007 and by 40 percent into 2013, when the rate began to recover. On the other hand, one dimension of labor productivity—the volume of profit (excluding the mixed income) generated per unit of wage labor—dropped by more than 40 percent from 1995 to 2005/2006. Afterward, the partial recovery could not offset the stunning 21 percent drop in wage employment of 2008–13.

This contradictory evolution of the composition of capital (intense accumulation of capital, but without increasing the level of mechanization) can be explained by distortions associated to the housing boom. One of the main driving forces of investment was the revaluation of assets related with construction, rather than profits deriving from a reduction of socially necessary labor time through mechanization of the productive process. Under these conditions, the housing market offered attractive opportunities for investment in the late 1990s. From 1999, housing prices entered a spiral that was relatively autonomous from other variables. The price per $m^2$ increased at an average of 12.4 percent per year in 1999–2007 (MPW 2019). In the meantime, the cost of borrowing[13] was generally less than 4 percent, while other fixed-income investment alternatives provided yields well below that level (BoS 2019e). This positive differential between house price increases and the cost of indebtedness was running out by 2007, and it vanished altogether later that year.

As a consequence of this gap, more than two-thirds of total investment was concentrated on construction-related assets (housing and other constructions). Sectorally, this distorted accumulation

[13]Interest rates in loans (over €1 million) to nonfinancial corporations.

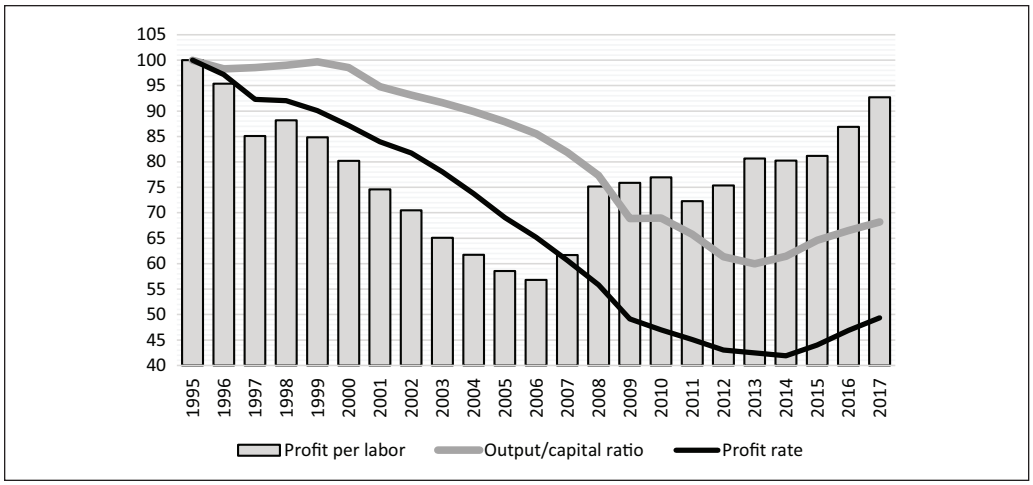


**Figure 4.** The profit rate and its main drivers: surplus productivity index and the maximum rate of profit (1995 = 100).
Note: Surplus productivity index = profit, without mixed income, per wage labor, deflated by $P_k$; net output/capital ratio at current prices.
Sources: FBBVA (2019), NSI (2019a, 2019c).

materialized in the greater dynamism of manufacturing branches related to construction (furniture, etc.), and mostly nontradable activities such as services linked to urban developments, as well as the corresponding financial activity to provide credits, all of them with something in common: a relatively low level of capital/output ratio.[14]

Table 2 shows the activities which had the highest rates of capital stock increase per year (column 3). These branches accounted for 38 to 41 percent of GDP at current prices during the growth phase and received (if real estate is added) almost 60 percent of total gross investment at current prices in 1999–2007. Nevertheless, some critical points can be discerned under this surface: the capital/output ratio of these activities was below domestic average (columns 1 & 2); the GVA growth was rather extensive and thus driven by employment (4), usually with a lower level of qualification (Estrada, Jimeno, and Malo de Molina 2009)—as opposed to labor productivity (5), which in general decreased (except in "other services")—and in the case of trade activities, output per wage earner ($L_w$) dropped by 7.5 percent. Moreover, these branches were relatively inflationary (6) and, as a consequence, showed outstanding levels of falling profitability (7).

The apparently paradoxical relation between capital composition and valorization, by means of the development of productive forces, lies in the sectoral configuration fostered by the housing boom. In this account, the housing boom was a consequence of either underlying profitability difficulties or else a latent crisis in the generation of surplus. Still, this causality remains a matter for discussion, as shown below.

## 4. Controversies Around the Causes

This section presents the main controversies around the causes of the crisis. Broadly speaking, both orthodox and heterodox accounts focus on the sphere of income distribution and finance, complemented by the institutional framework of economic policy. These different analyses are

[14]See Mateo and Montanyà (2018) and Mateo (2019). This "price-effect" makes other assets of fixed capital (offices, industrial buildings, etc.) more expensive (Bellod 2007), thus pushing the general level of inflation upward.

**Table 2.** Sectoral pattern of capital accumulation in key less advanced sectors (1999–07).

| | 1 | 2 | 3 | 4 | 5 | 6 | 7 |
|---|---|---|---|---|---|---|---|
| | K/Y | | Avg | | Variation of | Avg | Variation of |
| Activities | 1995 | 2007 | Capital stock | Lw | productivity | Prices | profit rate |
| Construction | 87.41 | 84.67 | 6.51 | 6.84 | –24.49 | 6.77 | –18.97 |
| Trade | 45.66 | 65.54 | 6.71 | 5.77 | 3.90 | 2.98 | –37.46 |
| Hostelry | 31.11 | 44.44 | 6.04 | 6.17 | –30.40 | 4.48 | –42.41 |
| Professional | 47.85 | 60.35 | 10.00 | 9.20 | –23.01 | 4.53 | –36.86 |
| Other services | 75.22 | 115.23 | 8.08 | 3.05 | 7.22 | 2.47 | –39.97 |
| Total economy | 100.00 | 100.00 | 4.58 | 4.08 | 3.05 | 3.50 | –10.33 |

Note: Trade: wholesale and retail trade, repair of motor vehicles and motorcycles; Hostelry: accommodation and food service activities; Professional: professional, scientific, and technical activities; Other services: arts, entertainment and recreation, repair of household goods, and other services. Columns 1 and 2, level in relation of the average; average growth rates (3, 4, and 6), total variation (5, 7) (%). Productivity: GVA*/Lt; profit rate includes depreciation: GOS/K. Column 3, 1999-08; Lw: wage earners.
Sources: FBBVA (2019), NSI (2019a).

first presented and then critiqued. It is argued that these "causes" are in fact triggering or immediate factors derived from the underlying problem of surplus generation and linked to the real estate boom, which had implications on wages and finances.

