The most adequate way of presenting actual data along with forecast data

Sixth Joint European Commission – OECD workshop on business and consumer opinion surveys, Brussels, 14 – 15 November 2013
Who Are We?

- Daphna Aviram-Nitzan
- Director of Economic Research Division at the Manufacturers' Association of Israel = MAI
- An Independent private organization.
- Self-Financed.
- Representing “The voice of Industry“
- Israel’s largest and most influential economic organization
MAI Tendency survey = Survey of Expectations in Industry

In order to professionally and reliably represent the Manufacturers’ economic trends, we conducted a tendency survey.

Carried out since 1978 Among a representative sample of more then 700 industrial companies.
MAI Tendency survey = Survey of Expectations in Industry

We named it “Survey of Expectations in Industry” because in our report we are focusing in analyzing the forecast observations.

The survey Exhibit:
actual trends during the last quarter
expected trends for the next quarter

It is a qualitative survey.
### A - General Information

Past tendencies in your firm in the last three months, comparing with the three months before them (regarding production activity)

<table>
<thead>
<tr>
<th>Mark the answer</th>
<th>Significant Decrease</th>
<th>Slight Decrease</th>
<th>No Change</th>
<th>Slight Increase</th>
<th>Significant Increase</th>
</tr>
</thead>
<tbody>
<tr>
<td>1. Production volume (quantitative)</td>
<td>1</td>
<td>2</td>
<td>3</td>
<td>4</td>
<td>5</td>
</tr>
<tr>
<td>2. Stock of finished goods (quantitative)</td>
<td>1</td>
<td>2</td>
<td>3</td>
<td>4</td>
<td>5</td>
</tr>
<tr>
<td>3. Stock of raw materials (quantitative)</td>
<td>1</td>
<td>2</td>
<td>3</td>
<td>4</td>
<td>5</td>
</tr>
<tr>
<td>4. Utilization rate of capital stock (machines &amp; equipment)</td>
<td>1</td>
<td>2</td>
<td>3</td>
<td>4</td>
<td>5</td>
</tr>
<tr>
<td>5. Financing expenditures (real)</td>
<td>1</td>
<td>2</td>
<td>3</td>
<td>4</td>
<td>5</td>
</tr>
<tr>
<td>6. Number of employees</td>
<td>1</td>
<td>2</td>
<td>3</td>
<td>4</td>
<td>5</td>
</tr>
<tr>
<td>7. Investment in machines &amp; equipment</td>
<td>1</td>
<td>2</td>
<td>3</td>
<td>4</td>
<td>5</td>
</tr>
<tr>
<td>8. Difficulties recruiting unprofessional workers</td>
<td>1</td>
<td>2</td>
<td>3</td>
<td>4</td>
<td>5</td>
</tr>
<tr>
<td>9. Difficulties recruiting professional workers</td>
<td>1</td>
<td>2</td>
<td>3</td>
<td>4</td>
<td>5</td>
</tr>
</tbody>
</table>
Survey of Expectations in Industry

Main parameters (actual & future tendency)

- Industrial output
- Sales to domestic market
- Industrial export shipments
- Order books (domestic market & export)
- Employed Persons
- Export Prices (foreign currency)
- Financing expenditures (real)
- Investments (Machinery & equipment)
- And more…. 
Observations

Trend line

Weighted Net Balance

Industrial Output, 2004 - 2013

The Manufacturers' Association of Israel
DILEMMA

Which why is The most adequate way of presenting forecast data
Two ways of presenting the forecasts

Export Shipments

Net Balance

option 1: Actual Reports + Forecast at the end

Q4/12: -5%
Q1/13: -8%
Q2/13: -5%
Q3/13(F): 4%

renewed growth

option 2: Only Forecasts

Q4/12: -8%
Q1/13: 0%
Q2/13: 5%
Q3/13: 4%

Slowdown

The Manufacturers' Association of Israel
Arguments For and Against

Forecast to Actual reports

- The same sampled industrialist is answering to the same Question at the same time/mood/state of mind

Forecast to Forecast

- Maybe the industrialists always tend to be more optimistic? In that case, maybe, we should compare forecast to forecast?
Export Shipments Forecast Compared to Actual Reports

A high & positive correlation coefficient of 0.85 between the Observation and the Forecast

Manufacturers' forecasts tend to be more optimistic during period of decline

Out of 39 Observations:
- in 26 quarters forecast reports were higher than actual data
- & only in 13 quarters the forecast was lower
Two ways of presenting the forecasts

Export Shipments

Net Balance

option 1: Actual Reports + Forecast at the end

-5%  -8%  -5%  4%
renewed growth

option 2: Only Forecasts

-8%  0%  5%  4%
Slowdown

Q4/12  Q1/13  Q2/13  Q3/13(F)

Q4/12  Q1/13  Q2/13  Q3/13
Thank you

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Survey of Expectations in Industry

Methodology

The main index = “Weighted net balances”

- The index represents the rate of reporting an increase minus the rate of reporting a decrease, weighted according to the intensity of the reported changes.

- The answers varies between 1 - 5, which means:
  - if 100% answered “3=No change” the index should be 0%.
  - if 100% answered “1=Significant Decrease” the index should be -100%.
  - if 100% answered “5=Significant Increase” the index should be +100%.

- Stage 1 => Basic index = (1 x %) + (2 x %) + (3 x %) + (4 x %) + (5 x %)
- Stage 2 => (Basic index/300-1)*3/2 = Weighted net balances