

# Profits and extraordinary profits in the Spanish economy during the 2000's

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## Abstract

This paper intends to explain the sources of profits in the Spanish economy during the last decade, a period of time that comprises several years of sustained growth (2000 - 2007) and the years since the global financial crisis, which started at the end of 2007. First, we will examine briefly the theory of profits in the history of economic thought, seeing that despite the importance of profits for a capitalist system, economists have tended to ignore them, not offering any explanation about their determination and generation. Then, we will look at the evolution of profits in the Spanish economy in the period 2000-2011. Doing this, we will take advantage of the method first devised by Jerome Levy and Michal Kalecki in the 1910's and 1930's, respectively. We will see that, contrary to the general belief among economists and businessmen, profits LK have soared since the beginning of the crisis in 2007, due mainly to the huge government deficits and the improvement in the foreign sector. Finally, we will compare our measure of profits against other common measures, such as the Madrid Stock Exchange volume of profits or the Bank of Spain's Central Balance Sheet Data Office, focusing on the impact of capital gains on the business sector and concluding that the prospects for profits in the following years are quite gloomy.

## Keywords:

National accounts, Business profits, Sources of profits, Levy-Kalecki's profit equation, capital gains.

## JEL classification:

E00, E12, E20, O50.

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# Beneficios y beneficios extraordinarios en la economía española durante la década del 2000

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## Resumen

El presente artículo intenta explicar los determinantes de los beneficios en la economía española durante la última década, período de tiempo que comprende varios años de crecimiento continuo (2000-2007) y los años desde el comienzo de la crisis financiera global, que comenzó a finales de 2007. En primer lugar, examinaremos brevemente la teoría de los beneficios en la historia del pensamiento económico, subrayando que, a pesar de la importancia de los beneficios para un sistema capitalista, los economistas han tendido a ignorarlos, ofreciendo pocas explicaciones sobre su determinación y generación. En segundo lugar, mostraremos la evolución de los beneficios en la economía española en el período 2000-2011. Para tal fin, usaremos el método desarrollado por primera vez por Jerome Levy y Michal Kalecki en la década de 1910 y 1930, respectivamente. Veremos que, en contra de la creencia generalizada entre economistas y empresarios, los beneficios LK han aumentado desde el inicio de la crisis en 2007, debido principalmente a los enormes déficits gubernamentales y a la mejora del sector exterior. Por último, compararemos nuestra medida de los beneficios contra otras medidas habituales, tales como el volumen de beneficios de las empresas de la Bolsa de Madrid o los datos de la Central de Balances del Banco de España, centrándonos en el impacto de las ganancias de capital sobre el sector empresarial y concluyendo que las perspectivas de los beneficios para los próximos años son bastante negativas.

## Palabras clave:

Contabilidad nacional, beneficios empresariales, determinantes de los beneficios, ecuación de beneficios Levy-Kalecki, ganancias de capital.

## ■ 1. Historical introduction

It is surprising to detect the scarce interest paid by economists to the theoretical aspects of the determination of profits in a capitalist economy. In principle, it is an atypical situation, given the importance everybody concedes to profits as the driver of capitalist economies and their important role in the accumulation of capital and economic growth. In fact, the entire history of the theory of profits has been advanced besides the development of capitalism, with very little relevance to the practical affairs of capitalists and investors.

The first effort to develop a comprehensive theory of profits was made by Classical economists, especially by Adam Smith, David Ricardo and Karl Marx. According to them, profits were central for the accumulation of capital and economic growth. David Ricardo was the first to develop a model where profits could be calculated once land rent and wages were deducted from income. Profits were a residual, because land rent (determined by the rent of marginal land) had priority in distribution over the rest of incomes, and wages were fixed at the subsistence level. In this way, Ricardo was able to integrate profits into his framework and even offer a profit theory for the long-run. Several decades later, and along Ricardo's lines, Marx put profits front and centre, pointed to them as the main engine of the capitalist economy and eventually its main contradiction, due to their falling trend provoked by the *fundamental laws* of capitalism. It is worthwhile to note that all these theories were conceived under a very general framework of how an economic systems works, being the scope more macro than micro.

This tradition was not followed by neoclassical economists, who were more focused on the theory of prices and markets at the microeconomic level. Profits for the neoclassicals are always equal to the marginal product of capital, so there is no need to find any further explanation. This is also true of the macro distribution models started by Robert Solow in the 1950s.

On the other hand, in the orthodox theory of the firm, built on the concepts of perfect competition and perfect capital markets, the relationship between realized profits - or cash-flow, the exogenous variable mostly considered - and investment is not clear. Investment depends on investment opportunities (expected profits), without any limits in their financing. Every investment is carried out *once the cost of capital is covered*. If one leaves the world of perfect markets and ventures into the field of asymmetric information (Myers and Majluf, 1984) and managerial discretion (Jensen, 1986), we find a bunch of models that shed light on the positive relation between cash-flow and investment; ideas very common among business managers that have received empirical support in Fazzari *et al.* (1988). Thus, the importance of cash-flow is greater

in smaller businesses than in bigger ones (Carpenter and Guariglia, 2003), investment (or unproductive overinvestment) is greater in businesses with a larger degree of managerial discretion (Jensen, 1986) and the influence of cash-flow is greater in financial systems where capital markets prevail than in systems with predominance of banking finance - i.e. United Kingdom vs. Germany (Bond *et al.*, 2003). In any case, this plethora of studies focused on the relationship between cash-flow and investment has not exerted any *influence* on economic modeling nor in the theory of the determination of profits itself.

