The IEA WEO 2008 - Objectivity of the International Energy Agency

Posted by Gail the Actuary on November 19, 2008 - 11:49am
Topic: Policy/Politics
Tags: iea, original, weo 2008 [list all tags]

Who is the International Energy Agency? According to its website:

> The International Energy Agency (IEA) acts as energy policy advisor to 28 member countries in their effort to ensure reliable, affordable and clean energy for their citizens. Founded during the oil crisis of 1973-74, the IEA's initial role was to co-ordinate measures in times of oil supply emergencies. As energy markets have changed, so has the IEA. Its mandate has broadened to incorporate the "Three E's" of balanced energy policy making: energy security, economic development and environmental protection. Current work focuses on climate change policies, market reform, energy technology collaboration and outreach to the rest of the world, especially major consumers and producers of energy like China, India, Russia and the OPEC countries.

With a staff of around 190, mainly energy experts and statisticians from its 28 member countries, the IEA conducts a broad programme of energy research, data compilation, publications and public dissemination of the latest energy policy analysis and recommendations on good practices.

If the IEA acts as policy advisor, it is clearly involved in many matters of political importance. One question a person might ask is whether the IEA is able to separate its political role from its data analysis role. Is there an energy policy Chinese Wall? Also, there are many other tugs on anyone who provides forecasts to others (consistency with past forecasts, explainable changes due to outside causes, forecasts in line with what the clients want).

Given these issues, one might ask whether the IEA can really be expected to be objective. Is there any auditor looking over the IEA's shoulder? Is there any other outside independent agency looking out for the accuracy of the forecasts?

OECD and IEA

The Organisation for Economic Co-operation and Development (OECD) is an organization of 30 countries, based in Paris, that was formed in 1961. It is a large organization, with 2,500 employees. The 30 countries in the OECD are counties which are economically developed, and thus have the highest per-capita use of petroleum products. The OECD might be thought of as the "organization of petroleum importing countries".

According to a slide show from its web site, its missions are

• Support economic growth

• Boost employment

• Raise living standards

• Maintain financial stability

• Assist other countries' economic development

According to the same slide show, it is

• Committed to democracy and the market economy

• Provides economic and social data

• Analyzes and forecasts economic development

The IEA is a (supposedly) independent agency of the OECD. The countries making up the IEA seem to be slightly different from those of the OECD, but this could just be a matter of different dates--membership changes a bit from year to year. The IEA makes a point of its independence, while the OECD considers the IEA to be one of the ways it achieves its objectives, so one might suspect there is some internal tug of war.

The IEA is much smaller than the OECD, with only 190 employees. This seems to be up considerably from the recent past, when it only had 160 employees.

The IEA and OECD are both located in Paris, and seem to have some co-ordinated activities. For example, this job vacancies list is for both the IEA and OECD. Also, the copyright on the new IEA World Energy Outlook 2008 is "OECD/IEA".

IEA's Original Objectives

When the IEA was originally formed in 1974, countries using oil were dealing with a cut-back in oil supplies, as the result of an OPEC oil embargo. In its original charter, the purposes of the group were

(i) development of a common level of emergency self-sufficiency in oil supplies;

(ii) establishment of common demand restraint measures in an emergency;

(iii) establishment and implementation of measures for the allocation of available oil in time of emergency;

(iv) development of a system of information on the international oil market and a framework for consultation with international oil companies;

(v) development and implementation of a long-term co-operation programme to reduce dependence on imported oil, including: conservation of energy, development of alternative sources of energy, energy research and development, and supply of natural and enriched uranium;

(vi) promotion of co-operative relations with oil producing countries and with other oil consuming countries, particularly those of the developing world.

These goals were fairly limited, so there was little chance of conflict between data gathering and policy setting. Over the years, the goals have broadened, adding much more of a chance for conflict.

By 1979, these goals had changed, and the number one goal was reducing oil usage:

(i) co-operation among IEA participating countries to reduce excessive dependence on oil through energy conservation, development of alternative energy sources, and energy research and development.

