

## SPANISH ECONOMIC PROJECTIONS REPORT

### Summary

This report analyses the situation of and outlook for the Spanish economy. It has been prepared by the Directorate General Economics, Statistics and Research of the Banco de España, taking into account the information available to 7 March. Its time span covers the years 2008 and 2009. The report is in response to the commitment announced by the Banco de España last spring to regularly publish macroeconomic projections to enhance transparency in the diagnosis of the situation of, and the outlook for, the Spanish economy, in line with the practices of other central banks. The projections report will be published regularly in the March *Boletín Económico*.

The year 2007 saw a prolongation of the period of buoyant economic activity in Spain, with GDP growth of 3.8%, only 0.1 pp down on the previous year. This performance was compatible with an easing of approximately 0.5 pp in the contribution of national demand to growth, offset by a similar-sized improvement in the contribution of the external sector. However, following strong growth of 4.1% in 2007 Q1, activity gradually slowed to 3.5% in 2007 Q4.

The projections presented in this report point to a somewhat more marked slowdown in activity in the coming quarters. In the central scenario, GDP growth for 2008 is expected to be 2.4%. As in 2007, the moderation in growth stems from less vigorous national demand, particularly in investment, although household consumer spending is also expected to slow. Meanwhile, the contribution of net exports to growth is forecast to carry on improving due to the lesser pace of imports. This pattern of easing activity is projected to continue in 2009, with a GDP growth rate of 2.1% for the year as a whole, although output would begin to recover during that year. The slowdown in national demand will be milder than in 2008, although the containment of residential investment will become more marked. The external sector will once again make a positive contribution to growth, with exports increasing more than imports.

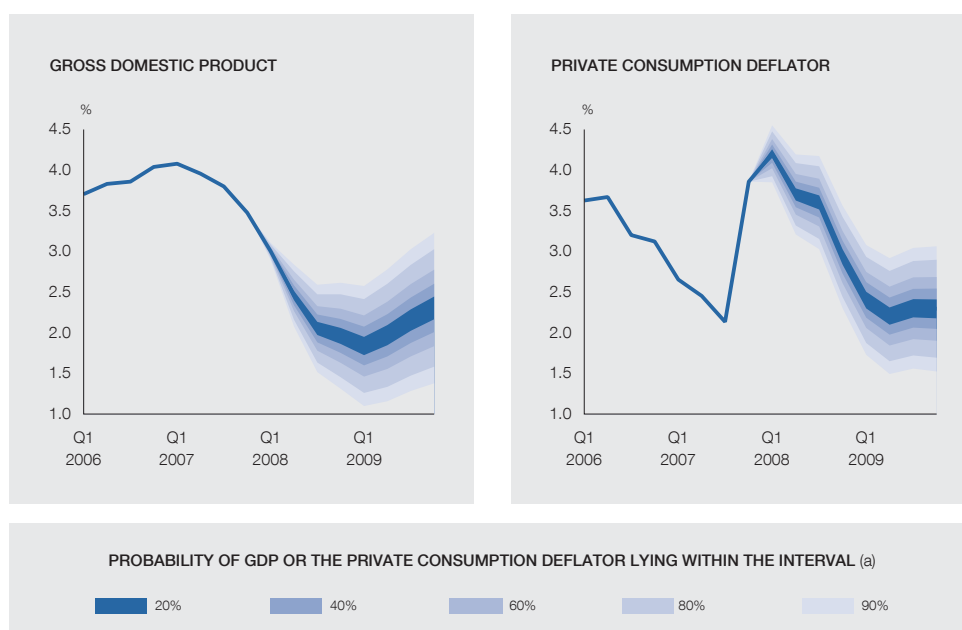
Turning to inflation, after averaging 2.8% for 2007, the private consumption deflator is projected to rise significantly in 2008 to 3.6%, due to dearer energy and processed food, since the other items are expected to dampen inflationary pressure. However, the inflation rate is estimated to fall in 2008 to below 3% in 2008 Q4. Should there be no further shocks on commodities markets, in 2009 the private consumption deflator is projected to fall significantly to 2.3%.