If the theoretical aspects of the generation of profits have been so overlooked as to justify the lack of contributions in the field - this is the impression given; for instance, in most introductory or intermediate economics textbooks (Carlin and Soskice, 2006; Froyen, 2009; Romer, 2011; Blanchard, 2012), no references to profits are made, it is more surprising to see that its empirical analysis has suffered the same fate. In the various books on the structure of the Spanish economy (Banco de España, 2005; Tamames and Rueda, 2008; Chacón, 2009; García Delgado and Myro, 2011), there is no chapter or section that gives us an indication or an idea of the business profits generated in the economy; in fact, in most of them they do not even appear as a topic.

Out of the materials cited above, the situation is something better, but still deficient. There are a limited number of empirical studies about the volume of profits and the rate of profit in different countries (Bowles *et al.*, 1986; Duménil and Lévy, 1993, 2011; Kliman, 2012). The main drawback of most of these studies is the difficulty of data comparisons due to the different methodologies used and usually the lack of a solid accounting formulation that serves as a base. Moreover, most of them are constructed from a Marxist approach, which is not attractive for most of the economists, ensuring thus a limited influence in the profession. Nevertheless, the current situation is far better than it was 10 years ago, and it might be that we are at the beginning of a critical takeoff phase in this field.<sup>1</sup> The present paper is a contribution in that direction.

## ■ 2. Kalecki's profits equation

Before we continue with the analysis of profits in the Spanish economy in the last decade, we must provide an introduction of the theoretical approach advocated here. The approach of examining the sources of profits at the macroeconomic level appears for the first time in the economic literature in the writings of Jerome Levy in the 1910's

<sup>1</sup> Over the last 30 years there has emerged an industry in which the understanding of profits is central. Somewhat outside the conventional theory, a powerful financial theory of stock markets has been developed at the service of the financial advisory service industry, and it is increasingly encroaching on several areas of economic theory. See Montier (2012).

and Michal Kalecki's in 1930's, although Kalecki had discovered the equation a few years earlier (Levy, 1943; Kalecki, 1971). We may be startled to find out that it took so long to find a convincing method to determine the macroeconomic level of business profits, even more if we bear in mind that Classical economists, as we stated before, were always very concerned with income distribution. Probably, the revival of this approach was helped by the genesis of national accounting in the 1920's; indeed, Kalecki was one of the first to use national accounting such as we know it today.<sup>2</sup>

The difference between Levy and Kalecki's methods is that the former computes profits using data by institutional sectors (households, firms, etc.) while the latter calculates the amount of profits using income social categories (capitalists and workers). It is clear, however, that Levy's method has many advantages dealing with real data, given the actual display of national accounts. Kalecki's method, on the other hand, is more straightforward, and for this reason we think it is more suitable as an introduction.

In order to show the simplicity of the proof, Kalecki starts with an economy that may be conceptually divided between capitalists (whose income is capital rents) and workers (whose income is wages), with neither a public sector nor a foreign sector. Furthermore, he supposes workers do not save, spending all of their income in consumption. Under these assumptions, that we will remove later, we can obtain the macroeconomic accounting identity of the Gross Domestic Product (GDP), from the income and demand side:

$$C+I \equiv C_c+C_w+I \equiv W+P$$

Where  $C$  is total consumption,  $C_c$  is capitalist consumption,  $C_w$  is workers consumption,  $I$  is gross investment (both in fixed assets and in working capital),  $W$  is the wage bill and  $P$  is gross business profits (profits before capital consumption).

Given we have assumed workers' saving is nil,  $W$  is identical to  $C_w$ , so we can cancel them to get:

$$P=C_c+I \tag{1}$$

This expression, known as the simple Kalecki's profits equation, states in our simplified framework that gross business profits — the sum of the profits from the non-financial and financial sectors — are equal to capitalist consumption plus gross

<sup>2</sup> However, unlike Kalecki, Levy did not derive his formula starting from general macroeconomic aggregates, but from a perfect count of all possible transactions that a firm can do at individual level, and from there adding step by step these operations between firms until he reached aggregated profits (Levy, 1943, 2001).

investment. Note that the expression is not longer an accounting identity, given that we have introduced a behavioral assumption: workers do not save.

At first glance, the equation may create some confusions surrounding its interpretation, since it establishes that profits move in the same direction and amount that capitalists' consumption, when common sense tell us just the opposite. What it is happening here is that, although at microeconomic level it seems a contradiction (someone who 'consumes' more has less 'wealth'), at macroeconomic level capitalists' consumption is a stream of revenue from some capitalists to others.

Investment or consumption of some capitalists creates profits for others [...] Thus capitalists, as a whole, determine their own profits by the extent of their investment and personal consumption. In a way they are 'masters of their fate'; but how they 'master' it is determined by objective factors, so that fluctuations of profits appear after all to be unavoidable. (Kalecki, 1971, pp. 12-13).

Thus, Kalecki obtains the *total volume* of profits in a simple and neat way.

Then, Kalecki removes the previous assumptions to reach a more general equation, including public and external sectors and allowing workers to save some part of their income. As before, we can start from the two definitions of GDP, but now taking into account the public and external sectors' transactions:

$$W_{AT} + P_{AT} + T \equiv C_c + C_w + I + G + NX$$

Where  $W_{AT}$  and  $P_{AT}$  are wages and profits *after* taxes respectively,  $T$  is taxes (both direct and indirect taxes),  $G$  is government expenditures and  $NX$  is net exports. If we move taxes to the right-hand side of the identity and we deduct them from government expenditures, we will have the government sector's balance. Finally, if we also move wages to the right-hand side of the identity and we deduct them from workers' consumption we will have workers' saving. So we get:

$$PAT \equiv C_c + I - S_G + NX - S_w \tag{2}$$

Where  $S_G$  is government surplus and  $S_w$  is workers' savings.