One area where the IEA objectives have grown is in response to climate change concerns. The IEA now plays a leading role in attempting to reduce CO2 emissions. According to its web site, the IEA has formulated a plan for reducing global CO2 emissions by 8.2 gigatonnes by 2030. As part of its climate change efforts, the IEA has initiatives in the following areas: alternative energy; energy efficiency in buildings, appliances, transport and industry; cleaner fossil fuels; carbon capture and storage; renewable energy; and enhanced international co-operation.

IEA objectives have also grown in recognition of the fact that the world has changed since the time when the IEA was formed in 1974. When the IEA was founded, OECD countries accounted for nearly all of the oil demand. In recent years, China, India, and many other lesser developed countries have increased their oil use. These changes have altered the focus of the IEA toward more of a world-wide view. With more of a world-wide focus, the IEA has shifted toward more of a general growth objective, similar to the growth objective of the OECD organization.

The IEA's Current Objectives

Based on an Overview Presentation on its website, the current objectives of the IEA are

• Energy Security

• Environmental Protection

• Economic Growth

• Engagement Worldwide

Readers of this website know that *economic growth* and a long-term declining resource base are inherently in conflict, because it is not possible to have economic growth without sufficient energy resources. This has the potential to create conflict within the agency - cognitive dissonance written large. One can surmise that when *economic growth* was first added as an objective, no conflict was apparent, because there seemed to be plenty of oil for everyone and new energy sources (natural gas, nuclear, and other resources on the horizon). Now that resources are tighter, this fundamental conflict is starting to be manifest.

Environmental protection is now a major area of IEA's operations, but a review of the web site would suggest that the issues of concern are almost exclusively issues related to CO2 and climate change. Issues such as the shortages of fresh water and pollution do not appear to be a significant part of environmental protection.

Forecasts of future CO2 levels and future temperature levels are, in effect, an evaluation of whether IEA's decision to focus on CO2 levels and global warming was the correct one. While this may not bias IEA's thinking, many organizations in this position would tend to prepare reports that paint an unnecessarily gloomy picture of likely future global warming, thus validating their prior decision to focus on this problem.

Even *engagement worldwide* makes the IEA more vulnerable to conflict that when it began in 1974. When the IEA was just co-ordinating response to inadequate oil supply, the issues it dealt with were fairly limited. Now that there are many more users of its reports, including many non-OECD countries around the world, the IEA can come under pressure to make forecasts come out in the way these users would like to see them. Also, data quality related to these new users is likely less good.

Key areas of activity are listed as

• Emergency Preparedness

• Oil Markets

• Gas Markets

• Policy Analysis and Co-operation

• World Energy Outlook

• Global Energy Dialogue

• Energy Technology

• Energy Technology Network

• Energy Efficiency

• Energy and Environment

• Energy Statistics

Here again, we have potential for conflicts. Now that data is required from around the world, the IEA must obtain data from a wide variety of sources. It is nearly impossible to question the accuracy of information provided in good faith. As oil-producing companies and countries are pressured to "look good", there is increasing possibility of data of dubious quality being submitted. The IEA can do its best on quality control, but it is not clear that even these efforts will prove successful, whether with 190 employees, or 1,900.

The IEA has discretion in choosing who else to obtain data from. Besides data from individual countries, the IEA seems to put a great deal of reliance on data from IHS. The company IHS owns Cambridge Energy Research Associates (CERA), an organization that consuls for energy companies. CERA is known for its forecasts showing oil production continuing for many years without decline. IHS may be the best source of data available, but is it, in turn truly unbiased?

Because of the way the objectives of the IEA have been established, the same organization collects data, analyzes it, and makes policy. This combination of objectives sets the situation up for conflict. Furthermore, once a policy has been set, it might be difficult for the IEA (or any other

organization with conflicting goals) to produce a forecast that indicates that the previous policy decisions were wrong.

If previous forecasts were wrong, or need to be changed, it is convenient to have some outside event that the changed forecasts can be blamed on. Global warming fits conveniently here. So does lack of investment by countries outside the OECD.

IEA Governance

The IEA and OECD seem to be set up in the same way, with three types of oversight:

• Council - Elected committee overseeing whole operation

• Committees - Large number of committees, set up for discussion and implementation

• Secretariat - In charge of analyses and proposals

It seems like it would be difficult to get much accomplished in such an arrangement, with so many bosses to please.

Who Pays? Who has the most votes?

