

COUNTRY SPECIFIC OR HARMONISED CONFIDENCE INDICATORS: EC AND OECD PRACTICES

**Ronny Nilsson
Statistics Directorate
OECD**

Introduction

Confidence indicators derived from business and consumer survey results are of key importance in assessing short-term economic developments. These sentiment indicators give crucial information on business and consumers assessments of the current economic situation and their intentions and expectations for the future.

Business survey indicators and related composite confidence indicators have been collected for the manufacturing sector and published by the Statistics Directorate for a long time and used as input series for the calculation of composite leading indicators for OECD member countries. The different types of composite confidence indicators published in the monthly OECD publication “Main Economic Indicators (MEI)” are presented in Table 1 and 2. The tables include as well such types of indicators available for China, India and Indonesia, but not yet published in MEI.

The Economics Department makes use of both business and consumer confidence indicators in the analysis of short-term economic developments in member countries. Business confidence indicators are mainly used to get advanced information on output growth and in particular, warnings on approaching cyclical turning points, while consumer confidence indicators are used to obtain valuable information on the likely development of real private consumption and household saving.

The increased use and availability of consumer confidence indicators across OECD member countries over recent years have prompted the Statistics Directorate to collect and publish such sentiment indicators on a regular basis. Since October 1996, consumer confidence indicators for 17 OECD member countries are published in MEI. An overview of these indicators is presented in Table 3.

The enlargement of OECD databases of business and consumer surveys to include sectors outside manufacturing i.e. construction, retail trade and other services, and selected Non-OECD Member countries is in progress and different types of business survey and confidence indicators are already published in MEI for Brazil, Russia and South Africa. Indicators for sectors outside manufacturing are, however, not covered in this paper..

Above type of business and consumer confidence indicators are currently published as national indicators by country in part 2 of the MEI publication. However, in connection with the expansion of survey data to new sectors and countries, we are exploring possibilities to present these types of indicators in a more focussed and comprehensive way. In other words, we are considering ways to improve the international comparability of this type of information. One way to do this would be to build on the system of harmonised confidence indicators calculated by the European Commission. Another way would be to standardise the country specific confidence indicators. The first approach is based on a standard set of components while the second approach would be based on country specific components.

The aim of this part of the paper is to give a short summary of how these business survey indicators and confidence indicators are calculated and indicate differences between national indicators and the harmonised confidence indicators calculated by the European Commission. The first part of the paper deals with such indicators published for the manufacturing sector and part two covers consumer confidence indicators.

I Business survey indicators and composite confidence indicators for manufacturing sector

Composite indicators based only on business survey information are included in many surveys or calculated from survey information in many OECD countries. Such confidence composite indicators may be classified into two basic categories according to their construction or information content. A first category concerns indicators based on a *single survey questions* and a second category covers composite confidence or sentiment indicators derived from *more than one survey question* relating to elements determining business conditions in own firm, e.g. production, demand, order books and stocks.

I.1 General Indicators on Business or Economic Situation

Indicators based on a *single survey questions* such as the general business or economic situation for the enterprise which may be considered as composite indicators in their own right in the sense that they combine factors determining the respondents' appraisals concerning order books, expected orders inflow, customers' situation and profit possibilities. The information from which they are derived may relate to the respondent's own firm or industry, the national industrial sector, or the national economy.

Indicators relating to the respondent's own firm may be labelled *internal*, in the sense that the composite index is based on survey information that is internal to the reporting enterprise. This type of question is asked in Japan, Korea, Czech Republic, Finland, Germany, Hungary, Norway, Poland, Slovak Republic, Brazil, China, India, Indonesia, Russia and South Africa

Other indicators of this type may be labelled *external* because the indicators are relating to information that is external to the reporting enterprise, such as the general economic situation in the country, industrial sector or industry. A question of this type is asked in Australia, New Zealand, France, Italy and the United Kingdom.

General Indicators on Business or Economic Situation are not part of the EC harmonised business surveys but for manufacturing industry but, as noted above, some EU Member countries and all EU Candidate countries include such indicators in their business surveys. Such indicators are, however, included in the EC harmonised system for other sectors. General indicators available for OECD Member countries and the Big 6 OECD Non-Member countries are set out in Table 1.

In addition to the scope of information covered by the indicator, the reference period for the indicator is also different across countries. The indicators may refer to both the present situation and the expected future situation. The reference period for the expected future situation range from 3 months up to 6 months ahead. Many countries collect information on both the current and future situation.

The indicators are expressed as balances in all countries with the exception of South Africa where the indicator is expressed as the percentage of respondents rating conditions as satisfactory.

Table 1 National General Indicators on Business or Economic Situation in Manufacturing Sector

	Source	Periodicity	Unit	Adjustment	Scope of information	Reference period	Indicator	Observation
Mexico	BM	M	Balance	nsa	Own firm	6 months ahead	Business situation	
Australia	ACCpac	Q	Balance	nsa	National economy	6 months ahead	Business situation	
Japan	BOJ	Q	Balance	nsa	Own firm	Present	Business outlook	
		Q	Balance	nsa	Own firm	3 months ahead	Business outlook	
Korea	BOK	M	Balance	nsa	Own firm	Present	Business conditions	
		M	Balance	nsa	Own firm	3 months ahead	Business conditions	
New Zealand	NZIER	Q	Balance	nsa	National economy	6 months ahead	Business situation	
Czech Republic	CSO	M	Balance	nsa	Own firm	Present	Business situation	
		M	Balance	nsa	Own firm	6 months ahead	Business situation	
Finland	CFIE	Q	Balance	nsa	Own firm	3 months ahead	Business situation	
France	INSEE	M	Balance	nsa	Industrial sector	3 months ahead	Expected production	
Germany*	Ifo	M	Balance	nsa	Own firm	Present	Business situation	
		M	Balance	nsa	Own firm	6 months ahead	Business situation	
Italy	ISAE	M	Balance	nsa	National economy	3 months ahead	Economic prospects	
Norway	SSB	Q	Balance	nsa	Own firm	3 months ahead	Business situation	
Poland	GUS	M	Balance	nsa	Own firm	Present	Business situation	
		M	Balance	nsa	Own firm	6 months ahead	Business situation	
Slovak Republic*	NSO	M	Balance	nsa	Own firm	Present	Business situation	
		M	Balance	nsa	Own firm	6 months ahead	Business situation	
United Kingdom	CBI	Q	Balance	nsa	Branch of industry	Past 4 months	Business situation	
Brazil	FGV	Q	Balance	nsa	Own firm	Present	Business situation	
		Q	Balance	nsa	Own firm	6 months ahead	Business situation	
China*	NBS	Q	Balance	nsa	Own firm	Present	Business situation	
		Q	Balance	nsa	Own firm	3 months ahead	Business situation	
India*	NCAER	Q	Balance	nsa	Own firm	6 months ahead	Overall economic conditions	
Indonesia*	BI/BPS	M	Balance	nsa	Own firm	Present	Business situation	
		M	Balance	nsa	Own firm	6 months ahead	Business situation	
South Africa	BEA	Q	Index	nsa	Own firm	Past 12 months	Business conditions	Percentage of respondents rating conditions as satisfactory

* Not published nsa=not seasonally adjusted

ACC	Australian Chamber of Commerce and WestPac Banking	BM	Bank of Mexico
BOJ	Bank of Japan	SN	Statistics Norway
BOK	Bank of Korea	GUS	Polish Statistical Office
NZIER	New Zealand Institute of Economic Research	NSO	Slovak Statistical Office
CSO	Czech Statistical Office	CBI	Confederation of British Industry
CFIE	Confederation of Finnish Industry and Employers	FGV	Fundacao Getulio Vargas Brazil
INSEE	Institute National/Statistique/Etudes Economiques	NBS	National Bureau of Statistics China
Ifo	Institute for Economic Research	NCAER	National Council of Applied Economic Research
ISAE	Instituto/Studio/Analisi Economica	BI/BPS	Bank of Indonesia/Statistics Indonesia
		BER	Bureau for Economic Research South Africa

I.2 *National Confidence Indicators*

The second category concerns composite confidence or sentiment indicators derived from *more than one question* relating to elements determining business conditions in own firm, e.g. production, demand, order books and stocks. The harmonised EC confidence indicator for industry is an example of this approach. This indicator is calculated as a simple average of the balances of the answers to the following three survey questions: (1) production expectations, (2) order books and (3) finished goods stocks. The last indicator is used in inverted form and all balances are seasonally adjusted. No standardisation is performed on the balance series.

Composite indicators of this type, but with other combinations of questions, are calculated from national surveys in the United States, Belgium, Germany, Switzerland, Russia, China and India. The construction of these national confidence indicators are outlined in the following.

United States (ISM)

The composite indicator published by the Institute for Supply Management (ISM) is calculated as a diffusion index with a midpoint of 50 instead of 0 as for a balance series. The index is calculated as a weighted average of the diffusion indexes for the following five indicators with indicated weights:

<i>Components</i>	<i>weights</i>	<i>reference period</i>
New orders	30%	1 month ago
Production	25%	1 month ago
Employment	20%	1 month ago
Deliveries	15%	1 month ago
Stocks	10%	present

The diffusion index monitors the current situation because all components are reflecting the situation for the current month.