## *4.1. Competitiveness, Demand, and Distribution of Income*

The particular path of wages in Spain has provoked opposing accounts of the crisis. On the one hand, orthodox scholars tend to blame excessive wage costs, which would have led to an inefficient allocation of resources (Estrada, Jimeno, and Malo de Molina 2009; Cuadrado and Maroto 2012; Malo de Molina 2013; Garicano 2014; Maluquer 2014; Taguas 2014; BoS 2017; Carreras and Tafunell 2018). One of the consequences was a kind of *profit-squeeze* stemming from the alleged rigidity of the labor market, albeit substituting the rate of profit for the more "neutral" concept of "competitiveness." This claim is based on the evolution of unit labor costs, which during 1995Q1–mid-2008 increased in Spain almost by 50 percent, compared to 21 percent in the Euro-19 (BoS 2019b). However, this increase can be explained by the particular method of measurement, as nominal wages are taken in nominal terms but labor productivity is at constant prices.[15]

In an opposite but complementary way, the underconsumptionist hypothesis of many of heterodox authors in Spain points to the evolution of wages under a demand-side perspective, from which the macroeconomic behavior is explained. Here the ultimate cause of the crisis would have been political, as the turn toward neoliberalism in the 1990s generated large inequalities, reflected in both the fall of real wages and the wage share.[16] Because such a demand problem limits growth, this gap would have led to the financialization of the Spanish economy, and financialization would therefore be considered a consequence. This centrality of finances was thus reflected

[15]In some cases, reference can be made—with much less relevance—to excessive profit margins but arising from obstacles to free competition; see Estrada, Jimeno, and Malo de Molina (2009) and Malo de Molina (2013).

[16]The Kaleckian approach actually points at power balances between companies, the foundation of the markup idea, which determines profits and then the wage share (Sawyer 1985). These Spanish accounts instead focus on the neoliberal economic policy, probably due to the atomization of the corporate structure in Spain, where nine out of ten companies have five or fewer workers (NSI 2019e).

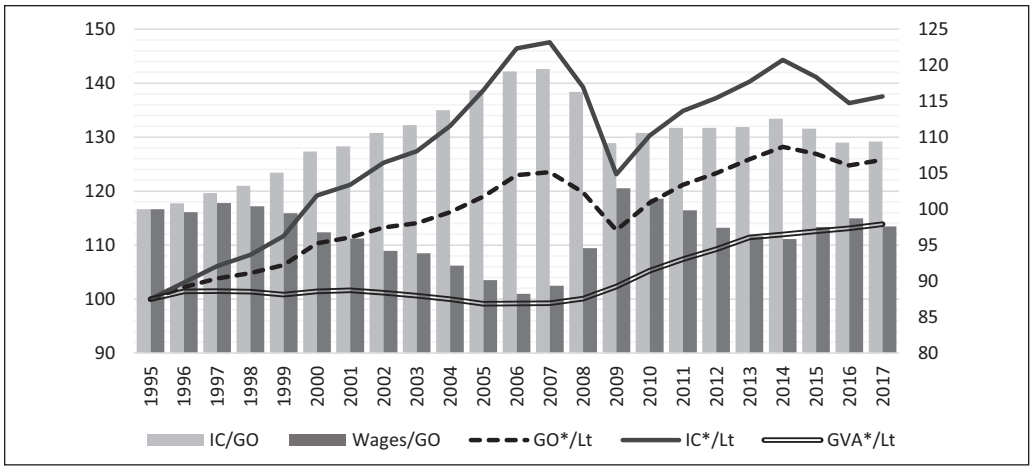


**Figure 5.** Cost structure of gross output, and in relation to employment (1995 = 100).
Note: Gross output (GO) = inputs (IC) + GVA; Lt: full-time employment, total costs = inputs + wages; (*) constant prices. Inputs and wages to GO ratio (right axis), ratios with $L_t$ (left axis).
Source: NSI (2019a).

in credit, debt, and the housing boom, because wage earners had to enter into debt for their consumption spending, especially in terms of housing (Torres 2009; Navarro, Torres, and Garzón 2011; Rodríguez and López 2011; Colom 2012; Álvarez, Luengo, and Uxó 2013).

Apart from the fallacy of the rigidity in Spain of the labor market, which has likewise been deeply liberalized since the 1980s (Guamán and Illueca 2012; Ruiz-Gálvez and Vicent 2018; Mateo 2019), the orthodox emphasis on wage costs must be subjected to scrutiny. Wage costs of the overall economy in relation to the total gross output (GO) fell from around 27 percent in 1995–98 to less than 24 percent in 2005–7, while the cost of inputs (IC) rose from 47 percent in 1995 to 56 percent in 2006–7, and from 50 to 60 percent for the productive activities (figure 5). The construction boom generated a regime of accumulation that was intensive in the use of inputs (to a large extent imported), so that while the value added per unit of labor did not increase until 2007, in terms of GO, it grew by 23 percent in 1995–2007.

The wage share does not provide a relevant clue to help explain the crisis. Wage ratios to both GVA and GDP in the productive sphere increased by 7 and 6 percentage points, respectively, but by only 1.7 and 0.6 points, respectively, for the economy as a whole in 1995–2007.[17] Yet if the wage share is adjusted by the increase of wage labor in the total occupied labor force, then this "wage coefficient" did fall by 2.6 points for the whole economy and rose by only 0.8 points in the productive sphere in that period.

Furthermore, a long-term analysis for the entire economy reveals the inconsistencies of these approaches (figure 6): the wage-to-GDP ratio rose during the growth cycles of 1960–74 and 1985–91 but remained constant in 1995–2007; the ratio in these periods of compensation per employee to GDP per person employed, in terms of both market prices and factor costs, first increased, then fell, then stagnated; and in 1995–2007, only the ratio of wages to the sum of wages and GOS (W/[W+GOS]) in the productive area grew (by 5 percentage points). Therefore, from these disparate trends, no distributive theory about the crisis can be formulated.

[17]It should be noted that those activities in which the wage share did not decline—such as industrial activities related to wood and cork, paper and printing, as well as trade and repair, hotels, professional activities, social services, etc.—had a lower-than-average capital/output ratio.

