Dr Jens WEIDMANNPresident **DEUTSCHE BUNDESBANK**

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Madrid, 9 January 2017

Dear Sir,

We, the undersigned, a group of Spanish independent professors and economists, have recently undertaken an independent review of the Spanish National Accounts.

Since June 2016 we have been submitting the preliminary findings of our work to EC Vice-President Valdis Dombrovskis, EC Commissioner Pierre Moscovici and EP President Martin Schulz. In recent times, we have also included Eurogroup President Jeroen Dijsselbloem to this correspondence.

Due to the importance of the matter at stake, we are hereby sharing with you the final results of the aforementioned review.

In our previous correspondence with the above EU representatives we had highlighted our absolute certitude about the on-going manipulation of Spain's National Accounts. Our initial findings using the *activity indicators* method had revealed a difference of 18.6% between the 'official' and the 'real' GDP figures: our final conclusions show a deviation of 17.2%. Resorting to the *income* method (remunerations paid), we have obtained a discrepancy of 18%. Last but not least, the *expenditure* method has shown a deviation of 17.2%. The 3 annexes attached to this letter present our findings in detail.

In summary, all three methods used come to a similar conclusion: the difference between Spain's real GDP and the official GDP reported to the European Union is between 17 and 18%. In absolute figures, this means Spain's wealth amounts to EUR 894 billion – and not to EUR 1,090 billion. According to the figures published by the very Bank of Spain, our country's total debt (EDP debt of EUR 1,100 billion + other debt) was EUR 1,530 billion in June 2016. In the current context of manipulation of the Spanish National Accounts, such total debt represents...a 171% of the Spanish GDP.

We are aware that you might be wondering how is it possible that no other Spanish economists are denouncing such manipulation. The answer to such concern is very simple: we are independent analysts not tied to any Spanish political party and therefore the 'establishment' cannot exert any pressure over us. Our academic work in several Spanish universities has resulted in numerous publications and economics textbooks, and in addition has repeatedly predicted

with accuracy the evolution of the Spanish economy. Media records are available to check this statement, like for instance when we denounced the inaccuracy of the 2012 and 2013 GDP figures communicated to the EU (and finally corrected 4 years later by the Spanish National Institute of Statistics, INE: the 2012 GDP evolution from -1.37%, to -2.6%; in the case of the 2013 GDP, from -1.2% to -1.7%).

The consequences of our findings can no longer be ignored. The Spanish Government is reporting that in 2016 Spain will grow a 3.1%, following a 0.8% growth in Q1 2016, a 0.7% in Q2 2016 and a 0.7% in Q3 2016. In summary, a similar level of growth to the one reported to you in 2015.

Then how is it possible that all activity and demand indicators are collapsing? We kindly call your attention to the following figures:

Activity indicators

•	2015	1S2016	3T2016
Adjusted energy consumption (1) Industrial Production Index Cement apparent consumption Industrial confidence indicator	+1.6%	0.0%	0.0%
	+3.4%	+2.0%	+1.9% (July, August)
	+5.7%	-2.3%	-4.0%
	-0.3%	-2.5%	-3.8%
Demand indicators	2015	1S2016	3T2016
Availability of basic goods Sale large companies Vehicle registrations Freight vehicle registrations (2) Consumer Confidence Index Exports	+6.8%	+4.2%	-0.4% (July, August)
	+5.0%	+2.5%	+1.6% (July, August)
	+20.9%	+11.0%	+9.7%
	+35.9%	+14.7%	+10.6%
	+0.3%	-3.3%	-6.1%
	+4.3%	+2.4%	-1.8% (July, August)

^{(1) 90%} correlation with GDP growth.

The tables above demonstrate bluntly that the Spanish economy is decelerating and that Spain's 'real' growth is less than half the 'official' one. Is the EU leadership interested in getting an explanation about such discrepancies with the figures reported by the Spanish authorities?

We are not certain on whether the EU will act on the above, as we keep witnessing how the giant Spanish debt bubble keeps growing or how no one blushed when back in time the Spanish Government presented to the EU that the Spanish deficit for 2016 would be a 2.8% (a figure that we rendered pure and simple surrealistic in our articles in the Spanish media, all available for your perusal).

A few months after, the Spanish Government called for a new deficit target of 3.6%: the European Commission ended offering a 4.6% at the end of the day. In the first 7 months of the current year, the deficit has already reached 3.27%. Can anyone believe today that by the end of 2016 the deficit will stay at 4.6%? Moody's has just reported that such target is impossible to attain...