Mexico (BM)

The confidence indicator by the Bank of Mexico (BM) is calculated as a simple average of the balances to the following five survey questions:

<i>Components</i>	<i>reference period</i>
Business climate	1 moth ahead
Financial and economic situation	1 month ago
Business situation	6 months ahead
Employment situation	6 months ahead
Investment situation	Present

The indicator is published as an index series by adding 100 to the average of the balances.

Belgium (NBB)

The composite indicator by the National Bank of Belgium (NBB) is calculated as a simple average of seasonally adjusted balance series from the following eight survey questions:

<i>Components</i>	<i>reference period</i>
Production	1 month ago
Domestic orders	1 month ago
Export orders	1 month ago
Order books	present
Export order books	present
Stocks of finished goods	present
Expected employment	3 months ahead
Expected demand	3 months ahead

Germany (Ifo)

The business climate indicator by the Institute for Economic Research (Ifo) combines answers to two questions on business situation at present and 6 months ahead. The geometric average of the two seasonally adjusted balances is calculated to give the composite index. The resulting balances are linked to a base year (currently 1991) with a base value of 100.

Switzerland (KOF)

The confidence indicator by the Swiss Institute for Business cycle R (KOF) is calculated as a simple average of seasonally adjusted balance series from the following four survey questions:

<i>Components</i>	<i>reference period</i>
Order receipts	12 month ago
Production	12 month ago
Order books	Present
Stocks of finished goods	Present

Russia (CEA)

The confidence indicator by the Centre for Economic analysis (CEA) is calculated as a simple average of seasonally adjusted balance series from the following three survey questions:

<i>Components</i>	<i>reference period</i>
Production	3 months ahead
Demand/order books	Present
Stocks of finished goods	present

China P. R. (NBS)

The confidence indicator by the National Bureau of Statistics (NBS) is calculated as a simple average of seasonally adjusted balance series from the following five survey questions:

<i>Components</i>	<i>reference period</i>
Business situation	Present
Expected business situation	6 months ahead
Order books	Present
Stocks of finished goods	Present
Expected production	3 months ahead

India (NCAER)

The confidence indicator by the National Council of Applied Economic Research (NCAER) is calculated as a simple average of seasonally adjusted balance series from the following four survey questions:

<i>Components</i>	<i>reference period</i>
Overall economic conditions	6 months ahead
Financial position	6 months ahead
Investment climate	Present
Capacity utilization	Present

Table 2 National Confidence Indicators in Manufacturing Sector

	Source	Periodicity	Unit	Adjustment	Reference period for components	Components and weights	Construction
United States	ISM	M	Normal=50	sa	Present	New orders (30%) Production (25%) Employment (20%) Deliveries (15%) Stocks (10%)	Weighted average
Mexico	BM	M	1998=100	nsa	1 months ahead 1 month ago 6 month ahead 6 month ahead Present	Business climate Financial situation Business situation Employment situation Investment situation	Simple average
Belgium	NBB	M	Balance	sa	Present/ 3 months ahead	Production Domestic orders Export orders Order books Export order books Stocks of finished goods Expected employment Expected demand	Simple average
Germany	IFO	M	1991=100	sa	Present/ 6 months ahead	Business situation Business situation	Geometric average
Switzerland	ETH/KOF	M	Balance	sa	Present/past 12 months	Order receipts Production Order books Stocks of finished goods	Simple average
Russia	CEA		Balance	nsa	Present/ 3 months ahead	Expected production Demand/order books Stocks of finished goods	Simple average
China P.R.*	NBS	Q	Balance	nsa	6 months ahead present	Business situation Expected business situation Order books Stocks of finished goods Expected produktion	Simple and geometric average
India*	NCAER	Q	Index	nsa	6 months ahead/ present/ past 6 months	Overall economic conditions Financial position Investment climate Capacity utilisation	Simple average of positive responses

* Not published
sa=seasonally adjusted
nsa=not seasonally adjusted

BM Bank of Mexico
ISM Institute for Supply Management United States
NBB National Bank of belgium
Ifo Instiute for Economic Research
KOF Swiss Institute for Business Cycle Analysis
CEA Centre for Economic Analysis Russia
NBS National Bureau of Statistics China
NCAER National Council of Applied Economic Research India

I.3 National Indicators versus EC Harmonised Confidence Indicators

National General Business Survey Indicators

The national indicators presented above for the manufacturing industry are currently published or will be included in the in the OECD database of business and consumer surveys. These national indicators are, however, not available for all countries and very different across countries. National general indicators based on a single survey question are covered by surveys in 18 of the 35 OECD Member and Big 6 Non-Member countries considered here. The coverage of such indicators is very good in the Big 6 Non-OECD Member countries with five of six countries asking such a question. Among the OECD Non-EU Member and Candidate countries the situation is less good with only four of the ten countries including such questions in their surveys. In EU Member and Candidate countries such indicators are covered by surveys in 9 of the 25 countries (see Table!).

The EC Harmonised confidence indicators are, however, available for both EU Member and Candidate countries and these indicators represent a more comprehensive set of indicators compared to the available national general indicators for these countries. On the other hand, for the OECD Non-EU Member countries and the Big 6 OECD Non-Member countries such national general indicators represent for many countries the only available information on general activity. For this reason it would be interesting to compare the two types of indicators for countries for which both types are available to see how well they resemble each other.

A general indicator on prospects for the industrial sector is included in the surveys conducted by INSEE for France. This indicator is compared with the industrial confidence indicator published by EC for France. Both indicators are plotted in Chart 1 for the period 1985-2003 which shows that the developments of the two indicators are very close and cyclical swings follow the same patterns. This is not very surprising due to the fact that the indicator on prospects for industrial sector is measured in terms of production expectations over the next 3 months because a similar indicator is one of the components in the EC industrial confidence indicator. The close fit between the two indicators is confirmed by cross-correlation results which show a peak-correlation coefficient of 0.85 at a one months lead for the national indicator.

General indicators on business situation are included in the surveys in all EU Candidate countries for manufacturing industry and this indicator for the Czech Republic is compared with the EC industrial confidence indicator for the Czech Republic. The two indicators are shown in Cart 2 for the period 1993-2003 which shows a rather similar development between the two indicators even though both show somewhat irregular behaviour despite the fact that the EC confidence indicator is adjusted for seasonal fluctuations. Correlation results show a peak-correlation coefficient of 0.74 at a lead of 2 months for the EC confidence indicator.