I didn't find current budgets and voting arrangements on the website, but I found information from 2003. When measures need to be voted on at the IEA, this is the weighting of votes:

1. Unanimity shall require all of the votes of the Participating Countries present and voting. Countries abstaining shall be considered as not voting.

2. When majority or special majority is required, the Participating Countries shall have the following voting weights:

	General Voting Weights	Oil Consumption Voting Weights	Combined Voting Weights
Australia	3	1	4
Austria	3	1	4
Belgium	3	1	4
Canada	3	4	7
Czech Republic	3	1	4
Denmark	3	1	4
Finland	3	1	4
France	3	6	9
Germany	3	8	11
Greece	3	0	3
Hungary	3	1	4
Ireland	3	0	3
Italy	3	5	8
Japan	3	14	17
Korea (Republic of)	3	1	4
Luxembourg	3	0	3
The Netherlands	3	1	4
New Zealand	3	0	3
Portugal	3	0	3
Spain	3	2	5
Sweden	3	2	5
Switzerland	3	1	4
Turkey	3	1	4
United Kingdom	3	5	8
United States	3	43	46
Totals	**75**	**100**	**175**

3. Majority shall require 60 per cent of the total combined voting weights and 50 per cent of the general voting weights cast.

Clearly the US has the biggest share of the votes (about 26%), and Japan is second. All of the other countries are much smaller.

Regarding who pays, the 2003 allocation of assessments was as follows:

The IEA's 2003 scale of contributions was as follows [IEA/GB/C(2003)3, Item 11(c)]:

Country	Scale of Contibution
Australia	1.804
Austria	0.963
Belgium	1.211
Canada	3.306
Czech Republic	0.248
Denmark	0.777
Finland	0.606
France	6.634
Germany	9.841
Greece	0.567
Hungary	0.188
Ireland	0.415
Italy	5.386
Japan	24.040
Korea	2.008
Luxembourg	0.100
The Netherlands	1.951
New Zealand	0.241
Norway	0.815
Portugal	0.515
Spain	2.881
Sweden	1.126
Switzerland	1.511
Turkey	0.734
United Kingdom	7.157
United States	24.975
Total	**100.00%**

The US plus Japan pay 49% of the assessments, so one would suspect that if there is anything that the two of those countries object to, there could be some leverage brought to bear on the agency.

Funding

Getting adequate funding for the agency has been a problem over the years. Funding in real currency was flat for the entire period 1994 to 2003, meaning that the amount of services funded during this period declined. (This was true for the US EIA in the same time period. It was easy to get funding when there was a crisis back in the 1970s, but once the crisis went away, funding was left at a constant dollar amount.)

This exhibit shows a history of assessments for the 1994 to 2003 period:

International Energy Agency - Total Budget Level, 1994-2003
(in millions of euros)

Year	Assessed Contribution	Publications Estimate	"Core" Appropriation	Publications Surplus Carried Forward	Total Resources
1994	20.06	0.81	20.82	0.00	20.82
1995	20.44	0.91	21.36	0.23	21.59
1996	19.53	0.91	20.44	0.29	20.73
1997	18.96	0.91	19.88	0.63	20.50
1998	18.37	0.91	19.28	0.96	20.25[1]
1999	17.49	0.91	18.40	0.79	19.19[2]
2000	17.52	1.68	19.19	0.30	19.50
2001	18.39	1.42	19.71	0.00	19.80
2002	19.02	1.28	20.30	0.71	21.01[3]
2003	18.96	1.71	20.66	1.26	21.92[4]
2004	18.85	2.22	21.07	0.70	21.77

In order to make up for the deficient funding, some countries offered voluntary contributions. These grew over the time period in question. To the extent that the agency became dependent on these voluntary contributions, one might think that the countries making these contributions (whoever they were) might have been able to exert leverage with respect to issues of interest to those countries.

International Energy Agency Voluntary Contributions Received, 1994-2003 According to the OECD's Official Records
(in millions of euros)

Year	Voluntary Contributions Received	Total Resources Inclusive of Voluntary Contributions	% of Total Resources
1994	.36	21.18	1.71 %
1995	.11	21.70	.51 %
1996	.58	21.31	2.74 %
1997	.63	21.13	3.01 %
1998	.89	21.14[5]	4.24 %
1999	1.51	20.70[6]	7.30 %
2000	2.52	22.02	11.45 %
2001	2.35	22.06	10.61 %
2002	2.29	23.30[7]	9.85 %
2003	1.74	23.66[8]	7.35 %

Funding for the IEA has probably increased somewhat since 2003, because the number of employees of the agency seems to have increased from 160 to 190. There has also been an increased emphasis on climate change. It is possible that the additional employees and costs related to the beefed up climate change aspects of the IEA.