As with any economic forecast, the projections set out here are subject to considerable uncertainty, which increases as the forecasting horizon lengthens. In the current circumstances, this uncertainty is even greater than usual insofar as it is very difficult to forecast the future extent of certain events (such as commodity price rises or, in particular, financial turbulence) which have been significantly affecting the world economy in recent months. One way of representing this uncertainty is, on the basis of past forecasting errors, to show the bands within which each macroeconomic variable is expected to fall with a given probability. This is the approach which has been used to show the uncertainty surrounding GDP growth and inflation projections (see Chart 1).<sup>1</sup>

Some sources of risk are discernible in this setting. These risks mean that potential upward or downward deviations from the central scenario do not appear as equally likely. Thus, although

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1. The annex at the end of this report gives some technical details on how this chart was prepared.



SOURCES: Instituto Nacional de Estadística and Banco de España.

a. The chart shows the uncertainty surrounding the central projection. The intervals have probabilities of 20%, 40%, 60%, 80% and 90%, respectively, based on past forecasting errors.

Latest data: 2007 Q4.

the projection considers a less buoyant international scenario than in recent years, it cannot be ruled out that the weakness of certain economies (particularly the United States) will be greater than expected or that the contagion of this loss of momentum to other areas will be more intense. The implications of the financial turbulence may also be more marked than projected. These factors, which might also exacerbate the adjustment of residential investment in Spain, suggest that the risks surrounding the output growth projections are on the low side. This means that downward deviations from the growth path of the central scenario of this report are considered more likely than upward ones. In the case of inflation, the risks are predominantly on the upside, particularly in 2009, since it is possible that the strains in the oil and commodities markets may persist and pass through to labour costs and to domestic prices.

The section following this summary explicitly sets out the external assumptions underlying the projections given in this report. Section 3 makes a detailed diagnosis of the outlook for the Spanish economy, and the final section analyses the main risks to the central scenario described.

### ***External assumptions underlying the projections***

The projections prepared by the Banco de España are based on a set of assumptions about the path of the main exogenous conditioning factors of the Spanish economy's activity, price and cost variables.

Exchange-rate, interest-rate and oil-price projections are based on the respective markets as at the time immediately before the projections were prepared.<sup>2</sup> It is assumed that the

2. To avoid distortions from volatility on any specific day, average values from a reference period prior to the cut-off date for information were adopted (namely, the two preceding weeks). The calculation of these external assumptions is in line with the procedures usually applied in Eurosystem projection exercises.

Annual rates of change, unless otherwise indicated

					Projection		Difference from projection released on 30 March 2007 (**)	
					2008	2009	2007	2008
2004					2005	2006	2007	
International environment								
World output	5.3	5.3	5.5	5.2	4.2	4.3	0.2	-0.8
Global markets	10.8	7.9	8.9	6.0	5.3	6.3	-1.3	-2.0
Spain's export markets (a)	8.2	6.1	8.1	5.4	4.5	5.3	-1.1	-1.9
Oil price in dollars (amount)	38.3	54.4	65.4	72.7	96.1	95.6	15.8	36.4
Competitors' export prices in euro (b)	-0.5	3.6	3.0	0.5	0.0	1.7	0.0	-1.5
Monetary and financial conditions								
Dollar/euro exchange rate (amount)	1.24	1.24	1.26	1.37	1.48	1.48	0.07	0.18
Short-term interest rates (3-month Euribor)	2.1	2.2	3.1	4.3	4.3	3.7	0.4	0.4
Long-term interest rate (10-year bond yield)	4.1	3.4	3.8	4.3	4.3	4.5	0.5	0.5

SOURCES: Banco de España and ECB.

(\*) Projection cut-off date: 7.3.2008

(\*\*) A plus (minus) sign means that the current projection is higher (lower) than that released in March 2007.

a. Weighted according to their share in Spain's exports.

b. Weighted according to their share in Spain's exports, adjusted for the effect of third markets.

euro exchange rate will remain constant at its current value on the spot market in the reference period. In terms of the bilateral euro/dollar exchange rate, this means that the average value of the euro will appreciate by 8% in comparison with the average for 2007 (see Table 1). Compared with the March 2007 projection,<sup>3</sup> the current assumption for this variable entails a considerable appreciation of the euro in 2008. The short-term interest rate path (measured by the three-month EURIBOR) is obtained from the expectations implicit in money market curves, which show a declining profile. On this information, the short-term interest rate is expected to average 4.3% in 2008 (an upward revision of 0.4 pp in comparison with the previous projection) and 3.7% in 2009. The long-term interest rate path, which is approximated through market expectations about ten-year public debt yields, is quite stable: 4.3% in 2008 and 4.5% in 2009. Oil prices are expected to rise to US\$96 over the course of 2008 and 2009, according to futures markets' expectations for this commodity in the reference period, making for a rise of 32% with respect to 2007, although the appreciation of the euro partially limits the impact of dearer oil prices. The slowdown in recent years in housing prices is expected to continue, with growth rates in real terms turning negative in 2008 and 2009.