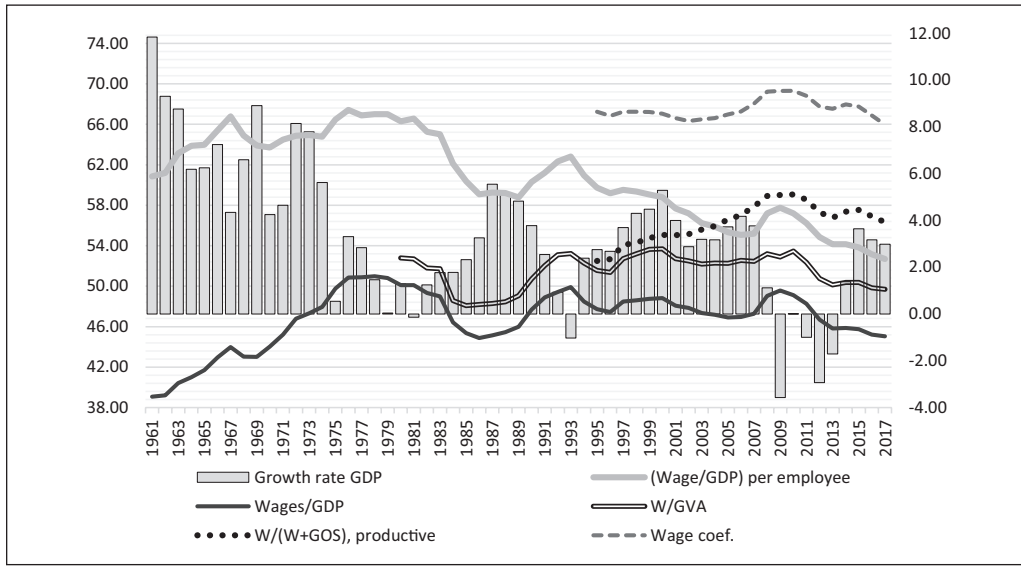


**Figure 6.** Wage share and GDP growth in a long-term perspective (1961–2017). Measures of wage share (left) and growth rate of GDP (right).
Note: Wages (W), gross operating surplus (GOS). Wage share [W/(W+GOS)] and wage coef. [wage share/(wage labor/total employment)], for the productive sphere, from NSI (2019a); other measures, from AMECO (2020) for the whole economy.
Sources: AMECO (2020), NSI (2019a).

In opposition to the orthodox account, the real unit labor costs index (nominal compensation per employee to GDP per person employed), which rose in preceding periods of growth, fell by 9 points in the most recent (1995–2007). In contrast to Keynesian explanations, household consumption demand lost 4 percentage points between 1995 and 2007, but a demand problem can hardly be stressed when the volume of household consumption demand has slightly outgrown GDP, reaching 0.06 percentage points on average in 1999Q1–2007Q4, although consumption share in GDP lost 2.7 percent at current prices. But as seen previously in table 1, consumption demand began to fall in 2008, after the fall in profitability and half a year after investment (both residential and transport), meanwhile showing lower variability than other categories.

On the other hand, insofar as these approaches refer to competitiveness (orthodox) and real wages (Keynesian), it is necessary to briefly address the issue of inflation. Indeed, the central role of price indexes in the context of an asset bubble leads to a refutation of certain assertions. In 1995–2007, the GDP deflator exceeded the consumption price index (CPI), and yet the CPI in Spain did not record the increase in housing prices—a durable consumption good—so official statistics do not show the actual deterioration of the average wage's purchasing power.[18] Furthermore, contrary to the orthodox approach, I argue that the higher inflation in relation to the EA is not explained by nominal wages. Rather, this is a structural fact given the lower productive development of Spain: beginning in the 1960s, the Spanish price index grew faster than that of Germany, but that gap has been narrowing since 1990s (AMECO 2020). This is consistent with worldwide center-periphery differences in inflation (UNCTAD 2020) and is also reflected in the

[18]As Bellod (2009) explains for the measure of the CPI, the "use-cost" method was replaced in 1992 by the "lease method," which is somewhat contradictory to the behavior of Spanish households. The price of housing always exceeded that of rent in the recent period (by almost three times from 1998 to 2007), in turn reducing quantified inflation. Therefore, workers' purchasing power has fallen to a greater extent for those who had to buy an apartment (the majority of population).

increase of the $P_k/P_y$ ratio.[19] For Spain, this is further linked to the price-effect underlying the asset-inflation model of capital valorization, in turn transmitted to other activities, particularly nontradable ones. Succinctly put, this is a structural and macro approach in the materialist conception, instead of an ahistorical aggregative and micro perspective focused only on wage earners, as found within subjective approaches.

But even with this undervaluation of purchasing power, official data on the average real wage for the 12 years prior to the outbreak of the crisis are clarifying: according to the OECD (2020), purchasing power increased by a scant 0.56 percent, or by 2.53 percent per AMECO (2020). However, when using the GDP deflator, the data shows a drop of 2.9 percent and 2.4 percent according to Eurostat (2020) and AMECO (2020), respectively, which amounts to –4.6 percent if FIRE activities are excluded (Eurostat 2020). For the economy as a whole, wages per salaried job fell by 0.6 percent, which amounts to –2.8 percent per hour of labor; however, with respect to the CPI, the increase reaches at least 3.8 percent, or only 0.3 percent per year (NSI 2019a).[20]

Nevertheless, this evolution has been countercyclical, and the recovery of the average real wage during the crisis was widely used by orthodox economists and institutions as an example of a rigid labor market incapable of adjusting the price (cost) of labor. Yet it should be clarified that the real wage increase during the first two years of the crisis is misleading, being largely explained by layoffs of low-paid workers (the so-called composition effect), as well as by previously signed collective agreements or the application of safeguard clauses, since inflation in 2007 was two percentage points above that established in collective bargaining (Pérez-Infante 2013; Uxó, Febrero, and Bermejo 2015).[21] In any case, the evolution of the real wage is not the key with which to characterize the crisis (see table 1) but is instead explained by "structural" aspects.

Finally, table 3 shows the relation between the absolute level of the real wage (wr) and labor productivity (q) in Spain with respect to the EA between 2000 and 2017, in contrast to the rates of growth taken by neoclassical analysts. If the real wage-productivity ratio is higher (lower) than 100, then the gap for Spain in productivity would be greater (lower) than the difference in wages, so the latter would be relatively low (high). When FIRE activities are excluded, the trends are perceived more clearly: the relative real wage fell by 6.5 percentage points during the housing boom, but relative productivity fell further (11 points), hence real wages increased comparatively by almost 5 points.

Against the orthodox approach, the aspect to be analyzed is not the labor market, but rather why the accumulation process is labor-extensive and productivity-stagnant. Only between 2007 and 2009/2010 did the real wage grow significantly more than was the case in the EA, and yet this is associated to a large extent with the above-mentioned job restructuring, to the detriment of the lowest-paid layer of workers. And in contrast to the underconsumptionists, neither were real wages excessively low, given Spain's place in European capitalism. Still, in opposition to assertions by neoclassical scholars, there would have been room for some wage improvement.

In short, the debate on the crisis should not essentially revolve around the wage level, neoliberalism, or labor market regulation, but rather on the capacity to generate surplus. Contrary to findings by the approaches examined, productivity is not a fundamentally micro (individual)

[19]For an analysis of price ratios from a center-periphery perspective, see Mateo (2020).