⁽²⁾ Almost perfect mathematical correlation with GFCF (gross fixed capital formation)

As usual, the Spanish Government keeps making promises that look sound 'on paper' by simply forecasting unrealistic growth rates that will eventually generate more fiscal income.

By now, we are certain you have become aware of the new evidence that makes it impossible for Spain to attain the deficit adjustments required by the European Commission: 4.6% of Spain's GDP in 2016, 3.1% in 2017 and 2.2% in 2018.

In 2016:

- Withdrawal of EUR 20.136 billion from the public Pension Fund, an amount equivalent to 1.8% of the GDP (and 50% higher to the one withdrawn in 2015). This move will result in a Social Security deficit higher than the one initially forecasted.
- Collapse of most demand and activity indicators (by more than 50% when compared to 2015), and in addition of fiscal revenues. According to the Spanish Tax Agency, fiscal income grew by 1.9% until October 2016 (compared to a 4.5% in 2015), income tax dropped by a 0.7% and VAT and Excise Duties grew at half the rate than in 2015.
- In conclusion (and after incorporating the latest budget deficit forecasts), we can already anticipate the deficit will reach 5% of Spain's GDP, 0.4% above the commitment made by the Spanish Government. The fact is that they are perfectly already aware than not meeting their commitments with the European Union does not imply any sanction whatsoever.
- In addition, it must be noted that the so-called Spanish Independent Fiscal Authority (AIREF) is performing quite poorly, as it seems to act more as another governmental institution rather than an independent entity. In December 2016 the AIREF still claimed that the Spain's Social Security deficit will reach 1.6% in 2016, when just the withdrawals of the public Pension Fund amount up to 1.8% of Spain's GDP.

In 2017:

- GDP growth is decelerating faster than the 'official' version communicated to the European Union. The rise in corporate tax rates and the new measures adopted (such as the removal of payment deferrals for corporate taxation and VAT) will make a negative contribution to SMEs and consequently impact employment and investment.
- The uncertainty derived from the new taxation measures mentioned above will deter international investment in the near future.
- The recently-appointed Secretary of State for Budgets and Public Expenditure, Mr Nadal, has openly admitted that the Pension Fund will be emptied by the end of 2017 and has called for the issuance of more public debt (EUR 5 billion in 2017, which will need to be increased to EUR 20 billion in 2018).

To our regret, we are already aware that the National Accounts submitted to the European Union are merely science-fictional. As a consequence, we are certain that next spring the European Commission will receive a new request from the Spanish Government to extend the budget deficit targets.

In our opinion, the time has come for a EU-led, independent, in-depth audit of the Spanish National Accounts. Ignoring the continued violations of deficit targets and the absence of structural reforms, and in addition shielding Spain's risk premium over and over, will ruin generations of Spaniards to come. Spain's future and that of the Eurozone is at stake.

Needless to say, we remain at your full disposal to introduce to you the complete findings of our study.

With our best wishes for 2017,

Yours faithfully,

Prof. Dr. Roberto Centeno Head of Economics Department School of Mining Engineering Technical University of Madrid

Juan Laborda Doctor in Economics

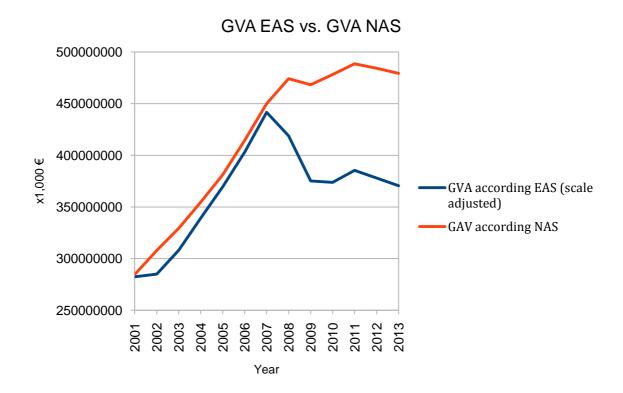
Juan Carlos Barba Economics Journalist

Juan Carlos Bermejo Entrepreneur, Engineer & MBA

ANNEX I – GPD ACCORDING TO THE SUPPLY METHOD (ACTIVITY INDICATORS)