The above expression says that macroeconomic *business gross profits*, now *after taxes*, are equal to capitalists' consumption, plus gross investment, minus (plus) government surplus (deficit), plus (minus) external surplus (deficit) minus workers' saving. It is

worthwhile to note that this expression is an accounting identity, since we have not now advanced any behavioral assumption (the term that stands for workers' saving could be positive or nil).

From the previous expression we can see that profits depend negatively on the government's surplus and workers' saving. Against the general opinion of many economists and even many 'captains of industry', a reduction in government or workers' spending reduces macroeconomic profits; here, 'abstinence' or 'austerity' reduces business profits, since a part of the wages paid to workers do no return to firms as income.

Furthermore, if the government deficit increases when investment and thus income declines, then profits will not fall as they would in the absence of the government deficit. In effect, Big Government rigs the economic game so that profits are sustained; by sustaining profits, government deficits can prevent the burden of business debt from increasing during a recession. Furthermore, if the deficit is large enough the burden of business debt may decrease during recessions. (Minsky, 1986, pp.165-166)

Finally, a surplus (deficit) in the external sector increases (reduces) profits in the same amount; here, the balance of payments works as a distribution mechanism of profits between capitalists of different countries, and, given that the balance of payments is, so to speak, the truly external part of the private sector of a country, an imbalance in the balance of payments has direct consequences in the other sectoral balances of the economy.

Finally, we have been discussing the profits equation with a causality component, in the sense that profits were determined by the rest of the terms of the equation. However, the equation as such is an accounting identity, and so it is illicit to suppose any causality relationship without previous justification.

If we start from the equation without government and external sector, and no workers' savings, profits will be determined by capitalists' consumption and investment, since:

Now, it is clear that capitalists may decide to consume and to invest more in a given period than in the preceding one, but they cannot decide to earn more. It, therefore, their investment and consumption decisions which determine profits, and not vice versa. (Kalecki, 1971, pp.78-79)

Thus, Kalecki is clear about the causality between profits and investment and capitalist consumption. However, he did not address the causality analysis for the rest of the components. Nevertheless, Giovannoni and Parguez (2005) have showed with an unrestricted VAR model (more precisely, with a vector error-correction model, which by definition does not suppose any behaviour *a priori*) and with Granger's causality tests that profits are the most endogenous variable of the system, both in the short-run and in the long-run (Giovannoni and Parguez, 2005, p. 14). Their main results are:

1. Profits cannot be said autonomous, i.e. profits are very much more 'caused' (or determined) variables than 'causing' (or determining) variables.
2. *In the short run*, profits do always depend upon *demand variables*, especially upon consumption, indebtedness and government spending;
3. *In the longer run*, profits are again found to be dependent variables, but the factors determining profits behavior are more *income-variables*, especially rents.
4. 'Discipline' policies are doomed to fail until the desirable goal of balancing the budget is understood as a *means rather than a natural outcome* of a demand-driven growth. (Giovannoni and Parguez, 2005, p. 1, *emphasis original*).

We can provide a heuristic analysis to shed some light into these results. In the case of workers' saving, it is clear that it is a case symmetrical to capitalists' consumption: workers can decide how much they will save but capitalists cannot decide how much they will earn. The relationship with exports and imports is also quite neat: although it could be argued that a higher level of profits might lead somehow to an increase in imports (it might be due to an increase in the imported capital goods), it would be only after a certain period of time, while *the impact of exports is instantaneous* – as soon as the firm books the transaction in its profit and loss statement. Finally, the same reasons can be applied to the government's balance. While an increase in profits raises corporate income tax (improving then the government's balance), it must be taken into account that the government revenues for this year depend on the profits of the last year, while the impact of government deficit on profits is, again, instantaneous: as soon as the firm books the transaction in its profit and loss statement – it must be noted that some of the government expenditure could go to other sector of the economy, so in that case that amount would have to be adjusted.<sup>3</sup> That is true that in any complex system, virtually every variable is to a certain extent *endogenous*, but in this case there are good reasons to consider profits as the residual of the 'economic machine' (a claim that will sound very natural for an businessman, who finds the profit at the end of the year after a series of transactions with the rest of the system).

<sup>3</sup> In the case of going abroad, that government expenditure would not have any direct effect on profits.



Therefore, we can suppose a causality from profits sources to profits, and not vice versa, and so to obtain an equation that serves to explain the fluctuations of profits referring to their sources.<sup>4</sup>

### ■ 3. Levy's profits equation

We can now move on to the Levy's profits determination,<sup>5</sup> which has the important advantage to express profits in sectoral terms, rather than in income social categories (capitalists and workers). If we start from the investment-saving identity, considered as net investment and net saving (deducted capital consumption):

$$I = S$$

Total savings can be expressed as the sum of sectoral savings, i.e.:

$$I = S_H + S_E + S_G - NX$$

Where  $S_H$  is the saving of the household sector,  $S_E$  is financial and non financial business saving,  $S_G$  is the budget balance of Government and  $NX$  is net exports (it has negative sign because is a dissaving for the rest of the world). Taking into account that  $S_E$  stands for *net profits after taxes and dividends*, we get the following expression:

$$NP_{ATD} = I - S_H - S_G - NX$$

Where  $NP_{ATD}$  is net profits after taxes and dividends – that is to say, retained earnings. If we add dividends, we get the following expression:

$$NP_{AT} = I - S_H - S_G - NX + D \quad (3)$$

The meaning is identical to the Kalecki's equation, but now profits are expressed as the sum of investment, dividends and three sectoral balances, and not as class income balances. The difference now is that profits are *net profits after depreciations*, or profits

<sup>4</sup> The causality about the basic macro accounting identities has been a lively topic in the heterodox schools (especially among post-Keynesians). For instance, the New Cambridge tradition in the 1970s took the balance of the private sector as given by a stock-flow norm, the ratio between disposable income and the financial assets hold by the private sector (Zeza, 2009; Shaikh, 2012), with the result that government and external balances showed the twin-deficit outcome. Recently, a new baking of these models has proved their superiority in forecasting the last two financial crises (Godley, 1999; Zeza, 2009; Bezemer, 2010). Although these models bear some resemblance with the Levy-Kalecki's approach advocated here, we will not follow their analysis in the paper, because these models usually treat the private sector as a whole, without any distinction between households and corporations. An up-to-date reference in the field is Papadimitriou and Zeza (2012).