[20]However, these already negative data hide an even worse reality: between 2002 and 2005, the average income corresponding to the poorest 20 percent of Spanish households fell by 23 percent, while the average income of the richest tenth increased by more than 15 percent, and the difference of average income between the richest tenth and the poorest 20 percent of Spanish households went from 12 times to 17.4 (Torres 2009).

[21]Actually, this was an exception, since the depression brought a real-wage regression behind the average index, mostly in the wake of the 2010 and 2012 labor reforms, as shown in depth by Puente and Galán (2014), Uxó, Febrero, and Bermejo (2015), and Muñoz de Bustillo (2016).

**Table 3.** Spanish relative wage and productivity levels Vs the EA (%).

| | Total economy | | | Without FIRE activities | | |
|---|---|---|---|---|---|---|
| Year | wr (1) | q (2) | wr/q (1/2) | wr (1) | q (2) | wr/q (1/2) |
| 2000 | 81.92 | 85.16 | 96.19 | 88.53 | 92.11 | 96.12 |
| 2001 | 83.33 | 84.98 | 98.06 | 88.22 | 91.66 | 96.24 |
| 2002 | 83.01 | 84.91 | 97.76 | 87.16 | 90.70 | 96.10 |
| 2003 | 82.54 | 84.09 | 98.15 | 85.10 | 88.97 | 95.65 |
| 2004 | 81.97 | 82.20 | 99.73 | 83.62 | 85.93 | 97.31 |
| 2005 | 81.75 | 80.98 | 100.94 | 82.26 | 84.11 | 97.80 |
| 2006 | 81.52 | 79.54 | 102.49 | 81.68 | 82.13 | 99.46 |
| 2007 | 82.86 | 79.12 | 104.72 | 81.92 | 81.11 | 101.00 |
| 2008 | 85.03 | 80.38 | 105.78 | 83.20 | 82.19 | 101.22 |
| 2009 | 88.83 | 85.75 | 103.59 | 86.16 | 88.24 | 97.64 |
| 2010 | 86.92 | 85.03 | 102.22 | 86.53 | 87.10 | 99.34 |
| 2011 | 85.73 | 85.37 | 100.42 | 86.13 | 87.55 | 98.38 |
| 2012 | 83.30 | 87.36 | 95.35 | 85.25 | 89.24 | 95.53 |
| 2013 | 82.20 | 88.22 | 93.18 | 85.28 | 90.51 | 94.22 |
| 2014 | 82.00 | 88.20 | 92.98 | 85.72 | 90.13 | 95.11 |
| 2015 | 83.01 | 88.45 | 93.84 | 86.47 | 90.70 | 95.33 |
| 2016 | 82.35 | 88.92 | 92.61 | 85.76 | 90.95 | 94.29 |
| 2017 | 81.14 | 88.40 | 91.79 | 84.67 | 90.15 | 93.93 |

Note: Relative real wage (wr), labor productivity (q) of Spain with respect to the EA, and [wr (Spain/EA) / q (Spain/EA)].
Source: Eurostat (2020).

concept but has a social character, the material basis of which is the level of productive development of the national valorization area. In other words, behind labor compensation levels there is a certain structure of employment that is in turn related to the economic structure (a productive specialization of the Spanish economy in activities with low technological content).

### *4.2. Finance: From Interest Rates to Over-indebtedness*

As with income distribution, there are explanations from both orthodox and heterodox approaches that emphasize the role of finance in explaining this crisis, albeit with a focus on different points. First, some scholars claim that the ultimate cause must have been the excessively low interest rates (even lower in real terms, given the higher relative inflation in Spain), and this explanation is shared by neoclassical authors (Estrada, Jimeno, and Malo de Molina 2009; Gavilán et al. 2011; Jorge 2011; De Juan, Uría, and Barrón 2013; Carreras and Tafunell 2018), by the Austrian school (Vara 2009), and even by heterodox scholars (Febrero and Bermejo 2013). This is basically a political account of the crisis; that is, decisions by the ECB were ultimately responsible for the imbalances that led to the recession.

Second, other authors highlight the excess indebtedness of the private sector (a crisis of over-indebtedness), due to agents' individual decisions in terms of expectations and choice between current or future consumption (Estrada, Jimeno, and Malo de Molina 2009), or due to excessive *eu(ro)phoria* (Carreras and Tafunell 2018); or else they highlight notions of expectation and risk from Minsky (García 2014). In the post-Keynesian literature, wide reference is made to private (NFC and household) debt-led growth (Ferreiro, Gálvez, and González 2016; Febrero and Bermejo 2013; Sanabria and Medialdea 2014, 2016), which would constitute the core of the

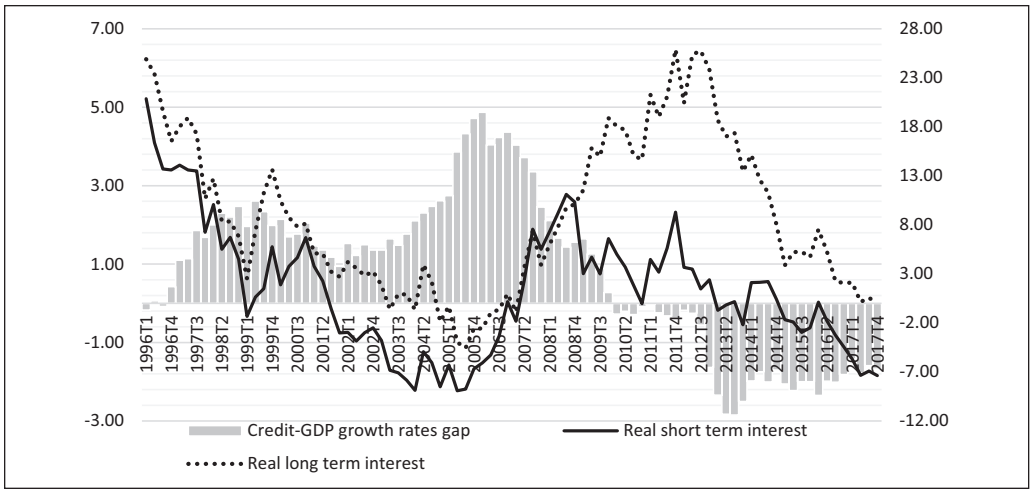


**Figure 7.** Real interest rates (left) and credit to GDP growth rate gap (right), quarterly (%).
Note: Interest rates, 1995Q1–2017Q4, the gap in growth rates between the flow of credit to NFCs and GDP starts in 1996Q1.
Sources: BoS (2019b), NSI (2019b), OECD (2020).

financialization of the Spanish economy. In short, these explanations take the financial sphere as the independent variable of the dynamics of accumulation and crisis.