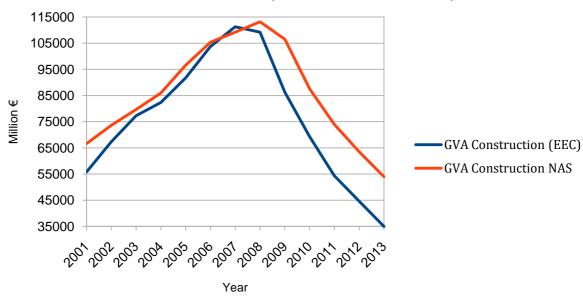
In order to provide an alternate valuation of the Spanish GDP, we have resorted to the following list of activity indicators: services GVA (gross value added), industrial GVA, construction GVA, and health & education expenditures plus the total compensation of public employees.

Evolution of services GVA: According to the Spanish National Accounts, its value grew from EUR million 450,076 to EUR million 479,328 in 2013. However, and according to official figures, the services GVA decreased by 18% during the same period. In brief, a difference of EUR million 110,625 between the Spanish National Accounts and this activity indicator must be noted.



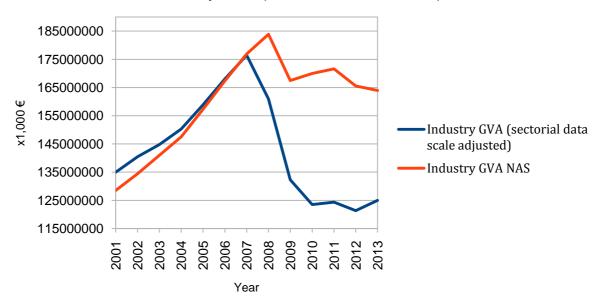
Evolution of construction GVA: According to the Spanish National Accounts, its value decreased from EUR million 109,192 to EUR million 53,948 in 2013. However, the construction GVA decreased by 68.6% during the same period. In this case a difference of EUR million 19,662 must be noted.

Construction GVA (NAS vs. Sectorial Data)



Evolution of industrial GVA: According to the Spanish National Accounts, its value decreased from EUR million 176,905 to EUR million 163,944 in 2013. However, the industrial GVA decreased by 29.62% during the same period (official figures are only available from 2012, but we can easily obtain an estimation since 2007 first deducting the total expenditure and adding afterwards the compensation of employees). In this case a difference of EUR million 38,695 must be noted.

Industry GVA (sectorial data vs. NAS)



Evolution of health & education expenditures, plus the total compensation of public employees: According to the Spanish National Accounts, the value of these budget lines grew from EUR million 158,626 to EUR million 177,503 in 2013. Unfortunately, the official figures no longer provide disaggregated data, but we have easily inferred how the referred indicators grew by 6.9% in the period (and not by a 11.9%, as indicated in the National Accounts). In brief, a difference of EUR million 7,551 between the Spanish National Accounts and this activity indicator must be noted.

We have experienced major difficulties to make an alternate valuation of the GVA evolution for *the financial and the primary sectors*. However, we cannot rule out additional major deviations in these two sectors given the important collapse of turnover in the financial sector during the period 2007-2013. An in-depth audit of the Spanish National Accounts carried out by the EU should explore this matter further.

To sum up, and taking into consideration the four indicators mentioned above, we estimate that the Spanish GDP is EUR million 176,173 inferior than the figures reported by the Spanish Government, a 17.2%

ANNEX II – GPD ACCORDING TO THE INCOME METHOD (REMUNERATIONS PAID)

In order to provide an alternate valuation of the Spanish GDP from this perspective, we have resorted to the following indicators:

- Labour cost index and social security affiliation data.
- Gross operating surpluses from corporate tax, taxable capital and business incomes.

Salaries grew in Spain a 9.9% in the period 2007-2013. As employment in the same period decreased by a 15.4%, we can easily conclude that the total payroll decreased a 7%. According to the Spanish National Accounts, such decrease amounted to a 7.1%, so in this case we have found no discrepancy with the official figures whatsoever.

Gross operating surpluses: According to the Spanish National Accounts, a decrease of 1.2% took place between 2007 and 2013. However, we witness a 43% decrease in the corporate tax income (from EUR million 186,640 to EUR million 106,449), a 44.8% decline in the case of the taxable capital income (from EUR million 130,842 to EUR million 72,269), and a 29.6% decrease in the taxable business income (from EUR 31,795 to EUR million 22,389).