Chart 1

France: INSEE Prospects for Industrial sector vs EC Confidence Indicator Balance

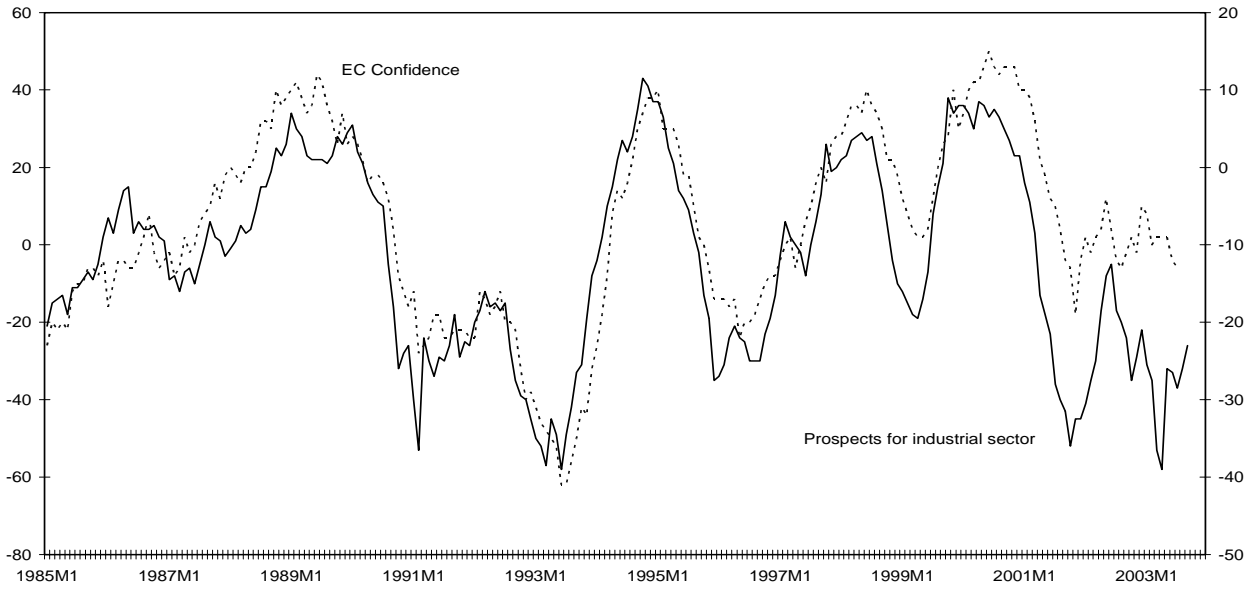
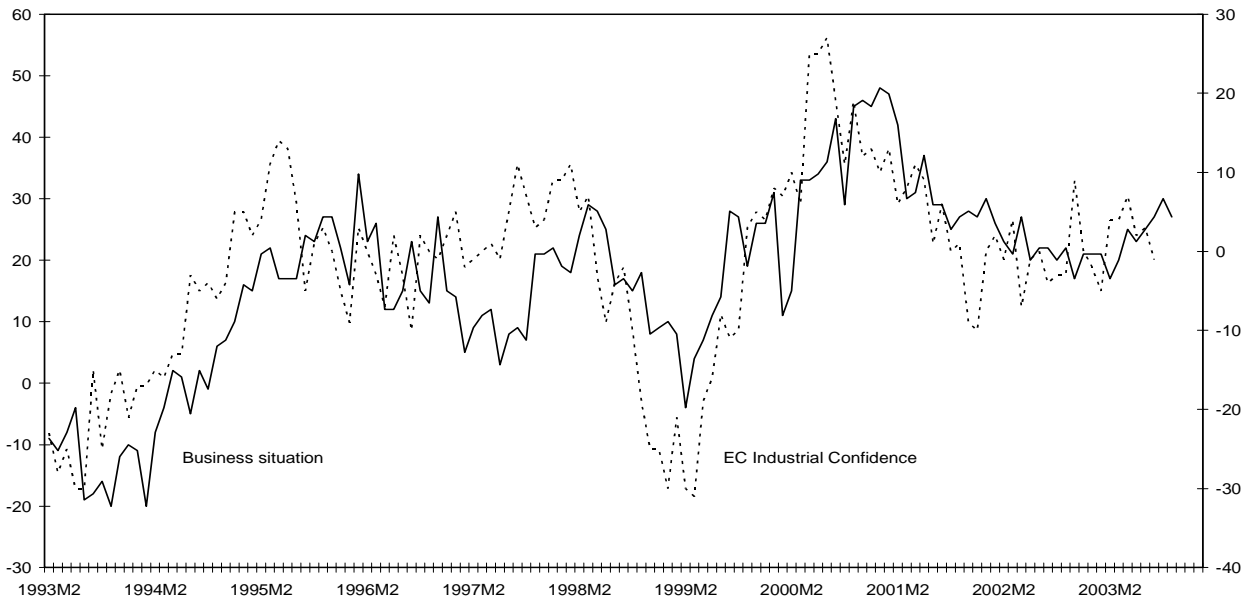


Chart 2

Czech Republic: Business Situation vs EC Industrial Confidence Indicator Balance



National Confidence indicators

National confidence indicators for which information is available are set out in Table 2 which shows that only a few countries calculate such indicators. Among OECD Non-EU Member and Candidate countries a confidence indicator is only available for the United States while three of the Big 6 OECD Non-Member countries publish such indicators. National as well as EC harmonised industrial confidence indicators are available for three EU Member countries.

The EC harmonised confidence indicators are, as noted above, available for 19 OECD Member countries and represents a comprehensive set of indicators. For this reason it would be interesting to compare these indicators with national confidence indicators for countries for which both indicators are available to see how well they match. This would give indications on how reasonable it would be to publish and use the two types of indicators for cross-country comparisons. In particular if such indicators were to be constructed for countries with neither of the two types of indicators available.

A national industrial confidence indicator is published by the National Bank of Belgium. This indicator is based on eight indicators of which three are as well components of the EC industrial confidence indicator for Belgium. The two indicators are plotted in Chart 3 for the period 1985-2003 which shows that the developments of the two indicators are extremely close and cyclical patterns are almost identical. This is not so surprising given the fact that three of the components are the same in the two indicators. This is confirmed by the correlation results which show a peak- correlation coefficient of 0.96 at zero lag.

The Ifo Institute publish a national confidence indicator i.e. the Ifo Business Climate indicator for Germany. This indicator is based on two general indicators on current and expected business situation and is interesting for the possible use of such general indicators for countries with no general indicators or confidence indicators. The Ifo indicator is plotted against EC industrial confidence indicator in Chart 4 which shows a an extremely high correspondence between the two indicators with cyclical swings very well coordinated. This is confirmed by correlation results which show a peak-correlation coefficient of 0.98 at a one month lead for the Ifo Business Climate indicator

Chart 3

Belgium: NBB Syntetic Indicator vs EC Industrial Confidence Indicator Balance

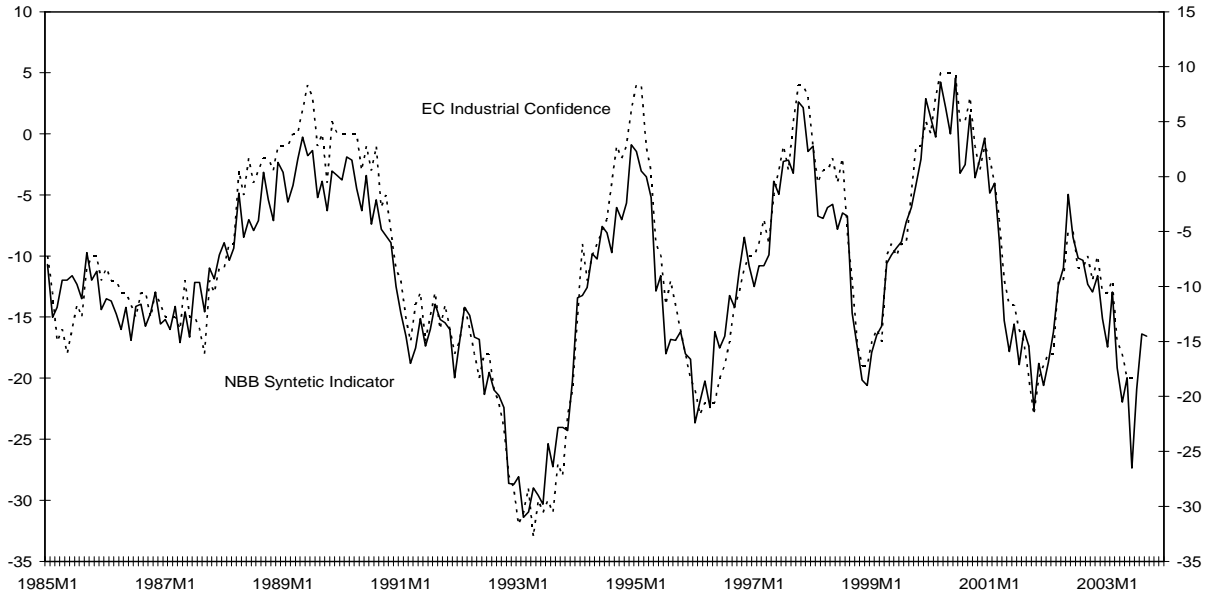
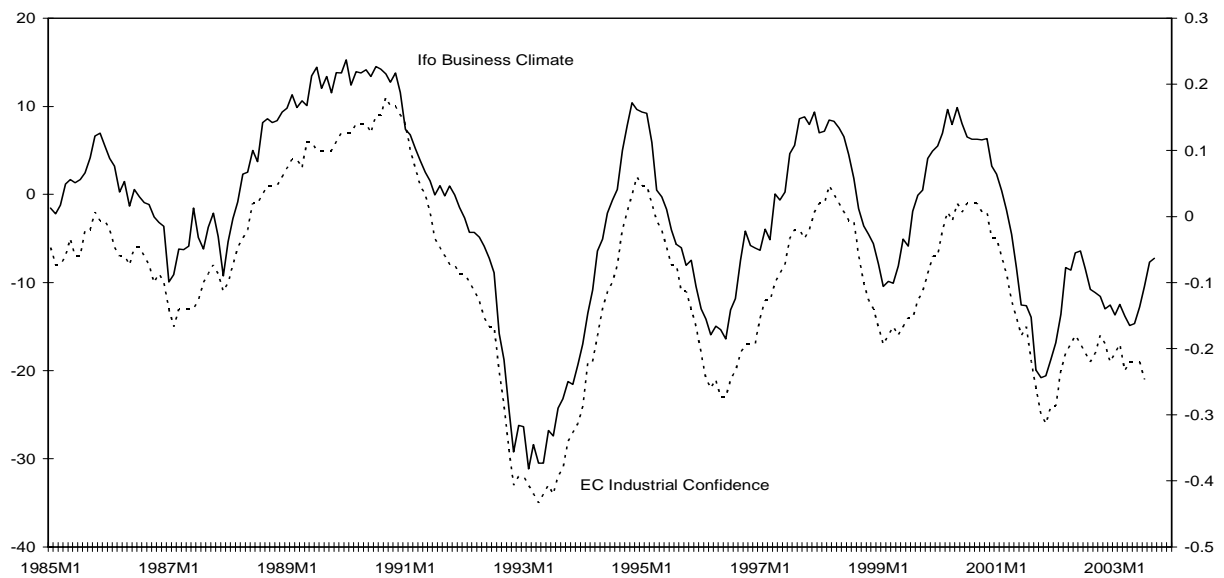


Chart 4

Germany: Ifo Business Climate vs EC Industrial Confidence Indicator Balance and Index



I.4 Harmonised Industrial Confidence Indicators in OECD Non-EU Member and Candidate countries

One way to improve international comparability of confidence indicators would be to build on the system of harmonised confidence indicators calculated by the EC. This approach is tested here by investigating the possibility to calculate harmonised EC confidence indicators for manufacturing industry in OECD Non-EU Member and Candidate countries and the Big 6 OECD Non-Member countries.