<sup>5</sup> In fact, the actual derivation corresponds to Levy et al. (1997), as it has mentioned earlier, Jerome Levy derived the equation in a different way. See Levy (2001).

as any accountant would understand them. In any case, depreciations may be added or removed in (2) or (3) to get an identical result.

Finally, we would like to add an important remainder here. The Levy-Kalecki's approach of the generation of profits and national accounts, since they deal only with the flows of real transactions, neglects a fundamental component of business profits, *the extraordinary results* (i.e. capital gains), in the sense of profits derived from the change in the valuation of assets. That is to say, in order to get *the real magnitude of business profits* we had to include in the Levy-Kalecki's equation these extraordinary profits. Thus, this definition of macroeconomic profits (Levy-Kalecki's profits plus extraordinary ones) is very similar to the definition of corporate profits after taxes as any business accountant might understand it. The omission of extraordinary profits, as we will see later, can lead to serious misunderstandings of the profits trend in the last few years.<sup>6</sup>

#### ■ 4. An analysis of the profits sources in the last decade

We can now use this theoretical framework to understand the performance of Spanish macroeconomic profits during the last decade.<sup>7</sup> We will take the advantage of the Levy's formulation, because as it was explained above, it has the advantage to be framed in sectoral terms, being the magnitudes of the national accounts directly applicable. Therefore, the following analysis is carried out using equation (3). The data of the Spanish national accounts are accessible in the Central Bank of Spain webpage.<sup>8</sup>

The Spanish national accounts are framed in the *European System of National Accounts 1995 (1995 ESA, hereafter)* methodology (Banco de España, 2011), which is the European version of the *System of National Accounts 1993 (1993 SNA, hereafter)*. For our purposes, it is worthwhile to note that, unlike the United States national accounts (*NIPA*), neither the *1995 ESA* nor *1993 SNA* present series of corporate profits.<sup>9</sup> In

<sup>6</sup> In the rest of the paper, we will stick to the term *extraordinary profits* rather than *capital gains*, using thus the terminology applied by financial accountants at the level of the firm.

<sup>7</sup> Because it is not the purpose of this paper, we will treat profits as a whole, and we will not make any distinction between the evolution of profits in the non-financial sector and the evolution of profits in the financial sector, being this point an area with importance on its own for further research. Although recently an important interest on the process of financialisation and its ties with the (functional) income distribution has begun to emerge (Stockhammer, 2004; Onaran et al., 2011), little attention has been paid to the effects of financialisation on the distribution of profits.

<sup>8</sup> The link is: <<http://www.bde.es/webbde/es/estadis/ccff/cfcap1.html>> 

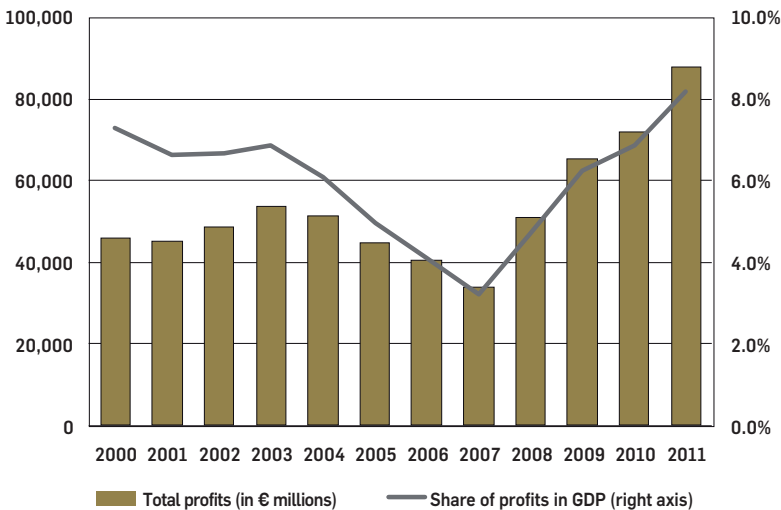
<sup>9</sup> It does not mean that macroeconomic profit series are unavailable for these countries. The statistical agencies of these countries report GDP with the income side identity, so profits can be readily obtained. What it means is that profits are not in the set of accounts of the 1995 ESA framework. The closest proxy reported for profits in the 1995 ESA is the item called gross saving. We had to sum the gross saving of the non-financial and financial sector to get this proxy for profits. The largest difference between gross savings and profits is mainly due to the exclusion of fixed capital depreciation.

fact, this is one of the differences that ‘will most likely continue’ between the NIPA and the 1995 ESA (Lequiller and Blades 2006, p.353), due mainly to the traditional public concern on profits in United States.<sup>10</sup>

As we have said before, all the items in equation (3) have readily counterparts in the national accounts. Investment,  $I$ , (called *gross capital formation* in the national accounts) is probably the less straightforward concept, because it is made up not only by gross fixed capital formation, but also by change in inventories and by acquisitions less disposals of valuables of the private sector (government investment is included in the government sector). Because depreciation is an expense in the accounts of the firms, the investment reported here is *net of depreciation* – if we would like to carry out the analysis in terms of cash-flow, depreciation should not be removed. The term  $NX$  stands for the external balance and the term  $D$ , dividends, is calculated summing the dividends paid to the rest of the sectors by non-financial and financial corporations. Finally, the household and government savings have direct counterparts in the national accounts, and for our purpose no additional adjustments are required.