According to the Spanish National Accounts, the gross operating surpluses represented a 43% of Spain's GDP in 2013, while the Spanish Tax Agency has reported a 42.5% decline in these incomes for the period 2007-2013 (instead of the -1.2% reported in the Spanish National Accounts).

To cut a long story short, the total decrease should be augmented by EUR million 184,241, a figure which represents an 18% of Spain's GDP.

ANNEX III – GPD ACCORDING TO THE DEMAND METHOD (EXPENDITURES)

This third annex compares the GDP evolution with that of a series of indicators that have presented historically a high correlation with GDP components. In this regard we have resorted to a publication from the very Spanish Ministry of Economic Affairs entitled 'Methodology review for the calculation of composite indicators of the Spanish economy'.

From the demand perspective, the GDP contains five main expenditure items, as follows: final consumption of households, government final consumption expenditure, gross fixed capital formation in construction, gross fixed capital formation in equipment, and the difference between imports and exports.

In Q4 2007 the aforementioned five expenditure items represented 95.3% of the Spanish GDP. For our alternate valuation of the GDP we will accept the figures of the government final consumption expenditure as correct, since we have no means to independently verify their validity. An eventual in-depth audit of the Spanish National Accounts carried out by the EU should dig further into this matter.

In our calculations for the period 2007-2013 we use deflated figures, and in addition we give more weight to the indicator that is more correlated (proportionate to the correlation itself). Into brackets we highlight a decimal number, which is the correlation with the aggregate figures reported in the National Accounts.

Final consumption of households: The Spanish National Accounts report a decrease of 13.7%. This figure is compared with three indicators (excluding vehicle registrations, which have decreased immensely during the period 2007-2013 and would therefore downsize/distort the results obtained):

- Indicator 1 Sale large companies (correlation = 0.74). We observe a decline of 22.9% in the period, a 26.3% when weighed.
- o Indicator 2 Availability of consumer manufactures (0.61). We observe a decline of 31.1% in the period, a 29.5% when weighed.
- Indicator 3 Deflated turnover of retail sales (0.58). We observe a decline of 26.5% in the period, a 23.9% when weighed.

The weighed average of the 3 indicators above is -26.6%. As the Spanish National Accounts report that the final consumption of households amounts to EUR million 587,600, the figure should be corrected to EUR million 499,766 (a difference of EUR million 87,834 for 2013).

Gross fixed capital formation in equipment: The Spanish National Accounts report a decline of 24.6%. Here, the Spanish Ministry of Economic Affairs recommends two highly correlated indicators:

- o Indicator 1 Availability of capital goods (0.82). We observe a decline of 42.7% in the period, a 46.4% when weighed.
- Indicator 2 Freight vehicle registrations (0.69). We observe a decline of 74% in the period, a 67.6% when weighed.

The weighed average of the 2 indicators above is -57%. As the Spanish National Accounts report that the gross fixed capital formation in equipment amounts to EUR million 60,400, the figure should be corrected to EUR million 34,446 (a difference of EUR million 25,954 for 2013).

Gross fixed capital formation in construction: The Spanish National Accounts report a decline of 46.5%. Here, the Spanish Ministry of Economic Affairs recommends three highly correlated indicators:

- o Indicator 1 Construction affiliation data (0.81). We observe a decline of 64.6% in the period, an 81.4% when weighed.
- o Indicator 2 Cement apparent consumption (0.61). We observe a decline of 80.8% in the period, a 76.6% when weighed.
- o Indicator 3 New construction permits / new surface to build (0.51). We observe a decline of 91.8% in the period, a 72.8% when weighed.

The weighed average of the 3 indicators above is -76.9%. As the Spanish National Accounts report that the gross fixed capital formation in construction amounts to EUR million 105,800, the figure should be corrected to EUR million 45,682 (a difference of EUR million 60,118 for 2013).

Difference between imports and exports: The Spanish National Accounts report similar figures to those reported by the Bank of Spain. However, we observe a discrepancy between the trade balance reported by the State Secretary for Trade (http://datacomex.comercio.es) and the one included in the Spanish National Accounts, the first entity reporting EUR million 2,522 less in Spain's commercial balance.

In summary, Spain's GDP should be decreased by EUR million 176,428 in 2013, a reduction of 17.2% in the country's GDP.