The harmonised EC confidence indicator for industry is calculated as a simple average of the balances of the answers to the following three survey questions: (1) production expectations, (2) order books and (3) finished goods stocks. The last indicator is used in inverted form and all balances are seasonally adjusted. No standardisation is performed on the balance series. The format of the three components of the EC harmonised confidence indicator in industry are as follows:

<i>Component</i>	<i>Harmonised format</i>
Production future tendency	Change over next 3 months (F3)
Order books	Present level above or below normal (L)
Finished goods stocks	Present level above or below normal (L)

The availability of these three indicators in the EC harmonised format would allow the calculation of harmonised confidence indicators in OECD Non-EU Member and candidate countries. The coverage of EC components and differences from the standard of such indicators is set out in Table 3 below.

Table 3 Coverage of harmonised EC components in industry and differences from the standard of such indicators in OECD Non-EU Member and Candidate countries

Coverage of harmonised components	Countries with all components with harmonised format	Format of components as available from national sources
<i>All EC components available</i>		
Canada	Canada	
Australia		T3, order books and finished goods stocks
New Zealand		T3, order books
Norway	Norway	
Switzerland	Switzerland	
Turkey		T3, order books and finished goods stocks
United States		T1, production and finished goods stocks
Brazil		T3, production
China P.R.	China	
India		F6, production
Indonesia	Indonesia	
Russia		T1 order books
<i>2 of 3 EC components available</i>		
Korea		F1, production
<i>1 of 3 EC components available</i>		
Mexico		
Japan		
South Africa		F12, production
T1 = Past/ present change compared to 1 month ago		F6 = Future change for 6 months ahead
T3 = Past/present change compared to 3-4 months ago		F12 = Future change for 12 months ahead
F1 = Future change for 1 month ahead		

Twelve of the sixteen OECD Non-EU Member and Candidate countries and Big 6 OECD Non-Member countries cover in their surveys all the harmonised questions used for the calculation of the EC industrial confidence indicator. This would mean that harmonised confidence indicators could be calculated for these twelve countries. However, if the format of the questions is considered the number of countries with strictly harmonised components is reduced to five countries. It is worth noting that the difference between the national formats and the harmonised format concerns in most cases the two components on order books and finished goods stocks which are measured in terms of above or below a normal level in harmonised format and as the change over 3-4 months ago in the national surveys. In the case of the component production expectations, a few countries include only a question on the change in production over 1 month ago or 3-4 months ago. A special case is the survey by the NCAER in India which asks for production expectations over the next 6 months and not the next 3 months as specified for the harmonised format.

I.5 Composite Indicators based on Mixed Data Sources

Two different strategies could be used for the selection of component series to be included in a composite indicator. A standard set of indicators across countries may be used or an individual set of indicators per country may be used. The use of a standard set of indicators across countries is a good approach for obtaining international comparability. However, cyclical indicators, which perform well in one country, may not work well in another because of differences in economic structure and statistical system. This is important if the objective is to get a composite indicator with a good cyclical performance with optimal leading characteristics against overall economic activity in a country.

The harmonised EC confidence indicator for industry is an example of an approach with a standard set of components based on qualitative business tendency survey data only. An approach based on mixed data sources is the OECD composite leading indicators (CLIs) calculated for 22 OECD Member countries. The OECD CLIs are based on both qualitative business tendency and consumer survey data in addition to quantitative economic and financial data. In addition, the OECD CLIs do not use a standard set of leading indicator component series for all countries. The different data sources from which the OECD leading indicator component series are chosen are set out in Table 4 and the individual leading indicator series used are set out in Annex 1.

The business tendency survey (BTS) sources indicated in Table 4 distinguish between the EC standard components and other business tendency survey data. The share of BTS indicators used in the OECD CLIs across all countries is 40 per cent and among these series the share of EC standard components is 38 per cent and the share of other BTS series used is 62 per cent. The difference between the two sets of BTS sources is even more pronounced among the two country groups OECD Non-EU countries and EU Member countries. In the first group, 78 per cent of the BTS series are selected from other series than the standard EC components, while among EU countries this share is 55 per cent. However, the high share of other BTS series in OECD Non-EU countries is of course explained by the lack of such series in some of these countries. On the other hand, the high share of other BTS series in EU Member countries means that in several countries some of these series show better leading characteristics than the standard EC components. In addition to the BTS series, consumer confidence indicators are also good cyclical indicators in certain countries, but their share across countries is not as important as the BTS indicators. This is partly explained by the fact that the confidence indicator is a composite indicator in its own right but only counted as one series even though it is based on several components.

It is, however, worth noting that the share of quantitative economic and financial series is 53 per cent across all countries and as high as 64 per cent among OECD Non-EU countries and 47 per cent across EU member countries.

The diversity of components included in the OECD system of leading indicators from mixed data sources of both qualitative survey data and quantitative economic and financial series support the view that it is very difficult to use a standard set of component series if the aim is to get maximum leading characteristics of the resulting composite leading indicator. However, if the aim is to get a coincident indicator for economic activity, then a standard set of components may be more suitable.

Table 4 Component Series Used for Compilation of OECD Composite Leading Indicators

Country	Components				
	Total Number of components	Business Tendency Survey Components	Other business tendency survey series	Consumer Confidence Indicators	Other Components Quantitative series
OECD Non-EU countries					
Canada	8	2		1	5
Mexico	7		3		4
United States	7		1	1	5
Australia	7		3		4
Japan	7				7
Norway	6		2		4
Switzerland	7	1	2		4
Turkey	7	1	3		3
Total	56	4	14	2	36
EU Member countries					
Austria	6	2	1	1	2
Belgium	6		4	1	1
Denmark	8	1	1	1	5
Finland	9		3	1	5
France	10	2	1	1	6
Germany	6	1	3		2
Greece	9	1	2		6
Ireland	8	2	1	1	4
Italy	6	1	1	1	3
Netherlands	6	3	2		1
Portugal	6	2	1		3
Spain	5	2	1		2
Sweden	9	2	2		5
United Kingdom	7	1	2	1	3
Total	101	20	25	8	48
Total all countries	157	24	39	10	84

II Consumer Confidence Indicators

II.2 EU Member Countries

For the majority of European Union (EU) countries, data come from the consumer surveys carried out by the European Commission. The confidence indicators published by the OECD correspond to the ones published by the EC for the following 8 EU countries: Belgium, Germany, Greece, Ireland, Netherlands, Portugal, Spain and the United Kingdom. For the remaining EU countries i.e. Austria, Denmark, France, Italy and Sweden, data are compiled according to national definitions.

For all EU countries, the confidence indicator up to mid-2001 was an average of the answers (balances) to the following five questions:

- (1) Current financial situation of household compared to past 12 months;
- (2) Expected change in financial situation of household over next 12 months;
- (3) Change in general economic situation over past 12 months;
- (4) Expected change in general economic situation over next 12 months;
- (5) Current conditions for making major purchases

The new confidence indicator published from August 2001 is the average of the answers (balances) to the following four questions:

- (1) Expected change in financial situation of household over the next 12 months;
- (2) Expected change in general economic situation over next 12 months;
- (3) Expected change in unemployment over the next 12 months
- (4) Expected change in savings of household over next 12 months

The confidence indicator is based on the above questions with five answer alternatives to each question (a lot better, a little better, the same, a little worse, a lot worse). The confidence indicator is expressed as the balance of positive over negative results. The confidence indicator published by the EC is constructed with double weights on the extremes. Responses “a lot better” and “a lot worse” get the weight 1 and “a little better” and “a little worse” get the weight 1/2, and “the same” has zero weight.

The confidence indicators published by the OECD for the three EU countries i.e. *Austria*, *France*, and *Sweden* are computed according to national practices i.e. with equal weights to positive and negative answer alternatives. The national and old and new EC confidence indicators for *France* are plotted in charts 5 and 6 below. The national indicator and the old EC indicator are plotted in Chart 5 for the period 1987 to 1999 and the developments over time of the two indicators are about the same, but a minor difference in level is registered. The correlation between the two indicators is very high with a correlation coefficient of 0.98 at zero lag. The national indicator and the new EC indicator are shown in Chart 6 for the period 1990-2003. The developments over time of the two indicators are very close and the peak-correlation between the two indicators is rather high with a peak-correlation coefficient of 0.92 at zero lag. The correlation between the old and new EC confidence indicators is also very high with a peak-correlation coefficient of 0.95 at zero lag.