Figure 1 displays the Levy-Kalecki profits series obtained according to equation (3). We can appreciate the oscillations of this variable, which is very counterintuitive at first glance to conventional wisdom.

**Figure 1. Evolution of business profits in Spain and their share in GDP according to the LK equation, 2000-2011.**



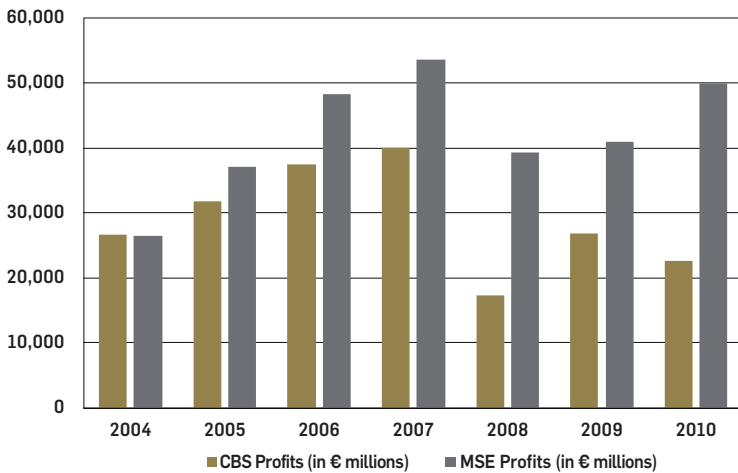
SOURCE: BANCO DE ESPAÑA.

<sup>10</sup>The corporate profits reported in the United States national accounts are the Levy-Kalecki profits. Therefore, the reason to compute profits in this case using Levy-Kalecki's way is to obtain a breakdown of their sources. In the case of the ESA 1995, because profits are missing, the Levy-Kalecki approach also allows to obtain the profits series.

The Levy-Kalecki profits (LK profits from now on) in the Spanish economy reached a pre crisis peak of €73bn. in 2003, diminishing to €37bn. in 2007, then rebounding to €82bn. in 2011, the record amount of the series. The “counterintuitive” aspect of the series so calculated is that an observer of the economic situation in the boom period would have normally thought that profits would be increasing, surpassing the figures of the previous years and in correspondence with the evolution of the stock market. In the year 2011, the same observer would have been surprised looking at the evolution since 2007, being the level of profits in 2011 two and half times more than 4 years before.

We can compare this assessment of the Spanish business profits against two other profits series: the profit series of the Madrid Stock Exchange<sup>11</sup> (MSE hereafter) listed companies and the Central Balance Sheet Data Office<sup>12</sup> (CBS hereafter) series; both of them offer us the data that provides the basis for the conventional feeling about the evolution of profits in this period, which reached its peak in 2007, then falling in 2008 and not recovering the pre crisis levels since then. This evolution is shown in Figure 2.

**Figure 2. Evolution of profits reported by the Central Balance Sheet Data Office and Madrid Stock Exchange, 2004-2010.**



SOURCE: MADRID STOCK EXCHANGE AND CENTRAL BALANCE SHEET DATA OFFICE.

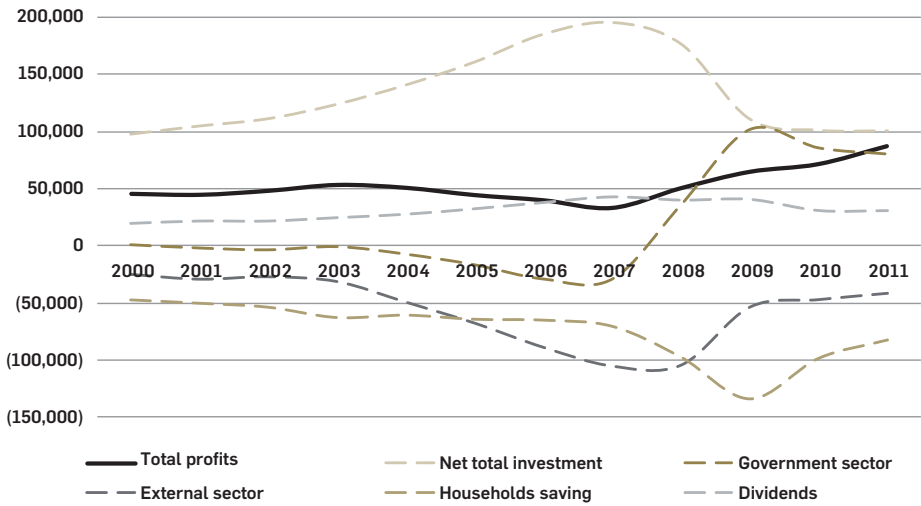
How can we explain the difference between LK profits and the series presented in Figure 2? Which one allows us to understand better the working of an economic system?

<sup>11</sup> The data is provided by BME. <http://www.bolsamadrid.es/ing/portada.htm>.

<sup>12</sup> Documents about Central Balance Sheet Office and the data may be found in <http://www.bde.es/webbde/en/areas/cenball/>.

The traditional way in which businesses present their profits (the way used by the MSE and the CBS), although it is suitable for the understanding of profits at enterprise level does not offer many clues about the profits sources at macroeconomic level. The LK equation has the advantage that it allows us to track the sources where profits are generated from very concrete macroeconomic aggregates (i.e. investment, government and external balance), tying thus profits evolution to economic activity. Figure 3 do this, rendering the evolution of profits and their components according to Equation (3):

**Figure 3. Evolution of macroeconomic profits and their sources in Spain, 2000-2011, in € millions.**



SOURCE: BANCO DE ESPAÑA.