As for the international environment, future developments in euro area foreign trade variables match those included in the macroeconomic projections prepared by ECB experts and presented in the ECB Monthly Bulletin for March 2008. The world economy is expected to slow down in 2008, mainly reflecting the weakness in the United States which will pass through to other areas, in particular the euro area. This will result in less buoyant export markets for Spain, which are projected to grow by 4.5% in 2008, almost 2 pp less than anticipated in March 2007. Foreign markets are expected to recover in 2009, with growth rates similar to those seen in 2007. In spite of higher oil and other non-energy commodity prices, export prices on

3. Throughout this report the current projections are compared with those in the projections report released on the Banco de España website on 30 March 2007.

international markets in euro are projected to stabilise in 2008 as a result of the appreciation of the euro and will increase by 1.7% in 2009.

Finally, it should be stressed that the effects of possible budgetary measures which may be adopted in future in Spain have not been considered in these projections; only the effects of those measures already approved are taken into account.

### ***Outlook for the Spanish economy***

GDP growth stood at 3.8% in 2007, 0.2 pp higher than projected in the March 2007 report, basically as a result of the improved performance of the external sector, in particular due to less buoyant imports (see Table 2). Indeed, in 2007 the rebalancing of the respective contributions of national demand and of net exports continued, a process which had clearly begun in 2006. Thus, the net external balance trimmed growth by 0.7 pp in 2007, 0.5 pp less than in the previous year, which was the outcome of the less expansive performance of imports and the fact that exports grew at a slightly higher rate than in 2006 (see Chart 2).

The contribution of national demand to the growth rate of output in 2007 decreased by 0.5 pp in comparison with 2006. The mildly declining pattern in the rate of expansion of household consumption, already clear in the closing months of 2006, continued in 2007, although its rate of increase remained relatively high as a result of buoyant employment. Nevertheless, this growth was 0.3 pp lower than projected in March 2007. Gross fixed capital formation also slowed slightly, by rather more than was projected last spring. This was due to the highly differentiated performance of its two main components: investment in capital goods was robust and better than expected whereas investment in construction, which was projected to post a rate of increase similar to that of 6% recorded in 2006, clearly slowed.

In 2008 a more pronounced slowdown in the rate of output growth is expected, owing to the greater loss of momentum in national demand which is projected to be only partially offset by the improvement in the contribution of the net external balance. GDP is expected to grow by 2.4% in 2008, 0.7 pp less than the projection made one year ago. The reasons for the downward revision in the growth figure centre on a less favourable international environment in 2008, with lower growth in export markets, higher commodity prices and a more pronounced adjustment in housing in Spain. This began as early as 2006 in response to the gradual tightening of monetary policy since 2005 and less favourable expectations of a rise in property prices. However, in recent quarters this process has intensified, due partly to the financial instability on markets since summer 2007 (see Chart 3). It is projected that the loss of steam in the property sector will mean less dynamic job creation and that the stimulus from the increase in wealth which has been driving growth in household spending in recent years will disappear.

Private consumption is projected to slow to a rate of 2.3% in 2008 as a consequence of the smaller rise in gross disposable income and in household real and financial wealth. Disposable income measured in real terms will decelerate in 2008 due to moderating job creation, although lower tax revenue and high wage increases will help cushion this loss of dynamism. Capital goods investment, while still showing some vigour in 2008, is also expected to moderate in step with the less expansionary tone of foreign markets and of national demand. In 2008 exports will foreseeably slow due both to the lower growth of foreign markets and to the appreciation of the euro; however, the positive impact on activity of the slowdown in imports (due to less vigorous final demand) will hold greater sway, and this will enable the net contribution of the external sector to continue improving.