However, even assuming the relevance of the financial sphere, and specifically the fact that interest rates were excessively low, and debt too high, the analytical causality should be critically examined. The asset-inflation can be essentially explained by underlying profitability problems, despite potential for relative autonomy, with the capacity to influence the economic structure itself.[22] As explained, an asset bubble consequently implies a displacement of the contradictions of capital in both *space* and *time*, and even in social terms, as this process prevents real wages from rising.

Along with the process of monetary convergence leading to the Euro currency in the second half of the 1990s, as well as after the mild recession of early 2000s, interest rates declined and were at historic, exceptionally low levels (figure 7). Both long-term and short-term rates of interest fell relatively more than the profit rate, from 11.2 to 4.7 percent (1995–98) and from 9.3 to 2.9 percent (1995–99), and since 2002 until the outbreak of the GR they oscillated around 3 to 4 percent and 2 to 3 percent, respectively. In 1995, long-term real rates were at 6.3 percent, but in the late 1990s they fell to 2 percent and turned negative in 2005–6, while real short-term rates dropped by between 4 and 7 percent in the first half of the 1990s, hitting 0.3 percent in 1999 and turning negative in 2002–6. Moreover, the risk premium with Germany practically disappeared between 2003 and 2007 (BoS 2019d).

This fall in interest rates materialized in a boom in credit, which rose by more than 10 percent per year from 1997, and by more than 20 percent from mid-2005, to the third quarter of 2007.

[22]In a purely complementary way, references can be made to economic policy (1998 Law of Soil, decentralization), demography (changes in family structures, immigration), and nature (orography, climate), further considering that growth phases in Spain since the industrialization of 1960s have been linked to construction (Rodríguez and López 2011; Mateo 2019). In this sense, the duration of the boom is associated with the peculiarities of housing construction: more inelastic than other goods in the short term, subject to multiple transactions over time without actually affecting the price, and with intersectoral linkages (see Mateo and Montanyà 2018). Ultimately, this culminates in an effective demand that depends on income. For a more systematic analysis, see Mateo (2019).

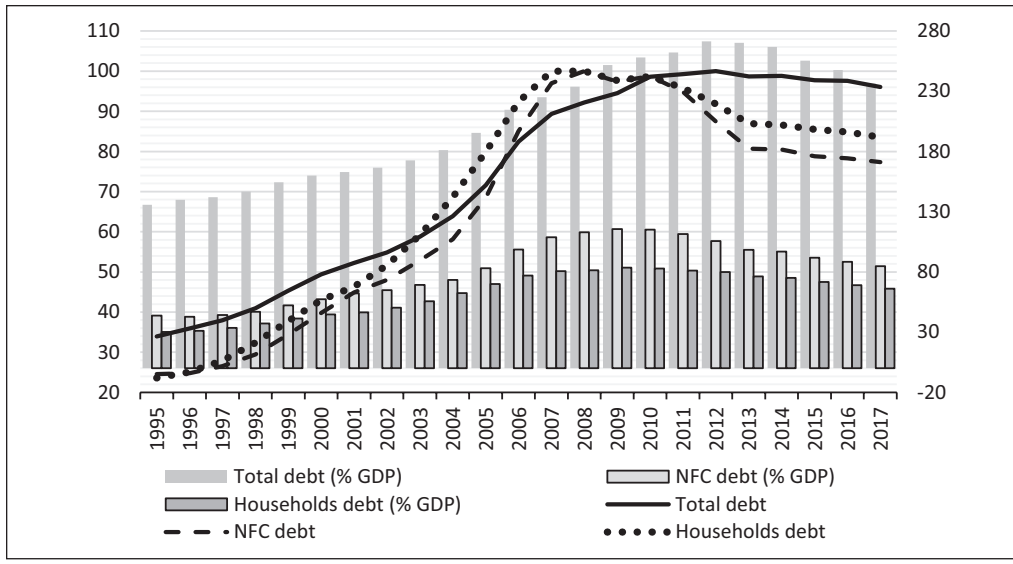


**Figure 8.** Stock of debt: total, nonfinancial corporations, and households. Volume at 2010 constant prices (left) and % of GDP (right).
Note: 100, when the maximum is reached: 2008 for NFCs and households, 2012 for total debt, with GDP deflator.
Sources: BoS (2019e), NSI (2019a).

Even in the first half of 2008, credit grew by more than 10 percent.[23] As shown in figure 8, the volume of private debt grew until 2008 in annual terms, but in fact the maximum was reached in 2009Q1. Household debt reached peaks first in 2008Q2 and then in 2010Q2, while total debt peaked later, in 2012, due to the public debt boom. The stock of debt-to-GDP ratio at current prices rose until 2009, when it represented 115.5 and 83.4 percent for NFCs and for households, respectively. Thus, debt is actually explained by profitability, and it becomes excessive when the surplus and (consequently) the output fall, meaning it cannot be paid back.

The role of finance in the gestation of the crisis should thus be analyzed within the holistic framework of capital as a social relation and through the entire process of value-production, and specifically in consideration of the gross profit rate, as interest represents a part of total surplus, not a cost. Therefore, the functionality of interest rates is twofold. On the one hand, the reduction in the cost of financing fostered the net profit rate ($r - i$), compensating for the relatively low level and the fall in the upper ceiling (gross "r") by this further reduction of the lower limit ("i"), as was the case with stagnant real wages. In fact, until 2005 the decrease in interest rates was more severe than that of the gross profit rate, falling by 70 and almost 77 percent (long and short term, respectively), while the profit rate fell *only* 30 percent.

Figure 9 shows a proxy for this net profit rate, the spread of "return on investment minus cost debt," or the difference between the ordinary return on net assets and the cost of debt of NFCs. While the general rate of profit decreased, this spread grew by 20 percent between 1999 and 2004, then fell by 95 percent between 2004 and 2012. Insofar as interest rates are derived from the total surplus, they here generated a double process of polarization, which reveals their functionality for the process of capital reproduction. First, between companies: during the boom,

[23]Out of total credits granted, those related to the housing bubble (construction, real estate activities, and acquisition and rehabilitation of houses) increased from 38 to 60 percent of total credits between 1995 and 2006–8 (BoS 2019e).