Due to its magnitude, investment is normally the main source of business profits, and in the Spanish case it has not been an exception. The graph shows clearly the expansion period during the years 2000 - 2007, in which investment grew at a compounded annual growth rate of 10.2%, the recession period, in which investment shrank by 27.1% in respect to its peak in 2007, and the plateau period, marked by the constancy in the level of overall investment in the last three years. Most of the investment growth has come from the household sector - the huge real estate bubble - growing from €46bn. in 2000 to €101bn. in 2007, bursting in 2008 and decaying thereafter.

Regardless of the sectoral evolution of investment, we have seen earlier that every penny spent in investment raises profits by the same amount, by mere accounting tautology. Viewed from this point of view, the increase in investment in the period 2000 - 2007 represents a source of profits, while the period since 2007 represents

a contraction for profits as investment fades.<sup>13</sup> This can also be shown in Figures 4 and 5, which analyse the evolution of the sources of profits in two separated 5-year periods: the first one covering the years 2003-2007 and the second one (the crisis period) covering the years 2007-2011. In the first period, investment appears as a positive item for profits, due to its relative increase in 2007 to 2003, while in the second period appears as a negative item.

The other two components that have a major impact on the oscillation of profits are government and external balance. Due to the government surplus observed in 2005, 2006 and 2007, the government balance contributes negatively to profits generation. However, it has been the main source of profits in the crisis period, having contributed on net terms €110bn. Thus, the government deficit has buttressed during the last five years the profit and loss account of Spanish firms: without this deficit many of them would have gone bankrupt. This may seem contrary to the conventional wisdom of many businessmen and economists, who think that government deficits hamper the private sector of the economy.

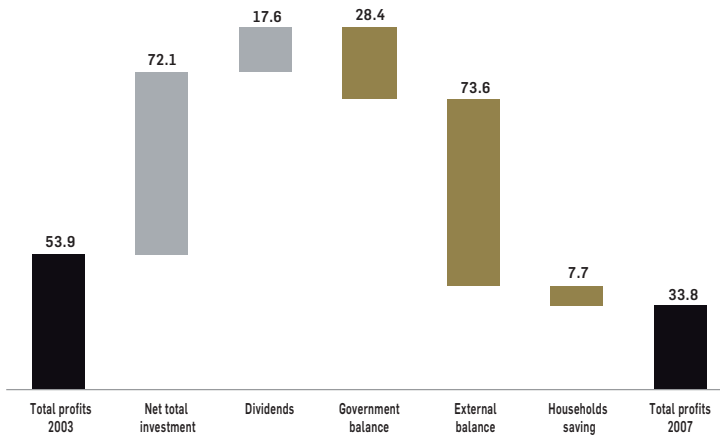
The balance of payments is an even less intuitive component for the profits of a country. In general, a deficit in the balance of payments is analyzed as a negative contribution for the GDP, but without neat consequences on business profits. However, as we have seen before, the LK equation unveils us the incidence of the balance of payments on business profits, being the surplus a contribution to profits and vice versa. Businessmen of an external deficit country can only attain a healthy position in their books if the rest of the economy is subjected to strong structural imbalances, such as big government deficits and large private investments (housing and business investment). In the case of the Spanish economy, the external balance has played an important role, since it has traditionally been the item with a major negative impact on profits. Figure 4 shows that in the period 2003-2007 the current account deficit increased €73bn., being the main cause of the little generation of profits in the year 2007, that only amounted to €33bn.

Regarding household saving, it is an item with less variation than the previous two concepts. However, it is worthwhile to highlight the figure of 2009, when a high level of saving was generated, mainly explained by the adjustments of households in their budgets in a crisis situation. In the following years, savings have been declining as household income (mainly wages) has been dwindling, leaving households with less capacity to change their consumption-saving decisions, leading to an increase in profits.

<sup>13</sup> We are speaking in relative terms, that is to say, the contribution of the change in the level of investment to the absolute level profits between two points of time. Remember that investment, regardless of dividends, is the only source of profits that is always a contribution to profits, since the rest of the components can be a contribution or a drag.

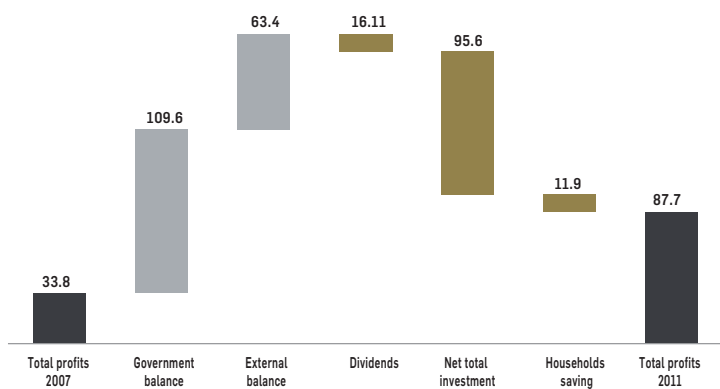
Finally, the component of dividends, which affects profits mainly through a higher household consumption, increased during the period 2003-2007 and declined during the following years. At first glance, it may turn out counterintuitive that dividends have been raised just when profits have declined, and vice versa, that dividends have declined just when profits have shown such a huge increase, as one would expect dividend policy to go hand in hand with profits, as it occurs in any firm. We will answer to these and other questions in the next section, where we will make some more precise statements about the profits we have calculated and their comparison with MSE and CBS profits.

**Figure 4. Accumulated growth in profits 2003-2007, as per source (in € billions)**



SOURCE: BANCO DE ESPAÑA.