Chart 5

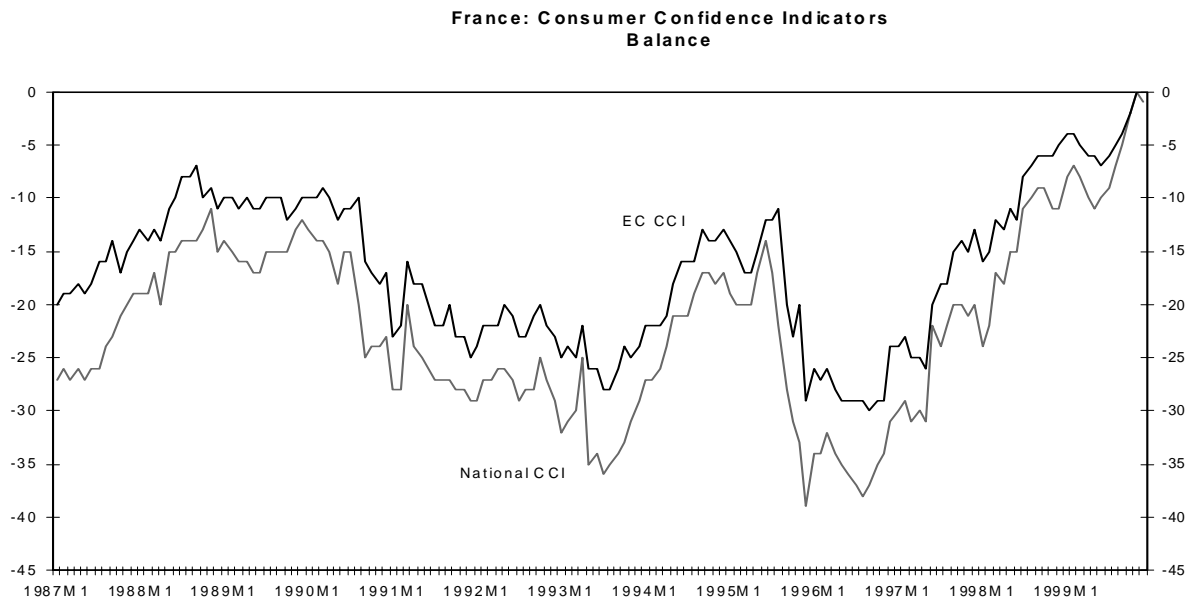
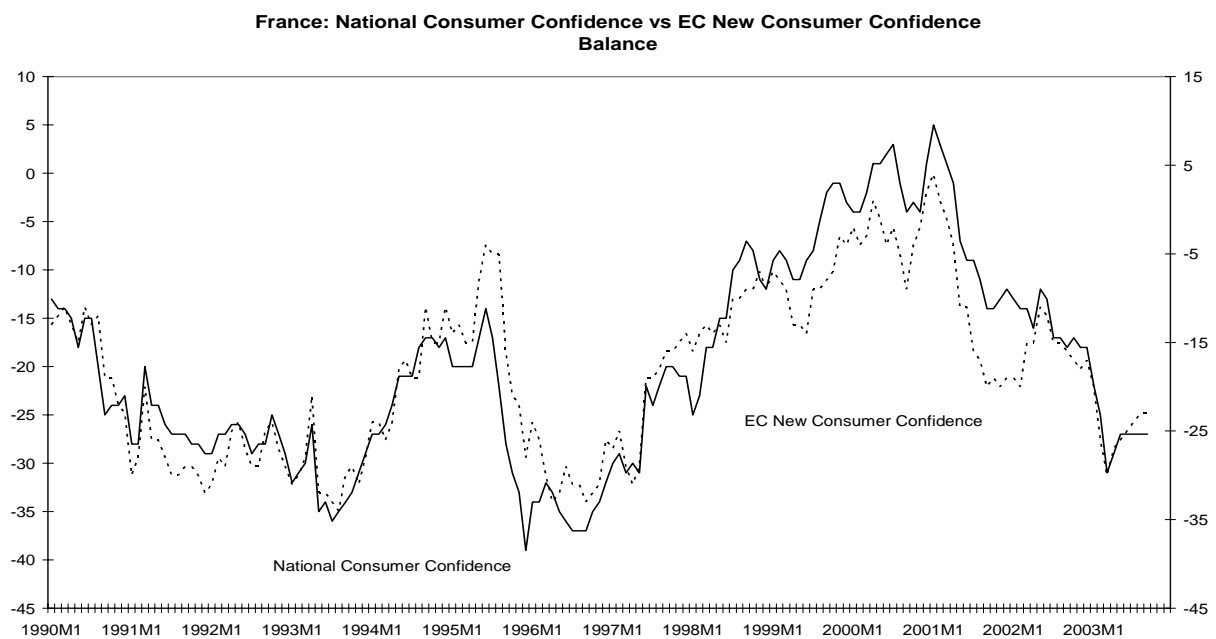
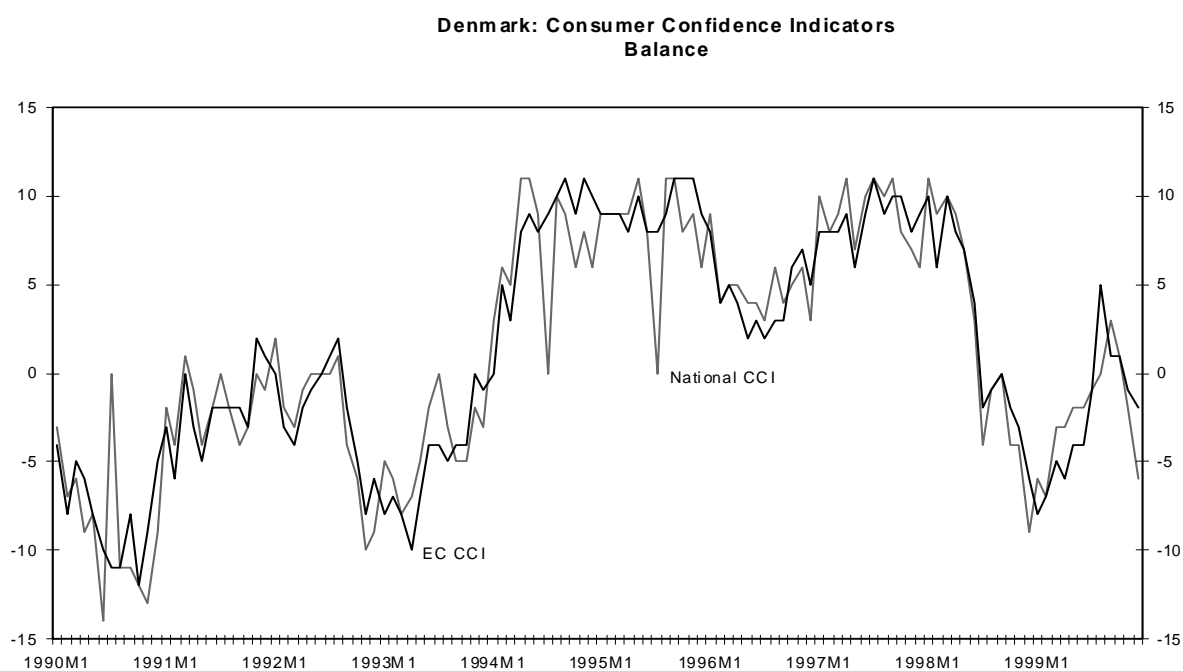


Chart 6



The OECD publishes seasonally adjusted confidence indicators for most EU countries. However, the indicators published for *Austria, Denmark and Sweden* are not adjusted for seasonal variation. The national and EC confidence indicators for Denmark are shown in Chart 7 below. The two indicators show the same general pattern and differences for a few periods are mainly due to the seasonal effect showing up in the unadjusted national indicator.

Chart 7



The confidence indicator for *Italy* published until now by the OECD is compiled according to national practice and differs from the one published by the EC in the selection of questions for the composite confidence indicator and in the construction of the indicator. The indicator is an average of the answers to the following nine questions:

- (1) Change in general economic situation over past 12 months;
- (2) Expected change in general economic situation over next 12 months;
- (3) Change in economic situation of household over past 12 months;
- (4) Expected change in economic situation of household over next 12 months;
- (5) Expected change in the level of unemployment over next 12 months;
- (6) Ability to make savings over next 12 months
- (7) Current conditions for making savings;
- (8) Current conditions for making major purchases;
- (9) Current financial situation of household

The confidence indicator is calculated using all five answer alternatives to each question with double weights on the extremes i.e. (2, 1, 0, 1, 2). The national index is expressed in base 1980=100. The OECD publishes the indicator with 1990=100. The national and the old EC confidence indicators for Italy are plotted over the period 1990-1999 in chart 8 below. The two indicators show the same general development, but a slight difference is registered over a few periods. The correlation between the two indicators is rather high with a peak-correlation coefficient of 0.94 at zero lag. The new EC confidence indicator and the national confidence indicator are plotted in Chart 9 over the period 1990-2003. The developments of the two indicators are quite different over certain periods and this is indicated by the correlation results which show a peak-correlation coefficient of 0.81 at zero lag. The differences between the old and new EC indicators are also confirmed by a rather low correlation between the two indicators with a peak-correlation coefficient of 0.69 at zero lag.