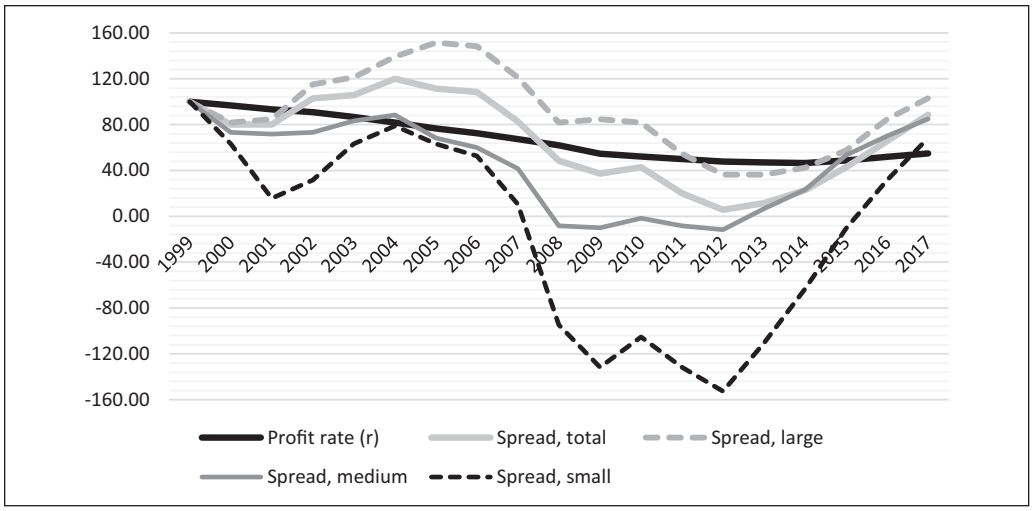


**Figure 9.** The general profit rate and the spread of return on investment and cost debt, by corporation size (1999 = 100).
Sources: FBBVA (2019), NSI (2019a), BoS (2019c).

large corporations increased their spread by 51 percent in 1999–2005, while small and medium-sized companies shrank by 30 percent in those years, albeit with fluctuations. During the crisis, the decrease in the spread was disproportionately higher for small corporations, whose interest burden exceeded 30 percent in 2008–12, or between 7 and 13 points more than the burden of large companies.

Second, finance was in turn *geographically* functional. The real estate bubble in Spain made it possible to recycle current account surpluses from the more advanced economies of the Eurozone while the risk premium was nonexistent.[24] Conversely, the crisis fostered an exceptional surge for this rate, from 100 points in 2009 to exceeding the 500-point barrier after the end of May 2012 (BoS 2019d). Accordingly, the more advanced European economies received large amounts of capital flows, and so their interest rates fell sharply, unlike in peripheral economies. This regional polarization complements corporate restructuring and constitutes the geographic materialization of unequal development and the tendency toward deepening inequalities between national spaces of valorization promoted by the crisis.[25] In other words, the financial area (risk premiums, capital movements) contributed to a geographical recomposition of national valorization processes in the Eurozone.

Correspondingly, finances cannot be considered a root cause but a consequence that merely accompanies or even sharpens pre-existing contradictions. That is to say, finances are here not an explicative fact but instead something to be explained, or at best a triggering factor. The fall in interest rates compensated for the fall in the gross rate of profit and contributed to a huge indebtedness that postponed the emergence of the inner contradictions of Spanish capital accumulation.

[24]It should be noted that the most significant bilateral capital flow within the euro area was that developed between Germany and Spain, with the acquisition of mortgage-backed bonds destined for investment in the Spanish housing market (Pérez 2013).
[25]Between April 2011 and July 2012, capital outflows averaged €11.8 billion per month—a loss equivalent to between 8 and 13 percent of GDP, with a maximum of 22 percent of GDP in the turbulent second quarter of 2012 (BoS 2019b).

## 5. Conclusions

The main idea to highlight is that the GR in Spain was basically a crisis of capital, with an underlying problem of profitability behind (and hidden by) the real estate/financial process that drove the dynamics of accumulation. This is a difference between the root cause and the triggering factor associated with this particular regime of growth.

Between 1995 and 2007, the profit rate fell by 40 percent, and by almost 60 percent from 1995 to 2014. The annual volume of profits ($NOS^*$) peaked in 2002, well before investment and output started falling. Therefore, the crisis can be explained by this problem of profitability in the sphere of surplus production, which conditions the flow of investment in residential and transport assets, which reached maximums in 2006Q4–2007Q2 and mid-2007, respectively. Later in 2007, other construction investment and both nonresidential and total GFCF ceased growing, together with imports and consumption. Then, after housing prices, employment (full-time) and exports had all peaked in the second half of 2008, machinery and equipment investment as well as total GDP started falling.

As a consequence of insufficient amounts of profit, this model of accumulation driven largely by a real estate bubble implies both a temporary and geographic displacement of the valorization circuit, leading also to a social recomposition, so that reference can be made to a *spatial solution* (*spatiotemporal fix*) to the contradictions arising from the sphere of value-production and closely linked with finance. The counterparts were, first of all, an apparent contradictory dynamic of the capital/labor ratio, explained by a sectoral reorganization to the detriment of activities with higher levels of mechanization, due to the labor-intensive nature of this process and the subsequent stagnation of labor productivity.

Second, whether analysis emphasizes falling interest rates or over-indebtedness, it ultimately reveals that interest is not treated as a part of surplus value. And yet the functionality of interest rates is consistent with the inner logic of capital in general, in both its social and geopolitical dimensions, or else in the reorganization of power relations to the detriment of wages, small capital, and peripheral economies such as Spain. Contrary to theories of financialization, the fall in the gross rate of profit actually creates debt a problem inasmuch as sufficient surplus is not generated to pay back loans. Over-indebtedness causes contradictions to arise at a later date, but in a deeper way. As a consequence, finances can be said to have been both a direct and a superficial factor.

Third, in the case of wages, controversies manifest themselves in the dichotomy between two one-sided conceptions: (1) for neoclassicals, the nominal wage is a cost (supply) within a technical production function, making it possible to resort to exogenous factors (alleged labor market rigidities); or (2) the wage as income, the main source of demand, which determines profit for underconsumptionist approaches. These accounts are based on the superficial contradiction of the housing boom, for in the last instance, stagnant wages make a permanent increase in housing prices objectively impossible, due to the lack of purchasing power, meanwhile ignoring the fact that it is the valorization process which creates demand. What appears to be a wage-demand limit turns out to be an underlying labor-value limit, because the path of wages has instead been functional to the needs of capital valorization. In other words, this represents the social displacement of contradictions, as stagnant wages contribute to temporarily hide the underlying profit-based problem.

Summing up, instead of addressing wages and interest rates (indebtedness) from the perspective of the totality, these conceptions carry out the inverse method. The corresponding account is revealed as being specific to the GR, without differentiation between content and form. These accounts constitute subjectivist explanations of *this crisis* because, ultimately, all of them come down to human failure, explained by interventions (decisions or actions or choices) made by certain groups: trade unions (rigidities in the labor market); proponents of neoliberalism (wages, inequalities); and/or the agents responsible for monetary policy (interest rates) or borrowing (debt). Consequently, the source of the crisis can be found in the phases of exchange of "things":

M—C and C′—M′, hence the role of interest and debt (M—M′), profit-squeeze (M′—labor), or demand (C′—M′); that is, the crisis is identified as a disequilibrium. Thus, this type of analysis is limited to imbalances in certain prices which are associated with supply and demand, but which actually reflect the turbulence inherent in the accumulation process.