Annual rates of change, unless otherwise indicated

	2004	2005	2006	2007	Projection		Difference from projection released on 30 March 2007 (**)	
					2008	2009	2007	2008
GDP	3.3	3.6	3.9	3.8	2.4	2.1	0.2	-0.7
Private consumption	4.2	4.2	3.8	3.2	2.3	1.9	-0.3	-0.7
Government consumption	6.3	5.5	4.8	5.1	4.8	4.4	1.0	1.0
Gross capital formation	5.2	6.5	7.0	6.0	1.5	0.4	-0.2	-2.2
<i>Investment in capital goods</i>	5.1	9.2	10.4	11.6	4.4	2.6	2.6	-2.1
<i>Investment in construction</i>	5.4	6.1	6.0	4.0	-0.2	-1.2	-1.9	-3.0
Exports of goods and services	4.2	2.6	5.1	5.3	4.0	4.5	0.0	-1.4
Imports of goods and services	9.6	7.7	8.3	6.6	4.1	3.4	-0.6	-1.9
National demand (contribution to growth)	4.9	5.3	5.1	4.6	2.7	2.0	0.0	-0.9
Net external demand (contribution to growth)	-1.7	-1.6	-1.2	-0.7	-0.3	0.0	0.2	0.2
Private consumption deflator	3.6	3.4	3.4	2.8	3.6	2.3	0.6	0.9
Unit labour costs	2.4	2.5	2.3	2.7	3.4	2.5	0.0	0.8
Compensation per employee	3.0	2.9	3.0	3.6	4.3	3.5	0.2	1.1
Apparent labour productivity	0.6	0.4	0.7	0.8	0.9	1.0	0.2	0.2
Employment (equivalent jobs)	2.7	3.2	3.2	3.0	1.5	1.1	0.0	-0.9
Unemployment rate (% of labour force)	10.6	9.2	8.5	8.3	9.0	9.8	0.1	0.9
Household savings rate and NPISHs	11.3	11.0	10.5	10.5	10.8	11.4	0.4	0.6
Nation's net lending (+) / net borrowing (-) (% of GDP)	-4.8	-6.5	-8.1	-9.5	-10.0	-10.0	-0.8	-0.6
General government net lending (+) / net borrowing (-) (% of GDP)	-0.3	1.0	1.8	2.2	1.2	0.2	1.0	0.2

SOURCES: Banco de España and Instituto Nacional de Estadística (INE).

(\*) Projection cut-off date: 7.3.2008.

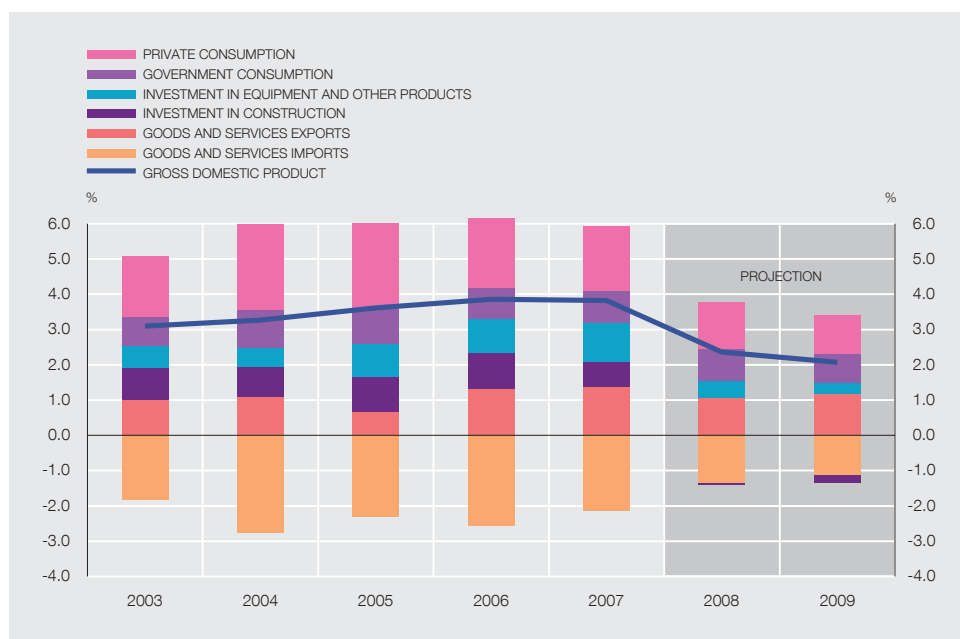
(\*\*) A plus (minus) sign means that the current projection is higher (lower) than the projection released in 2007.