Audits and Oversight

When I looked through the history document from which I took the budget and other exhibits, I could only find a few mentions of audits. Basically, there is an audit of funds spent, to see that they are spent for the intended purposes. In 1995, the OECD did an operational audit of the IEA, looking at the operations in detail. The fact that it could do such an audit would suggest that it has oversight over the IEA. The only other mentions of audits are in terms of those providing voluntary funding not being able to audit what the IEA is doing with their funds.

Who Is Depending On and Reviewing IEA's Numbers?

Clearly, all of the 28 countries belonging to the IEA are depending on the IEA's forecasts. Since its focus is worldwide, many of the lesser-developed countries are looking at these forecasts as well. In addition, the OECD is using the IEA's forecasts in its policy making, and the IEA is using its forecasts in its policy making.

Many of the bigger countries have their own data and forecasting arms. The US EIA is well known to most of us. Japan has the Institute of Energy Economics, which most of us are less familiar with.

The US EIA has in the past published high estimates of future oil production. One would think that this would put pressure on the IEA to be consistent with what the EIA is forecasting, especially since the US is a major contributor to IEA funding. The fact that the IEA has been willing to step out and make statements regarding oil depletion being an issue, when EIA has not be willing to make a similar statement, shows that the IEA is making a courageous (and more risky) effort to be objective, even if one might argue with the precise selection of the forecasted amounts.

Regarding who is reviewing the forecasts of the IEA for reasonableness, it is very difficult for anyone to review energy forecasts, so it is not clear if the OECD, or any other organization, could audit IEA's forecasts for accuracy if they wanted to. Data is often not very reliable. Many oil producers who could provide data are unwilling to disclose accurate estimates. The issue is also very complex, and because of this, there aren't many with sufficient technical expertise to review the accuracy of the forecasts if they chose to. But the data and conclusions presented by the IEA is much more important to the world's social system than quarterly reports by the likes of Microsoft, Caterpillar, and Exxon (and Enron), yet data and statements by these public companies must undergo scrutiny by outside auditors. Is IEA information either above the law, or not important enough to warrant outside scrutiny? At this point, The Oil Drum and a few members of various Association for the Study of Peak Oil (ASPO) organizations seem to be the only ones reviewing IEA's analysis in detail.

Conclusions

Given the current structure and objectives of the IEA, it seems like it would be very difficult for the IEA to be 100% objective, especially in making forecasts where there is a high degree of uncertainty. The objectives of IEA, and of its more-or-less parent OECD, are not consistent with declining energy availability, and declining growth. So in this context, Mssrs. Tanaka and Birol face considerable challenges.

The voting and funding structure are heavily weighted to the US and Japan. If either of them object to a particular view, it would seem more than possible to have this view not approved, or at

least watered down. Also, with the complex governance structure, it would seem as though getting anything passed which potentially is in conflict with the views of some of the member nations would be an issue.

Consistency with past reports is something that any forecasting agency would consider important. This, by itself, will tend to inhibit big changes in forecasts. When one couples this issue with other issues of importance--such as the perceived need to maintain growth, and a concern about not causing panic, there would seem to be considerable pressure to keep forecasts as close to those in the past as possible. We would note, however, that the IEA has taken steps to indicate that there is a problem, even when other agencies have sidestepped this issue. In fact, the headline projections from this report are indeed a large departure from the recent past.

There really aren't other organizations, (other than previously mentioned), that are looking at the IEA report from a point of reasonableness of the forecasts compared to the indications of the underlying data. What would be the incentive? The Energy Information Agency could at least in theory, undertake this role, but it has at least an equally bad track record in forecasting. Theoretically, newspapers could be doing this, but they lack the staff and expertise to manage the technical details. This leaves The Oil Drum and the ASPO organizations as the only "watch dogs" of the supposed "watch dog" agency.