In opposition to all these explanations, this paper has shown the relevance of the opposition between root and triggering factors, because the production of surplus is the main driver of accumulation, regardless of empirical difficulties with the national accounts.

## Acknowledgements

This article presents the results of a research carried out at the Dept. of Economics of The New School (New York), under the direction of Anwar Shaikh. Suggestions from Prof. Shaikh, and the reviewers of this journal, have contributed to improve the paper. However, they do not have any responsibility for the ideas expressed.

## Declaration of Conflicting Interests

The author declared no potential conflicts of interest with respect to the research, authorship, and/or publication of this article.

## Funding

The author disclosed receipt of the following financial support for the research, authorship, and/or publication of this article: The author received support from the research project "Modeling and simulation of energy transition scenarios towards a low carbon economy: the Spanish case" (MODESLOW), funded by the Ministry of Economy, Industry, and Competitiveness of Spain (Ref: ECO2017- 85110-R).

## ORCID iD

Juan Pablo Mateo https://orcid.org/0000-0002-5735-7962

## References

Álvarez, Ignacio, Fernando Luengo, and Jorge Uxó. 2013. *Fracturas y Crisis en Europa*. Madrid: Clave Intelectual.

AMECO. 2020. Annual macro-economic database of the European Commission's Directorate General for Economic and Financial Affairs. Accessed at: https://ec.europa.eu/info/business-economy-euro/indicators-statistics/economic-databases/macro-economic-database-ameco/ameco-database_en.

Astarita, Rolando. 2010. *Economía Política de la Dependencia y el Subdesarrollo*. Buenos Aires: Universidad Nacional de Quilmes Editions.

Bellod, José Francisco. 2007. Crecimiento y especulación inmobiliaria en la economía española. *Principios. Estudios de Economía Política* 8: 59–84.

———. 2009. El precio de la vivienda y la inflación en España. *El Trimestre Económico* 76 (302): 379–405.

Bank of Spain (BoS). 2008. Survey of household finances. Madrid: Bank of Spain.

———. 2009. *Annual report*. Madrid: Bank of Spain.

———. 2017. *Report on the Financial and Banking Crisis in Spain, 2008–2014*. Madrid: Bank of Spain. Accessed at: https://www.bde.es/bde/en/secciones/informes/Otras_publicacio/informe-sobre-la/.

———. 2019a. Statistical bulletin. Madrid: Bank of Spain.

———. 2019b. Economic indicators. Madrid: Bank of Spain.

———. 2019c. Central balance sheet data office. Madrid: Bank of Spain.

———. 2019d. Summary Indicators. Madrid: Bank of Spain.

———. 2019e. Financial accounts of the Spanish economy. Madrid: Bank of Spain.

Callinicos, Alex. 2014. *Deciphering Capital: Marx's Capital and Its Destiny*. London: Bookmarks.

Carchedi, Guglielmo. 1997. The EMU, monetary crises, and the single European currency. *Capital & Class* 21 (3): 85–114.

———. 2011. *Behind the Crisis. Marx's Dialectics of Value and Knowledge*. Leiden: Brill.

Carreras, Albert, and Xavier Tafunell. 2018. *Entre el Imperio y la Globalización. Historia Económica de la España contemporánea*. Barcelona: Crítica.

Clarke, Simon. 1994. *Marx's Theory of Crisis*. New York: St. Martin's.

Cohen, Gerald. 1978. *Karl Marx's Theory of History. A Defense*. Princeton, NJ: Princeton University Press.

Colom, Agustí. 2012. *La crisis económica española: Orígenes y consecuencias. Una aproximación crítica*. Paper presented at the XIII Conference of Heterodox Economics, Sevilla (February).

Cuadrado, Juan R., and Andrés Maroto. 2012. *El Problema de la Productividad en España: Causas Estructurales, Cíclicas y Sectoriales*. Madrid: FUNCAS.

De Juan, Aristóbulo, Francisco Uría, and Íñigo de Barrón. 2013. *Anatomía de una Crisis*. Barcelona: Deusto.

Dunn, Bill. 2012. Marx's method and the global crisis. *International Critical Thought* 2 (3): 362–74.

Estrada García, Angel, Juan F. Jimeno Serrano, José Luis Malo de Molina. 2009. *La economía española en la UEM: los diez primeros años*. Occasional Papers no. 0901. Madrid: Bank of Spain. Accessed at: https://repositorio.bde.es/handle/123456789/6334.

Eurostat. 2020. Database. Statistical Office of the European Union.

FBBVA. 2019. *El stock y los Servicios del Capital en España y su Distribución Territorial y Sectorial (1964–2016)*. Madrid: Fundación BBVA/Ivie.

Febrero, Eladio, and Fernando Bermejo. 2013. *Spain during the Great Recession. Teetering on the Brink of Collapse*. In Post-Keynesian Views of the Crisis and its Remedies, eds. Óscar Dejuán, Eladio Febrero and Jorge Uxó, 266─293. London: Routledge.

Ferreiro, Jesús, Catalina Gálvez, and Ana González. 2016. Financialisation and the economic crisis in Spain. In *Financialisation and the Financial and Economic Crises. Country Studies*, eds. Eckhard Hein, Daniel Detzer, and Nina Dodig, 89–113. Cheltenham, UK: Edward Elgar.

Freeman, Alan. 1999. Crisis and the poverty of nations: Two market products which value explains better. *Historical Materialism* 5 (1): 29–76.

———. 2010. Marxism without Marx: A note towards a critique. *Capital & Class* 34 (1): 84–97.

———. 2016. Booms, depressions, and the rate of profit: A pluralist, inductive guide. In *The Great Financial Meltdown. Systemic, Conjunctural or Policy Created?*, ed. Turan Subasat, 73–96. Northampton, MA: Edward Elgar.

García, Norberto. 2014. Las causas de la doble recesión de España en 2008–2013. In *¿Qué ha Pasado con la Economía Española?*, eds. Norberto García and Santos Ruesga, 29–54. Madrid: Pirámide.

Garicano, Luis. 2014. *El Dilema de España*. Barcelona: Península.

Gavilán, Ángel, Pablo Hernández, Juan F. Jimeno, and Juan A. Rojas. 2011. The crisis in Spain: Origins and developments. In *The Euro Area and the Financial Crisis*, eds. Miroslav Beblavy, David Cobham, and L'udovít Ódor, 81–96. New York: Cambridge University Press.

Gill, Louis. 1996. *Fundamentos y Límites del Capitalismo*. Madrid: Trotta.

Guamán, Adoración, and Héctor Illueca. 2012. *El Huracán Neoliberal. Una Reforma Laboral contra el Trabajo*. Madrid: Sequitur.

Jorge, Juan. 2011. *Nada es Gratis. Cómo Evitar la Década Perdida tras la Década Prodigiosa*. Madrid: Destino.