Latest data released by INE: 2007 Q4.

The slowdown in GDP is expected to continue in 2009, albeit more moderately, leaving overall growth for the year at 2.1%. Again, this projection is based on a slowdown in all components of national demand, albeit a more moderate one than in 2008. Also, in 2009 public investment will significantly boost construction figures following the more modest growth of the previous year, linked to the habitual electoral cycle. In 2009 the external sector's contribution to growth will continue to improve thanks to greater export buoyancy underpinned by the recovery of international markets and to slower imports, which will continue to reflect the weaker pace of final demand.

It is estimated that the size of the expected slowdown in the rate of job creation will be slightly greater than that projected for output. Hence the overall productivity of the economy is projected to recover from 0.8% in 2007 to 0.9% in 2008 and 1% in 2009. Also, it is expected that the growth rate of compensation per employee for the total economy will rise significantly in 2008, mainly as a result of the impact of indexation clauses, owing to the higher inflation rate in late 2007. Wage increases will foreseeably decelerate in 2009, although still holding at a relatively high rate (3.5%) not entirely consistent with the slower expansion of economic activity.

As regards inflation, developments in the rate of change of the private consumption deflator are being driven by the recent increase in energy prices and by price rises in certain processed foods. This higher inflationary pressure will give way in the coming months to a gradual decline in the inflation rate. That said, the private consumption deflator for 2008 as a whole will be



SOURCES: Instituto Nacional de Estadística and Banco de España.

a. Latest data: 2007 Q4.

high, at around 3.6%, although at the end of the year inflation will probably stand below 3%. For 2009, in the absence of fresh pressure in the oil and food commodity markets, the private consumption deflator is expected to ease substantially to 2.3%, partly due to the disappearance of the base effects that have dominated recent developments and also because of the lower inflationary pressure generated by weaker spending.

This central scenario of slowing growth leads to the lessening of some imbalances in the Spanish economy. In this respect, it is projected that the nation's net borrowing will continue to rise in 2008, to 10% of GDP, but will stabilise at this proportion in 2009. Although the financing of the external deficit does not pose any difficulties in the euro area, the high dependence on saving from the rest of the world may prove a risk at times of instability in the international financial markets, like those seen since last August, as the markets through which Spanish credit institutions have customarily channeled external saving have been strongly affected by the financial turbulence. Nonetheless, the trend towards gradual moderation in corporate, and particularly household, investment will foreseeably enable the external imbalance to be reduced.

In the case of households, the last few quarters have seen a clear moderation in their recourse to financing, as a result of the interest rate increases by the ECB since late 2005 and the rise in money market interest rates derived from the financial turbulence first seen last summer. The increasing financial burden on households is playing a part in dampening consumption and will foreseeably propel a recovery in the household saving rate from 2008, following the continual falls of recent years. All this would lead to a smooth adjustment towards more moderate and sustainable rates of spending and indebtedness. Along these same lines is the gradual but continuous deceleration of house prices now under way and the decline in stock market prices, which will reduce the scale of the wealth effect on consumption. The recourse by non-financial corporations to borrowing has also eased off, particularly in the case of firms related to the construction and property development sector. Lending to

## BREAKDOWN OF INVESTMENT

### Rates of change in real terms

CHART 3



SOURCES: Instituto Nacional de Estadística and Banco de España.

a. Latest data: 2007 Q4.

manufacturing and services firms has, however, continued to grow at a notable pace, reflecting their ongoing favourable medium-term expectations, despite the downward revision of world and national economic projections.

A general government surplus of 2.2% of GDP was posted at end-2007. This was substantially higher than initially projected, thanks to high tax receipts, particularly of direct taxes. However, the favourable trend of tax revenue in recent years also has a transitory component as associated with the strong growth of corporate profits and with property market developments. However, in 2007 a decline was already becoming apparent in certain previously buoyant tax receipts, such as those of transfer tax. This decline could become steeper in 2008 and 2009 as property market activity slows. Moreover, the loss of dynamism in employment and in private consumption will lead to more modest tax growth. Also, the projected increase in the unemployment rate will mean higher unemployment benefit payments, making for higher public expenditure. As a result of all this, it is projected that 2008 will see the general government surplus decrease to 1.2% of GDP and that this decline will continue in 2009, when the surplus will virtually disappear (0.2% of GDP). Fiscal impulse indicators (designed to characterise the budget policy situation in relation to the cyclical position of the economy) point to an expansionary stance in both 2008 and 2009.