Chart 8

**Italy: Consumer Confidence Indicators
Balance (RS) and Index (LS)**

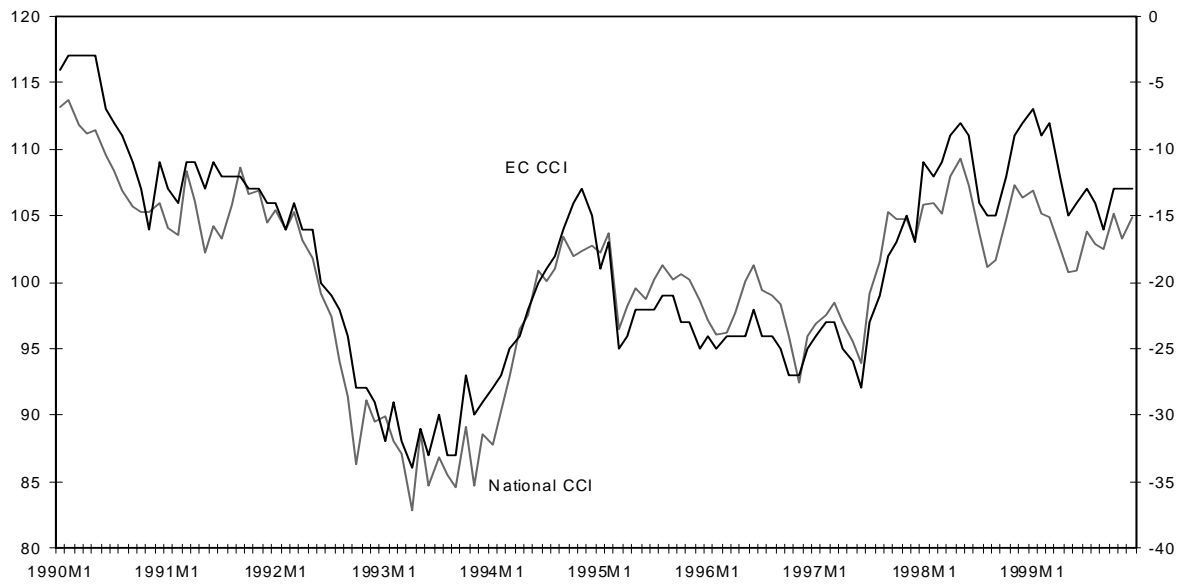
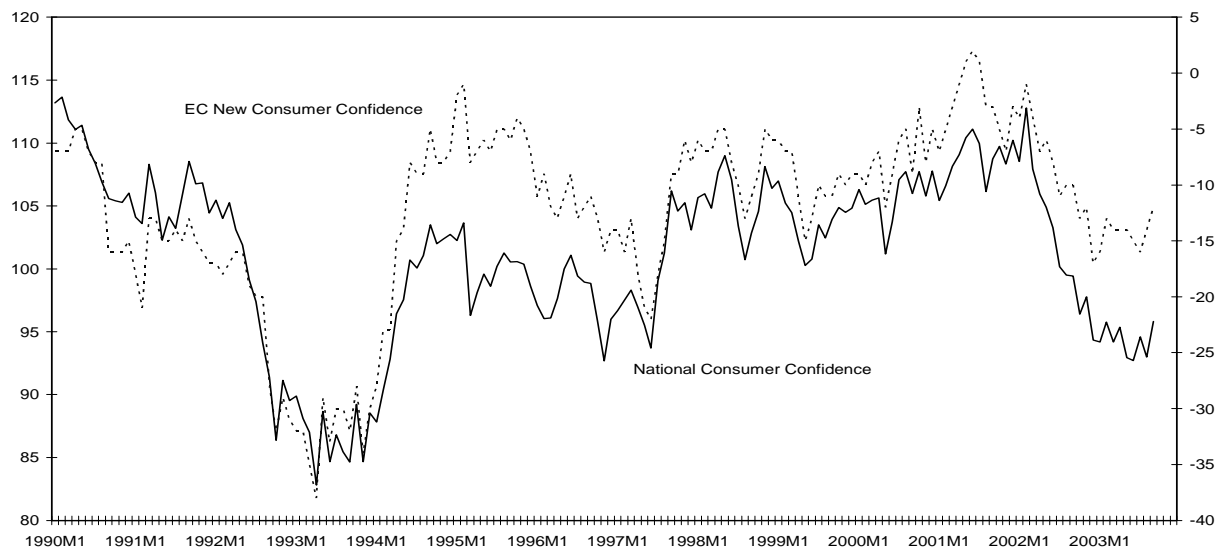


Chart 9

**Italy: National Consumer Confidence vs EC New Consumer Confidence
Balance and Index**

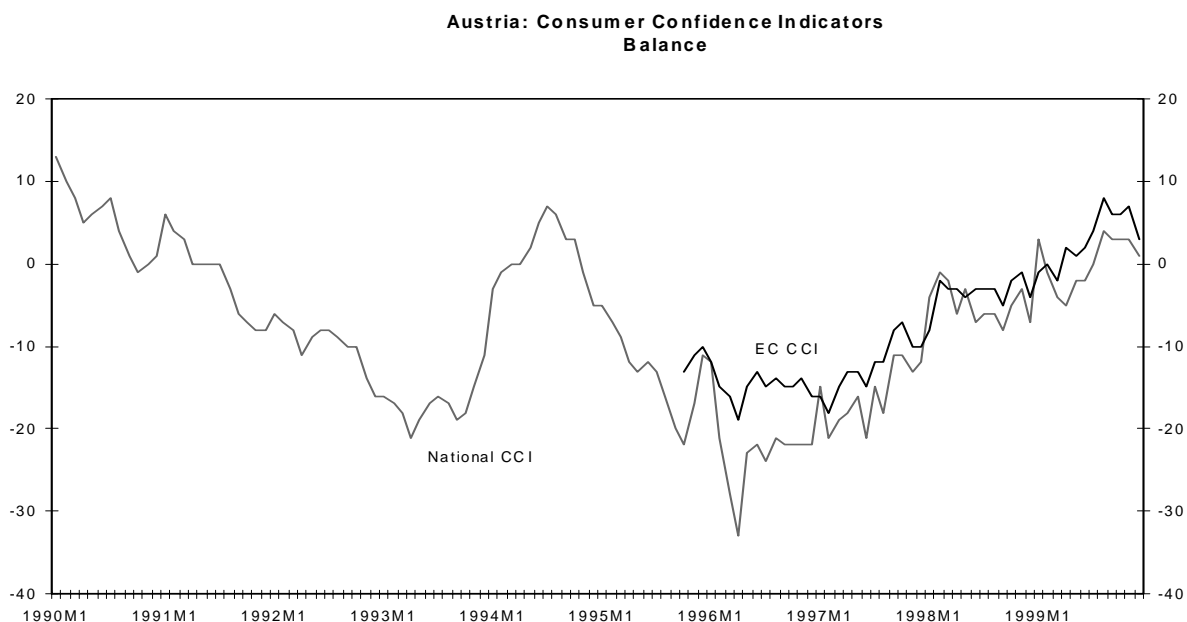


A confidence indicator for *Austria* is now published by the EC and the indicator published by the OECD is compiled according to national practice. The national indicator is an average of the answers to the following three questions:

- (1) Expected change in financial situation of household over next 12 months;
- (2) Expected change in general economic situation over next 12 months;
- (3) Expected change in consumer expenditure of household over next 12 months

The indicator is based on above questions with three answer alternatives to each question and calculated as the balance between positive and negative answers plus 100. The OECD publishes the indicator as a balance series i.e. 100 is deducted from the series value. The national and EC confidence indicators for Austria are plotted in chart 10 below. The two indicators show the same general development, but a slight difference is registered over a few periods.

Chart 10



II.2 *OECD countries outside EU*

Confidence indicators compiled according to national definitions are published for the following countries: United States, Mexico, New Zealand, Japan, Switzerland, China and South Africa. Information on national indicators is in addition available for Australia and Korea... A summary of how these national confidence indicators are calculated is presented in Table 6 and outlined in the following.

United States

The consumer confidence indicator published for the United States is compiled by the Survey Research Center at the University of Michigan. The monthly indicator is based on the results of a consumer survey based on interviews conducted by telephone with just over 500 respondents each month. The sentiment indicator is an average of the answers to the following five individual questions:

- (1) Current personal finances compared to past 12 months;
- (2) Expected personal finances over next 12 months;
- (3) Expected business situation over the next 12 months;
- (4) Expected business situation over the next 5 years;
- (5) Current buying conditions for durable goods

The indicator is based on the above questions with three answer alternatives to each question. It is calculated using all answer alternatives with the following weights; “good times” (better) gets the weight 2, “no change” gets the weight 1 and “bad times” (worse) gets the weight 0. Alternatively the index level can be calculated by subtracting negative replies from positive replies, that is the percent saying “good times or “better” minus the percent saying “bad times” or “worse”, and adding 100. The national index is expressed in base quarter 1 1966=100. The OECD publishes the indicator benchmarked to 1990=100 and adjusted for seasonal variation.