Malo de Molina, José Luis. 2013. Entre la micro y la macro: El papel del mercado de trabajo en la crisis del euro en España. In *Ensayos sobre Economía y Política Económica*, eds. Maurici Lucena and Rafael Repullo, 351–68. Barcelona: Antoni Bosch.

Maluquer, Jordi. 2014. *La Economía Española en Perspectiva Histórica*. Barcelona: Pasado y Presente.

Marx, Karl. 1856–58. *Marx & Engels Collected Works,* volume 15. London: Lawrence and Wishart.

———. 1857–58. Outlines of the critique of political economy. In *Marx & Engels Collected Works*, volume 29. London: Lawrence and Wishart.

———. 1861–63. A contribution to the critique of political economy. In *Marx & Engels Collected Works*, volume 32. London: Lawrence and Wishart.

———. 1894. *Capital*, volume 3. In *Marx & Engels Collected Works*, volume 37. London: Lawrence and Wishart.

Mateo, Juan Pablo. 2018. Marx's law of the profit rate and the reproduction of capitalism. Neither determinism nor overdetermination. *World Review of Political Economy* 9 (1): 41–60.

———. 2019. *The Theory of Crisis and the Great Recession in Spain*. London: Palgrave.

———. 2020. La acumulación de capital en la periferia. Una propuesta analítica desde la economía política. *Cuadernos de Economía* 42 (122): 119–30.

Mateo, Juan Pablo, and Miguel Montanyà. 2018. The accumulation model of the Spanish economy: Profitability, the real estate bubble, and sectoral imbalances. In *The Political Economy of Modern Spain*, eds. Luis Buendía and Ricardo Molero, 20–48. London: Routledge.

Ministry of Public Works (MPW). 2019. Statistical information. Madrid: Ministry of Public Works and Transport.

Muñoz de Bustillo, Rafael. 2014. La crisis del nunca acabar. El comportamiento macroeconómico español 2008–13. In *¿Qué ha Pasado con la Economía Española?*, eds. Norberto García and Santos Ruesga, 55–82. Madrid: Pirámide.

———. 2016. Paisajes después de la batalla. El mercado de trabajo en España tras la Gran Recesión. *Revista Española del Tercer Sector* 32: 17–45.

Navarro, Vinçenc, Juan Torres, and Alberto Garzón. 2011. *Hay Alternativas. Propuestas para Crear Empleo y Bienestar Social en España*. Madrid: Sequitur.

NSI. 2004. Annual Spanish national accounts. Base 2000. Accounting series 1995–2009. Madrid: National Statistical Institute.

———. 2019a. Annual Spanish national accounts. Base 2010. Accounting series 1995–2018. Madrid: National Statistics Institute.

———. 2019b. Quarterly Spanish national accounts. Base 2010. Madrid: National Statistics Institute.

———. 2019c. Annual Spanish national accounts. *Accounts of the institutional sectors*. Madrid: National Statistics Institute.

———. 2019d. Economically active population survey. Madrid: National Statistics Institute.

———. 2019e. Statistical use of the Central Business Register, CBR. Madrid: National Statistics Institute.

OECD. 2020. OECD.Stat. Paris: Organisation for Economic Co-operation and Development.

Pérez, Francisco. 2013. *Crecimiento y Competitividad. Los Retos de la Recuperación*. Valencia: Fundación BBVA-Ivie.

Pérez-Infante, José Ignacio. 2013. Crisis, reformas laborales y devaluación salarial. *Relaciones Laborales* 10: 69–96.

Potts, Nick. 2011. Marx and the crisis. *Capital & Class* 35 (3): 455–73.

Puente, Sergio, and Sofía Galán. 2014. Un análisis de los efectos composición sobre la evolución de los salarios. *Economic Bulletin* 2: 57–61.

Roberts, Michael. 2016a. *The Long Depression*. London: Haymarket.

———. 2016b. Monocausality and crisis theory: A reply to David Harvey. In *The Great Financial Meltdown. Systemic, Conjunctural or Policy Created?*, ed. Turan Subasat, 55–72. Northampton, MA: Edward Elgar.

Rodríguez, Emmanuel, and Isidro López. 2011. Del auge al colapso. El modelo financiero-inmobiliario de la economía española. *Revista de Economía Crítica* 12: 39–63.

Ruiz-Gálvez, M. Eugenia, and Lucía Vicent. 2018. The Spanish labor market on the path of flexibility and wage devaluation. In *The Political Economy of Modern Spain*, eds. Luis Buendía and Ricardo Molero-Simaro, 98–123. London: Routledge.

Sanabria, Antonio, and Bibiana Medialdea. 2014. La Crisis de la Deuda en España: Elementos Básicos y Alternativas. In *Precariedad y Cohesión Social, Análisis y perspectivas 2014*, coord. Foessa Foundation, 63─70. Madrid: Cáritas.

Sanabria, Antonio, and Bibiana Medialdea. 2016. Lending calling. Recession by over-indebtedness: Description and specific features of the Spanish case. *Panoeconomicus* 63 (2): 195–210

Sawyer, Malcolm. 1985. *The Economics of Michał Kalecki*. Armonk, NY: M.E. Sharpe.

Shaikh, Anwar. 1990. *Valor, Acumulación, y Crisis*. Bogotá: Tercer Mundo Editions.

———. 2016. *Capitalism: Competition, Conflict, Crises*. New York: Oxford University Press.

Smith, Tony. 1990. *The Logic of Marx's Capital*. Albany: State University of New York Press.

———. 1999. Brenner and crisis theory: Issues in systematic and historical dialectics. *Historical Materialism* 5 (1): 145–78.

Taguas, David. 2014. *Cuatro Bodas y un Funeral: Cómo Salir de la Crisis sin Salir del Euro*. Barcelona: Deusto.

Torres, Juan. 2009. Crisis inmobiliaria, crisis crediticia y recesión económica en España. *Papeles de Europa* 19: 82–107.

Uxó, Jorge, Eladio Febrero, and Fernando Bermejo. 2015. Reforma laboral, devaluación salarial y empleo: Una perspectiva macroeconómica. *Revista de Economía Laboral* 12: 201–47.

Vara, Óscar. 2009. Causas de la crisis financiera en el caso español. *Cuadernos de Economía* 32 (88): 141–58.

Weeks, John. 2009. *Teoría de la Competencia en los Neoclásicos y en Marx*. Madrid: Maia.

## Author Biography

**Juan Pablo Mateo** works in the department of Applied Economics, Structure and History, Complutense University of Madrid (Spain), and is researcher at the Euro-Mediterranean University Institute (EMUI). His last book is *The Theory of Crisis and the Great Recession in Spain* (Palgrave MacMillan 2019). He is interested in the theory of crisis in political economy as well as the process of capital accumulation in advanced and peripheral economies.