### ***Risks to the projections***

The projections presented in this report imply a slowdown in GDP in 2008 and 2009 based on less dynamic national demand, cushioned by an improvement in the contribution of external demand to economic growth. The tightening in monetary policy since end-2005 and the onset of the adjustment in the residential sector caused national demand to slow in 2007. The tighter financial conditions following the shocks seen in the international financial markets since summer 2007 and a phase of sharper real estate market adjustment will mean a more significant slowdown in activity in 2008. It is expected that the external sector will, mainly because of the slowdown in imports, soften the negative impact of national demand on GDP.

As noted in Section 1, whether these projections actually materialise is subject to notable uncertainty, especially in the current circumstances. In the case of activity, the risks per-



ceived are mainly on the downside. In the external sphere, world economic activity (in both the industrialised and emerging countries) may be affected by the international financial instability more than anticipated at present. In addition, if the difficulties of credit institutions seeking funds at reasonable prices on the international markets persist, it cannot be ruled out that financial conditions (interest rates or conditions of access to credit) may become more stringent for the financing of household and corporate spending in Spain. This could in turn make the adjustment under way in the real estate sector more pronounced.

With regard to inflation, the short- and medium-term projections depend closely on the behaviour of the oil and agricultural commodity markets. It is difficult to discern whether these markets will remain on their upward trend or whether, on the contrary, the diminished dynamism of the world economy will rein in the growth rates of prices of these commodities in the future. In any event, the presence of indexation clauses in wage agreements in Spain means that past price increases feed through to compensation per employee and put upward pressure on future inflation, generating a certain persistence in the inflation dynamic. Moreover, the reduction in demand-side pressure associated with the projected slowdown in private consumption (and, in general, in national demand) over the forecasting horizon may help ease underlying inflationary pressures. On the whole, these factors mean it is considered more likely that the possible deviations of inflation from the central scenario will be upward, particularly in 2009.

26.3.2008.

## **ANNEX**

### ***Uncertainty associated with the projections***

As indicated in the main body of the text, macroeconomic projections are inherently uncertain. Firstly, projected variables generally have numerous determinants, with which they have an often complex and only partially known relationship. Secondly, projections rest on various assumptions about the behaviour of certain exogenous variables that may not hold in practice. Finally, economic variables are affected by shocks that are completely unpredictable.

Two significant features of the projections prepared by the DG Economics, Statistics and Research of the Banco de España - which bear on their uncertainty - are their conditional nature and the consideration of expert information. They are conditional projections as they are made under the set of technical assumptions described in Section 2 of this report. Further, the results arising from econometric models are complemented by the additional information provided by different experts. This means that uncertainty must be quantified on the basis of the out-of-sample forecasting errors of projection exercises performed in the past.

Among the potential options for communicating the uncertainty associated with the projections, the presentation of their density function has been chosen, which makes for a more complete representation than if a single confidence interval were considered. This avoids the risk, which usually arises when projections are presented along with their intervals, of erroneously considering that all the points within the intervals are equally likely. Chart 1 shows, for each projection period, a set of five intervals around the central projection, with respective probabilities of 20%, 40%, 60%, 80% and 90%. Each of these intervals includes those associated with probabilities less than that considered. Thus, for example, the 90% interval is that lying between the lower and upper limits and encompasses those for the 20%, 40%,

60% and 80% probabilities. Note that the width of these intervals increases more than proportionally with their associated probability.

The underlying assumption is that the density function is normal, which means that the probability of lying above the central scenario equals the probability of lying below it. Usually, the standard deviation is used as a measure of the variability of past forecasting errors in the construction of the intervals. However, in this case, and to avoid an excessive impact of outlying past errors, it has been decided to use the median absolute deviation, which is a more robust measure than the standard deviation.<sup>4</sup>

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4. Alternative robust measures provide very similar results.