**Figure 5. Accumulated growth in profits 2007-2011, as per source (in € billions)**

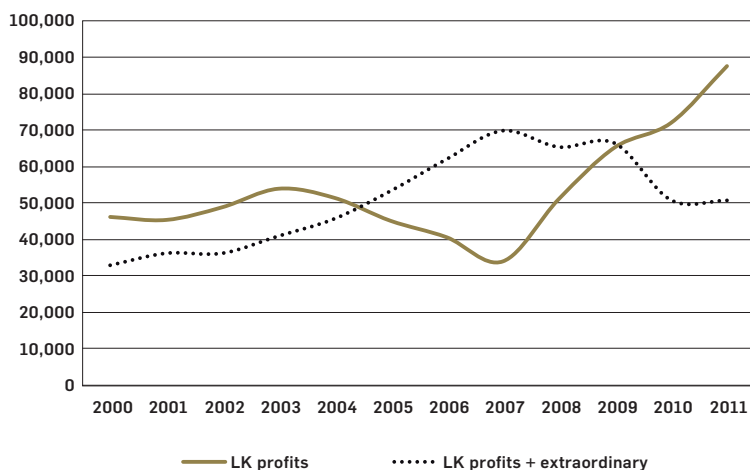


SOURCE: BANCO DE ESPAÑA.

## ■ 5. The importance of extraordinary profits

As we said earlier, the LK framework neglects a fundamental component of business profits, the extraordinary results. The MSE and CBS series showed the divergence of the evolution of profits with respect to the LK series. However, these series have less coverage in terms of number of firms, and so they do not allow us to make a comparison in absolute terms with the LK series. To this end, we have created a proxy of business profits, including extraordinary ones, calculating them as a stable relation to dividends; that is to say, it has been supposed a constant pay-out ratio, equal to the average pay-out of the considered period. As we have applied the pay-out ratio to LK profits, we have labelled this new series *LK profits plus extraordinary*. Figure 6 displays the differences between both series.

■ **Figure 6. Evolution LK profits vs. LK profits + extraordinary (in € millions), 2000-2011**



SOURCE: BANCO DE ESPAÑA AND OWN ELABORATION.

This new series looks like the MSE and CBS ones. The oscillations in extraordinary profits are very important for the behaviour of reported business profits, being their main component in the boom period 2003-2007 and affecting negatively thereafter. This behaviour is mainly related to the evolution of asset prices, increasing in periods of expansion (and with them the size of balance sheets) and declining in recession periods (producing a shrinkage in balance sheets). This behaviour also displays positive feedback effects: assets with ever increasing prices generate extraordinary profits, which in turn generate higher valuations. Therefore, in some periods balance sheet effects are as important as flow effects traditionally considered by economists. While economic literature has produced a huge amount of research in the last 60 years about the wealth effects on household consumption (Slacalek 2009; Sousa, 2009), very little has been said about the impact of these effects in the business sector.



So, an analysis of extraordinary profits is fundamental to achieve a comprehensive framework of business profits evolution.

Although it is not the purpose of this paper, because the subject would deserve a separate paper, we may try an estimate of the evolution of total profits — LK plus extraordinary — in 2012. At first glance, the only component we expect to improve in 2012 is the external sector, with an improvement of €10bn. in current account taking into consideration the evolution in the first half of the year, but depending critically on the price of oil and the decrease in imports on the second half of the year. The rest of the components will probably contribute negatively, specially fixed capital investment and government balance, although the latter depending on the success of the austerity measures put forward by the Government. Regarding to household saving, the trend signals similar figures (a larger propensity to save matched by a lower level of household income), with no effect on profits. Finally, dividends are expected to shrink, as provisions of financial sector will impact heavily on while non-financial firms are announcing dividend cuts.<sup>14</sup> On the whole, we may surmise a level of LK profits on 2012 around €75 bn. Capital gains will contribute negatively to total profits as write-downs in the banking industry substantially increase due to regulatory requirements.<sup>15</sup>

## ■ 6. Conclusion and final remarks

From Classical economists, profits have been considered the fundamental engine of capitalist economies and their main motivator. However, economists today advance their theoretical models and formulate their forecasts with no reference to any estimation of macroeconomic profits, not even knowing what factors at the macroeconomic level determine them. In this regard, the equation derived independently by Levy and Kalecki provides a neat and convincing explanation about the process of profits generation in any economy.

With the help of this equation, we have analyzed the profits generation pattern of the Spanish economy during the last decade, showing that during the last few years there have been two different configurations: the boom period, marked by the reduction of LK profits and by the inordinate contribution of investment to profits, and the recession period, where LK profits have soared due to the reduction in the external deficit and the increase in government deficit, being the latter the automatic stabilizer which has prevented the total collapse of business profits.

<sup>14</sup> As in the case of Telefónica, announcing a cancel of its dividend for 2012.

<sup>15</sup> This forecast was made in June'12, prior to the sending of the first draft of the paper to the IAES. As of 27th November, we can read in the financial press that business profits have plummeted a 57% (from January to September), the biggest fall in the historical series. The article can be read in the following link: <http://www.expansion.com/2012/11/27/economia/1354020238.html>.


It has been seen that although the determination of profits through the LK method is a powerful tool, since it underlines the *operative* determinants of profits, it leaves out an important item for business profits, the extraordinary profits derived from asset price changes that we have called balance sheet effects. It has been shown that this item displays at the aggregate level procyclical behaviour, and once it is included in the LK equation, the profits so calculated fall close to the trend display by the MSE and CBS profits.