The main difference between this indicator and the EC harmonised indicator is the inclusion of the question on expected business situation over the next 5 years in place of the question on past general economic situation as in the EC confidence indicator.

Mexico

The consumer confidence indicator published for Mexico is compiled by the INEGI. The sentiment indicator is the average of the answers to the following five individual questions:

- (1) Current household situation compared to past 12 months;
- (2) Expected household situation over next 12 months;
- (3) Expected economic situation over the next 12 months;
- (4) Expected economic situation over the next 5 years;
- (5) Current buying conditions for durable goods

The indicator is expressed as the simple average of the balance of positive over negative results to each question. The components included in the indicator is the same as the ones for the United States, but the indicator is published by the OECD benchmarked to January 2003=100.

Australia

The consumer confidence indicator published for Australia is compiled by the MIASER. The sentiment indicator is an average of the answers to the following five individual questions:

- (1) Current family finances compared to past 12 months;
- (2) Expected family finances over next 12 months;
- (3) Expected economic conditions over the next 12 months;
- (4) Expected economic conditions over the next 5 years;
- (5) Current buying conditions for major household goods

The indicator is expressed as the simple average of the balance of positive over negative results to each question. The components included in the indicator is the same as the ones for the United States, but the indicator is published by MIASER as an index series with normal=100.

New Zealand

The consumer confidence indicator published for New Zealand is compiled from results of a consumer survey conducted under the joint sponsorship of Westpac Banking Corporation and McDermott Miller Limited. The survey is conducted quarterly among a random sample of at least 1 550 persons. Data collection is performed by computer aided telephone interviews. The sentiment indicator is an average of the answers (balances) to the following five questions:

- (1) Current personal financial situation compared to past 12 months
- (2) Expected personal financial situation over next 12 months
- (3) Expected business situation over the next 12 months;
- (4) Expected business situation over the next 5 years;
- (5) Current buying conditions for major household purchases

The indicator is expressed as the balance of positive over negative results to each question plus 100. The OECD publishes the indicator according to national practice i.e. with normal=100 and with no adjustment for seasonal variation..

This indicator is constructed in the same way as the one for the United States. The main difference in relation to the EC harmonised confidence indicator concerns the inclusion of the question on expected business situation over the next five years in place of the question on past general economic situation as in the EC indicator.

Japan

The published consumer confidence indicator is compiled by ESRI. The indicator is based on results from a quarterly consumer survey among a sample of 5 040 households (excluding single person and foreign households). The sentiment indicator is an average of the answers to the following five individual survey questions:

- (1) Standard of living over next 6 months;
- (2) Income growth over next 6 months;
- (3) Commodity price development over next 6 months;
- (4) Employment environment over next 6 months;
- (5) Optimal time for durable goods purchases over next 6 months

The confidence indicator is based on the above questions with five answer alternatives to each question .The indicator is calculated over all answer alternatives to each question with the following weights to the different answer alternatives: (1) improve (increase) gets the weight 1, (2) somewhat improve (increase) gets the weight 0.75, (3) no change gets the weight 0.5, (4) somewhat deteriorate (decrease) gets the weight 0.25 and (5) deteriorate (decrease) gets the weigh 0.

This indicator is very different from the EC harmonised indicator both in the selection of questions making up the indicator, the time period considered and in the construction of the indicator. Only one question i.e. “optimal time for durable goods purchases” is the same compared to the EC indicator. The indicator is computed with different weights to all answer alternatives giving an indicator expressed in percent form, with a scale between 0 and 100 and not a percent balance scale (+/-100) as in the EC confidence indicator. In addition, the confidence indicator published by the OECD is adjusted for seasonal variation.

Korea

The published consumer confidence indicator is compiled by The National statistical Office of Korea.. The consumer expectations indicator is an average of the answers to the following five individual survey questions:

- (1) Business conditions over the next 6 months
- (2) Standard of living over next 6 months;
- (3) Household consumption over next 6 months;
- (4) Purchase of durable goods over next 6 months;
- (5) Expenditure on services over next 6 months

The confidence indicator is based on the above questions with three or five answer alternatives to each question .The indicator is calculated over all answer alternatives to each question with the following weights to the different answer alternatives in the case of five answer alternatives: (1) improve (increase) gets the weight 2, (2) somewhat improve (increase) gets the weight 1.5, (3) no change gets the weight 1.0, (4) somewhat deteriorate (decrease) gets the weight 0.5 and (5) deteriorate (decrease) gets the weigh 0.A weighted average of the balances makes up the consumer expectations indicator. Indicators (4) and (5) above are given half the weight compared to the other three indicators. The indicator is expressed as the balance of positive over negative results to each question plus 100.

A present situation index is also calculated based on the two questions on current business conditions and current household living standard.

Switzerland

The consumer confidence indicator published by the OECD is compiled by the Office Federal des Questions Conjoncturelles (OFQC). The indicator is based on the results of a quarterly consumer survey conducted by the Institute fur Konsumenten und Sozialanalysen AG (Konso). The sentiment indicator is an average of the answers (balances) to the following three individual questions:

- (1) Change in general economic situation over past 12 months;
- (2) Current financial situation of household compared to past 12 months;
- (3) Expected change in financial situation of household over next 12 months

The confidence indicator is based on the above three questions and is expressed as the balance of positive over negative results. The balances are computed, with equal weights to positive and negative answer alternatives. The confidence indicator published by the OECD is not adjusted for seasonal variation.

The main difference between this indicator and the EC harmonised confidence indicator is that it includes only a subset of the questions included in the EC indicator. The two questions related to the future general economic situation and the current conditions for making major purchases are excluded in the indicator for Switzerland.

China P. R.

The consumer confidence indicator published for Australia is compiled by the National Bureau of Statistics (NBS). The sentiment indicator is an average of the answers to the following four individual questions:

- (1) Household situation over next 12 months

- (2) Expected economic situation over past 12 months;
- (4) Expected economic conditions over the next 12 months
- (5) Current buying conditions for major household goods

The indicator is expressed as the simple average of the balance of positive over negative results to each question.

South Africa

The consumer confidence indicator published for South Africa is compiled by the Bureau for Economic Research (BER). The sentiment indicator is an average of the answers to the following three individual questions:

- (3) Expected economic conditions over the next 12 months;
- (4) Expected household finance over the next 12 months;
- (5) Current buying conditions for major household goods

The indicator is expressed as the simple average of the balance of positive over negative results to each question.

II.3 Harmonised Consumer Confidence Indicators in OECD Non-EU Member and candidate countries

One way to improve international comparability of confidence indicators would be to build on the system of harmonised confidence indicators calculated by the EC. This approach is tested here by investigating the possibility to calculate harmonised EC consumer confidence indicators in OECD Non-EU Member and Candidate countries and the Big 6 OECD Non-Member countries.

The format of the five and four components of the old and new EC harmonised consumer confidence indicators are as follows:

Old EC Consumer confidence indicator:

<i>Component</i>	<i>Harmonised format</i>
Current financial situation of household	Change over past 12 months (T12)
Expected change in financial situation of household	Change over next 12 months (F12)
Change in general economic situation	Change over past 12 months (T12)
Expected change in general economic situation	Change over next 12 months (F12)
Current conditions for making major purchases	Present situation

New EC Consumer confidence indicator:

<i>Component</i>	<i>Harmonised format</i>
Expected change in financial situation of household	Change over the next 12 months (F12)
Expected change in general economic situation	Change over next 12 months (F12)
Expected change in unemployment	Change over the next 12 months (F12)
Expected change in savings of household	Change over next 12 months (F12)

The availability of the four new indicators in the EC harmonised format would allow the calculation of harmonised consumer confidence indicators in OECD Non-EU Member and candidate countries. The coverage of the new EC components and differences from the standard of such indicators is set out in Table 5 below. The old EC components are included for reference purposes.

Table 5 Coverage of harmonised EC components in Old and New Consumer Confidence Indicator and differences from the standard of such indicators in OECD Non-EU Member and Candidate countries

Coverage of harmonised components	Countries with all components with harmonised format	Components not used in national indicator and format of harmonised components as available from national sources
New EC Confidence Indicator		
<i>2 of 4 EC components available</i>		
United States		Unemployment and savings
Australia		Unemployment and savings
New Zealand		Unemployment and savings
Switzerland		Unemployment and savings
South Africa		Unemployment and savings
<i>1 of 4 EC components available</i>		
Mexico		Financial situation, unemployment and savings
Japan		Financial situation, unemployment and savings F6, employment conditions
Korea		Financial situation, unemployment and savings F6, business conditions
China		Financial situation, unemployment and savings
Old EC Confidence Indicator		
<i>4 of 5 components available</i>		
United States		Business situation 5 years ahead
Australia		Business situation 5 years ahead
New Zealand		Business situation 5 years ahead
<i>3 of 5 available</i>		
Mexico		Financial situation, past and future and Business situation 5 years ahead
Switzerland		Business situation, future and buying conditions
China		
South Africa		Business and financial situation, past
<i>2 of 5 available</i>		
Korea		Business situation, past and financial situation, past and future F6, Business condition
<i>1 of 5 available</i>		
Japan		Business and financial situation, past and future
F6 = Future change for 6 months ahead		F12 = Future change for 12 months ahead

None of the nine OECD Non-EU Member and Candidate countries and Big 6 OECD Non-Member countries covers in their national confidence indicators all the harmonised indicators used for the calculation of the new EC consumer confidence indicator. Two of the four components included in the indicators for the United States, Australia, New Zealand, Switzerland and South Africa corresponds to the EC harmonised components. The national indicators in all these countries do not include the two EC harmonised components on unemployment and savings. These components may, however, be available in most of these countries and for those countries harmonised confidence indicators could be calculated.

