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Internet: lloyd.etheredge@yale.edu September 27, 2005

Mr. Robert Rubin Citigroup 399 Park Ave. - 3rd floor New York, NY <u>10022</u>

Dear Mr. Rubin:

Since about seven years ago, the performance of the 50+ leading macroeconomic forecasting models used by government and industry has been eroding. I enclose a copy of a letter from Robert Reischauer, former head of CBO and member of Harvard's Executive Committee, who agrees with the urgent need to rethink, expand, and modernize the basic data systems.

Reischauer's letter was written in December 2002 and later was widely circulated to senior government officials in the Executive Branch and Congress, and including NSF and academic leaders. Nothing happened. I enclose a copy of a communication of June 21, 2005 to Dr. Nina Federoff and the National Science Board noting that NSF's Committee of Visitors has now written increasingly angry and frustrated reports about the "crisis" for two years. They cannot get anything to happen either, and the signers were serious people and include former CEA Chairmen Janet Yellen and Glenn Hubbard.

Charles Perrow's <u>Normal Accidents</u> (updated edition: Princeton University Press, 1999), reviewed tragic accidents and system breakdowns, beginning with Three Mile Island. The pattern of findings extend to include Chernobyl, the shuttle disasters, and the intelligence failures before the current Iraq War; they seem likely to include the government failures concerning Hurricane Katrina and New Orleans. In each case, once a complex system began to lose its edge, its self-correction mechanisms began to fail. Looking back after the crisis, there was a pattern of written warnings, by well-informed, serious (and increasingly frustrated) people who were ignored, even when the warnings were addressed to senior government officials.

The problem of regaining reality-connected macroeconomic models and rethinking data systems appears to be the same type of problem. I think that someone with your ability and vision is going to have to provide sustained leadership and ideas.

- I also enclose a recent column by Robert Samuelson, "Time to Toss the Textbooks" (June 22, 2005), that adds another dimension. Alongside macroeconomic forecasting models, many specific correlations and established economic relationships are changing, for unknown reasons. The "everything is fine, it just takes longer" school is wrong. As Samuelson has written, if anything goes wrong and we want reality-grounded theory and effective policy, we may be in trouble.

One serious problem - beyond what the NSF advisory committee has discussed - may be that many leading economists, trained in the last generation paradigm, do not know what to recommend. I think that we need a high-level project that canvasses for fresh ideas about new data systems widely, here and in other industrialized countries, across disciplinary boundaries, and including substantial input from the private sector. We are going to need experimental data systems that allow new observations of advanced industrial economies and key sectors and a lot of creative ferment - we cannot do the job with a Commission that upgrades to a known solution. And - even starting now - it is going to take time and a sustained investment: once the initial set of (for example) the 20 best ideas for new observation/data systems are identified, they must be implemented by someone, and we may only get one new data point per three months until we also can upgrade the speed at which standard government economic data is collected. After we get the initial results, academic and private sector researchers are likely to make discoveries that lead to another round of ideas.

- I would be deeply grateful - if you are willing - if you would put in a good word with respected New York publications like the <u>Wall Street Journal</u>, the <u>Times</u>, and <u>Fortune</u>. The <u>Washington Post</u> has covered pieces of the story, but it will be very helpful to have other journalists also cover this kind of complex story, and to have informed support and ideas from a wider business and investment community.

With best regards,

(Dr.) Lloyd S. Etheredge, Director Government Learning Project 11/2/2005

TO: "Dr. David W. Lightfoot - Assistant Director - NSF/SBE" < dlightfo@nsf.gov >

FROM: Lloyd Etheredge < lloyd.etheredge@yale.edu>

SUBJECT: NSF & 67 Ways to Guess Gross Domestic Product

Cc: "Dr. Arden L. Bement - Director, National Science Foundation" <abenieur @nsf.gov>, "Dr.

Alan I. Leshner - National Science Board" <aleshner@aaas.org>,"Dr. Elizabeth Hoffman - National Science Board" <elizabeth.hoffman@cusys.edu>,"Dr. Droegemeier - National

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## Dear Dr. Lightfoot:

In evaluating NSF programs, you might be interested in John Kay's recent Op Ed piece in the <u>Financial Times</u>. Any impression at senior levels of NSF that Wall Street financial analysts and 67 Wall Street models independently confirm the assumptions, and the reliability/validity of the data systems, of current macro-economic models misperceives what they are doing.

Lloyd Etheredge

## Sixty-seven ways to guess Gross Domestic Product by John Kay

## [01 November 2005 Financial Times, p. 17]

The private value of predicting official statistics before their release is large but its social utility is zero, which is why procuring it is at once the best paid and most futile form of economic research.

At 8am last Friday, the Bloomberg financial information service carried 67 different predictions of US gross domestic product growth in the third quarter. The median was 3.6 per cent. At 8.30am, the Bureau of Economic Analysis issued its official estimate of 3.8 per cent. This modest difference was well received by the market: the Dow Jones index rose immediately by 50 points and was up 170 points – almost 2 per cent – on the day.

As the figure was announced there were cheers in some dealing rooms, commiserations in others. Wall Street economists who get these numbers right earn large bonuses: those who miss the mark soon miss their salary cheques as well.

Although these 67 figures are described as estimates of GDP growth, none of the 67 houses had really made an independent assessment of trends in American national income. The figures compiled by the BEA are based on extensive data collection using the legal powers, moral authority and financial resources of the US government under assurances of confidentiality. Such an exercise could not easily be replicated by any research firm or investment bank and is not.

Moreover, if anyone did try to measure GDP independently of the federal government, it is likely that they would come up with a substantially different answer. The official statistics are based on samples, cover only a fraction of economic activity and are open to considerable revision. The BEA's own assessment is that this figure will be revised by up to 1-2 per cent on two-thirds of occasions. It is therefore more likely than not that the number – itself still an estimate – will be outside the range of between 3 per cent and 4 per cent which included almost all analysts' judgments and the BEA's own provisional figure. If an infinitely knowledgeable analyst actually established the correct answer, his prediction would probably be off the chart: not just in this quarter, but every quarter. He would soon lose

his job.

How is it that all estimates are so close together when the underlying uncertainties are so large? The 67 teams of analysts are not trying to guess what actually happened to American national income in the third quarter. The traders who use their figures do not want an estimate of what is really going on: they want an estimate of what the BEA will announce. And so the economists who service them are trying to guess the number in the press release. Their main source is other statistics that the BEA has already issued. That is why their judgments, although not necessarily right about the economy, are close to the actual BEA figure. Their analysis is also influenced by the numbers posted by the other 66 analysts. It is dangerous to be right, but safe to be conventional.

The lazy equity analyst focuses on trying to anticipate quarterly earnings announcements, forming a symbiotic relationship with company finance officers and investor relations people who are trying to massage market expectations. A better observer can sometimes add value by penetrating corporate public relations and obtaining his or her own information.

But the BEA is trying to find the truth and is better placed to do so than any Wall Street economist. The bureau is not concerned to please the market and, unlike companies, is serious about confidentiality. Financial economists might as well be lazy since they have little to add to the work of the bureau. Correctly predicting the official estimate 30 minutes before its release may be profitable but contributes nothing to our understanding of the economy. The private value of such information is large but its social utility is zero, which is why procuring it is at once the best-paid and most futile form of economic research.

Keynes likened professional investment to a beauty contest, in which "it is not a case of choosing those which are really the prettiest, nor even those which average opinion genuinely thinks the prettiest. We have reached the third degree where we devote our intelligence to anticipating what average opinion expects the average opinion to be". And it is so, to the power of 67.

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