Finally, profits expectations for the next years are quite gloomy, as the main driver that has sustained profits in the last few years, the government deficit, will probably fade for the austerity measures imposed in the Euro area.<sup>16</sup>



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## ■ References

- Banco de España (2011). *Nota metodológica de las cuentas financieras de la economía española*. [online] Available at: <<http://www.bde.es/f/webbde/SES/Secciones/Publicaciones/Publicaciones/Seriadas/NotasEstadisticas/07/Fic/nest05.pdf>> [Accessed 25 January 2013]. 
- Bezemer, D.J. (2010). Understanding financial crisis through accounting models, *Accounting, Organizations and Society*, **35**(7), pp. 676–688.
- Blanchard, O. (2012). *Macroeconomics* (6<sup>th</sup> ed.). Pearson Ed., New Jersey.
- Bond, S., Elston, J.A., Mairesse, J. and Mulkey, B. (2003). Financial Factors and Investment in Belgium, France, Germany, and the United Kingdom: a Comparison Using Company Panel Data, *The Review of Economics and Statistics*, **85**(1), pp. 153–165.
- Bowles, S., Gordon, D. M. and Weisskopf, T.E. (1986). Power and Profits: the Social Structure of Accumulation and the Profitability of the Postwar U.S. Economy. *Review of Radical Political Economics*, **18**(1-2), pp. 132–167.

<sup>16</sup> See *previous footnote*.

- Carlin, W. and Soskice, D.W. (2006). *Macroeconomics: Imperfections, Institutions, and Policies*. Oxford University Press, Oxford, U.K.
- Carpenter, R.E. and Guariglia, A. (2008). Cash Flow, Investment, and Investment Opportunities: New Tests Using UK Panel Data, *Journal of Banking & Finance*, **32**, pp. 1894–1906.
- Chacón, E. M. (2009). *Economía Española* (2nd ed.), Ariel Economía y Empresa, Barcelona.
- Duménil, G. and Lévy, D. (1993). *The Economics of the Profit Rate*, Edward Elgar, Aldershot and Vermont.
- Duménil, G. and Lévy, D. (2011). *The Crisis of Neoliberalism*, Harvard University Press, Cambridge (USA).
- Fazzari, S.M., Hubbard, G. and Petersen, B.C. (1988). Financing Constraints and Corporate Investment, *Brookings Papers on Economic Activity*, **1**, pp. 141–206.
- Froyen, R. (2009). *Macroeconomics* (9th ed.), Prentice Hall, New Jersey.
- Giovannoni, O. and Parguez, A. (2005). What Drives Profits? An Inquiry into the Profit Paradox. *Eastern Economic Association Conference* (pp. 1–31), New York.
- Godley, W. (1999). *Seven Unsustainable Processes: Medium-Term Prospects and Policies for the United States and the World*, Levy Economics Institute of Bard College Special Report.
- Jensen, M.C. (1986). Agency Costs of Free Cash Flow, Corporate Finance, and Takeovers, *The American Economic Review*, **76**(2), pp. 323–329.
- Kalecki, M. (1954). *Theory of Economic Dynamics*, Allen and Unwin, London.
- Kalecki, M. (1971). *Selected Essays on the Dynamics of the Capitalist Economy*, Cambridge University Press, Cambridge (UK).
- Kliman, A. (2012). *The Failure of Capitalist Production*, Pluto Press, London.
- Lequiller, F. and Blades, D. (2006). *Understanding National Accounts*. OECD.
- Levy, D.A., Farnham, M.P. and Rajan, S. (2008). *Where Profits Come From*. Retrieved from <http://www.levyforecast.com/assets/Profits.pdf> 
- Levy, J. (1943). *Economics is an Exact Science*, New Economic Library, New York.
- Levy, J. (2001). Profits: the views of Jerome Levy and Michal Kalecki, *Journal of Post Keynesian Economics*, **24**(1), pp. 17–30.
- Minsky, H. (2008). *Stabilizing an Unstable Economy* (2nd ed.), McGraw Hill, New York.
- Myers, S.C. and N. Majluf (1984). Corporate Financing and Investment Decisions when Firms Have Information that Investors do not Have, *Journal of Financial Economics*, **13**, 187-221.
- García Delgado, J.L. and Myro, R. (Eds.). (2011). *Lecciones de Economía Española* (10<sup>th</sup> ed.), Thomson-Civitas, Madrid.
- Montier, J. (2012). *What Goes Up, Must Come Down!* [online] Available at: <http://www.zerohedge.com/sites/default/files/images/user5/imageroot/2012/02/Montier - What goes up must come down.pdf> [Accessed 26 January 2013]. 

- Onaran, Ö., Stockhammer, E. and Grafl, L. (2011). Financialisation, Income Distribution and Aggregate Demand in the USA, *Cambridge Journal of Economics*, **35**(4), pp. 637–661.
- Papadimitriou, D. and Zezza, G. (Eds.). (2012). *Contributions to Stock-Flow Modelling: Essays in Honor of Wynne Godley*, Palgrave MacMillan, Basingstoke.
- Romer, D. (2011). *Advanced Macroeconomics* (4<sup>th</sup> ed.). McGraw-Hill, New York.
- Servicio de Estudios del Banco de España (Ed.) (2005). *El Análisis de la Economía Española*. Alianza Editorial, Madrid.
- Shaikh, A. (2012). Three Balances and Twin Deficits: Godley versus Ruggles and Ruggles. In D. Papadimitriou & G. Zezza (Eds.), *Contributions to Stock-Flow Modelling: Essays in Honor of Wynne Godley* (pp. 125–137). Palgrave MacMillan, Basingstoke.
- Slacalek, J. (2009). What Drives Personal Consumption? The Role of Housing and Financial Wealth, ECB [WP1117], November.
- Stockhammer, E. (2004). Financialisation and the Slowdown of Accumulation, *Cambridge Journal of Economics*, **28**(5), pp. 719–741.
- Sousa, R.M. (2009). Wealth Effects on Consumption Evidence from the Euro Area, ECB [WP1050], May.
- Tamames, R. and Rueda, A. (2008). *Estructura Económica de España* (25<sup>th</sup> ed.). Alianza Editorial, Madrid.
- Zezza, G. (2009). Fiscal Policy and the Economics of Financial Balances, *European Journal of Economics and Economic Policies*, **2**(6), pp. 289–310.

