Methodology for the construction of Expected Real GDP growth forecasts

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The following note provides a step-by-step description of how to construct expected GDP growth forecasts and it corrects the results for a coding error that we discovered in our programs.

1 Livingston Survey

- We construct the series of semi-annual expected real GDP growth rates as the log-difference of expected nominal GDP growth rate and expected inflation. For consistency, we adopt this methodology also during the period for which the Livingston Survey directly reports real GDP growth forecasts.
- We compute:
  1. the annualized GDP growth forecast as the log-ratio between the series "GDP_X6M" and the series "GDP_XBP",
  2. the annualized inflation forecast as the log-ratio between the series "CPI_6M" and the series "CPI_BP",

  and multiply both series by $4/3$ to annualize the growth rates and by 100 to express them in percentage units.

- If an analyst does not report the expected CPI or GDP for one period we drop that analyst for that period.
- The sample that we use starts in December 1951 and ends in December 1998.

2 Blue Chips

- In June and December of each year we compute the expected growth rates of Real GDP in two alternative ways:

  1. the logarithm of 1 plus the one- and two-quarters ahead real GDP growth rates' forecasts divided by 200,
  2. the logarithm of 1 plus the current and the one- and two-quarters ahead real GDP growth rates' forecasts divided by 300,

  and multiply the resulting series by 100 to express them in percentage units.
- If an analyst does not provide all the needed forecasts to construct the above measures, we drop that analyst for that period for the corresponding measure.
- The baseline sample that we use starts in December 1984 and ends in June 2010. We also include the results for the case in which the Blue Chips' data is only used starting in 1998.[1]

3 Quartile measures

We denote:

1. $E[growth]$ as the cross-sectional median of analysts' forecasts at each point in time,

[1] We thank Amit Goyal for informing us of the difficulty in obtaining the individual quarterly forecasts for the period prior to 1998.

2. $V[growth]$ as the difference between the 75^{th} and 25^{th} percentile of the cross-section of analysts' forecasts,

3. $S[growth]$ as the sum between the 75^{th} and 25^{th} percentile minus twice the median of the distribution of analysts' forecasts divided by $V[growth]$.

4 Predictive regressions

The following table reports the estimated coefficients on median and third moment to the power of $1/3$ for several ways of constructing the expected GDP growth rates. The table updates all the relevant results in Table 2 of the paper, corrected for the coding error.

TABLE 1: Predictive Regressions

	[1]	[2]	[3]	[4]	[5]
$E[growth]$	-0.023	-0.024	-0.025	-0.024	-0.024
	(0.009)	(0.009)	(0.009)	(0.009)	(0.009)
$S[growth]^{1/3} \cdot V[growth]^{1/2}$	-0.026	-0.023	-0.022	-0.021	-0.020
	(0.009)	(0.009)	(0.009)	(0.009)	(0.009)

Notes - [1] same as in published version of the paper (see Table 2), [2] Blue Chips' forecasts computed using one- and two-quarters ahead forecast, [3] Blue Chips' forecats computed using current, one- and two-quarters ahead forecasts, [4] same as [2], but with Blue Chips' forecasts starting in 1998, [5] same as [3], but with Blue Chips' forecasts starting in 1998.