For the remaining four countries investigated: Mexico, Japan, Korea and China, only one of the four components included in the national indicators correspond to the EC harmonised components. In addition, if the format of the questions is considered, this would affect one of the indicators in both Japan and Korea. The question on employment conditions in Japan and the question on business conditions in the case of Korea ask for expectations over the next 6 months and not the next 12 months as specified for the harmonised format

The old harmonised EC consumer confidence indicator calculated until mid 2001 included components more frequently used in countries outside the EU Member countries. Four of the five EC components are included in national confidence indicators in the United States, Australia and New Zealand. The fifth EC harmonised indicator on general economic conditions over the past 12 months is not included in above countries but the a question on business conditions for the next five years is covered in the national indicators. Three of the five EC components are also covered in the national indicators in Mexico, Switzerland, China and South Africa. Only the national indicators for Korea and Japan show a low coverage of the EC harmonised components.

Table 6 National Consumer Confidence Indicators

	Source	Periodicity	Unit	Adjustment	Reference period for components	Components and weights	Construction
United States	University of Michigan	M	Index 1995=100	sa	12 months ago 12 months ahead 12 months ahead 5 years ahead Present	Household finances Household finances Business situation Business situation Buying conditions	Simple average
Mexico	INEGI	M	Balance	nsa	12 months ago 12 months ahead 12 months ahead 5 years ahead Present	Household situation Household situation Economic situation Economic situation Buying conditions	Simple average
Australia	MIAESR	M	Normal=100	sa	12 months ago 12 months ahead 12 months ahead 5 years ahead Present	Household finances Household finances Business situation Business situation Buying conditions	Simple average
New Zealand	WPMM	M	Balance	nsa	12 months ago 12 months ahead 12 months ahead 5 years ahead Present	Household finances Household finances Business situation Business situation Buying conditions	Simple average
Japan	ESRI	Q	Balance	nsa	6 months ahead 6 months ahead 6 months ahead 6 months ahead Present	Living standard Income developments Price developments Employment conditions Buying conditions	Simple average
Korea.	KNSO	M	Balance	nsa	6 months ahead 6 months ahead 6 months ahead 6 months ahead 6 months ahead	Business conditions Living standard Household consumption Purchase durables Expenditure services	Weighted average
Switzerland	OFQC	Q	Balance	nsa	12 months ago 12 months ahead 12 months ago	Household finances Household finances Business situation	Simple average
China P.R.	NBS	M	Normal=100		12 months ahead 12 months ahead 12 months ago Present	Household situation Economic situation Economic situation Buying conditions	Simple average
South Africa	BER	Q	Balance	nsa	12 months ahead 12 months ahead Present	Business situation Household finance Buying conditions	Simple average

* Not published
sa=seasonally adjusted
nsa=not seasonally adjusted

III Business Confidence Indicators versus Consumer Confidence Indicators

One of the main uses of business and consumer confidence indicators is to monitor economic developments and in particular to predict changes in economic developments i.e. to predict cyclical turning points in economic activity. One would expect business executives to have better information about changes in economic activity than consumers who may be expected to have less knowledge to judge economic developments.. On the other hand, consumers would have a lot of information on other aspects of the economy.

Differences in societies and management cultures may, however, play important roles in how consumers and business executives are able to supply insight information on economic developments to business or consumer surveys. The formulation of the questions, their format and information content as well as the design and quality of the surveys will of course play an important role as well in explaining differences in survey results and their usefulness for monitoring economic developments.

The aim here is not to investigate in depth all aspects which may explain differences in survey results, but only to show some results that may lead to further investigations. This exercise is also an example on how access to survey data on an international level may generate new findings and stimulate further research.

National business confidence indicators for the industrial sector and consumer confidence indicators for seven countries from different continents are compared over time to see how well they resemble each other and if they show any difference in terms of timing at cyclical turning points. A simple correlation analysis is performed here, but a more in dept turning point analysis would be necessary to be more precise about timing relationships.

The Consumer confidence indicator published by the University of Michigan and the PMI business confidence index for manufacturing industry calculated by the Institute for Supply Management in the *United States* are plotted in Chart 11 over the period 1980-2003. The developments of the two indicators are not very synchronised even though major cyclical swings are picked up in both indicators. This is confirmed by a rather weak correlation between the two indicators with a peak-correlation coefficient of 0.54 at zero lag. Both indicators are seasonally adjusted but a lot of irregular variation is still affecting both of them.

The general business indicator “prospects for the industrial sector” and the national consumer confidence indicator both published by INSEE in *France* are shown in Chart 12 over the period 1986-2003. The developments over time of the two indicators are not very close and the cyclical amplitudes are rather different. This is shown in the correlation results which show a rather weak correlation with a peak-correlation coefficient of 0.60 at a lag of 4 months of the consumer confidence indicator. These results support the view that business executives are better than consumers in predicting changes in economic activity.

The Ifo “business climate” indicator for *Germany* and the EC consumer confidence indicator for *Germany* are plotted in Chart 13 over the period 1985-2003. The general developments of the two indicators are rather similar and major cyclical swings are well synchronised with a short time lag. This is confirmed by the correlation results with a peak-correlation of 0.71 at a 3 months lag of the consumer confidence indicator. These results are also in support of the view that business indicators are better than consumer confidence indicators in predicting cyclical developments in overall economic activity.

The indicator on the current business situation included in the business survey conducted by the Bank of Japan and the consumer sentiment indicator published by the Economic and Social Research

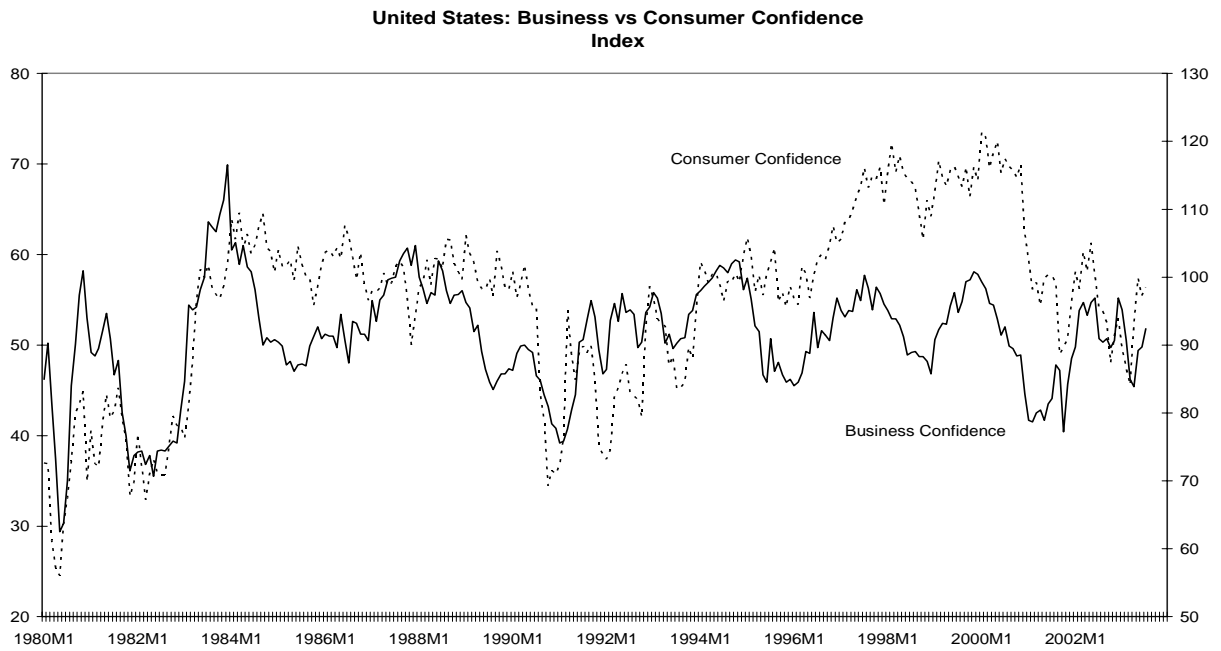
Institute in *Japan* are shown in Chart 14 over the period 1980-2003. The developments of the two indicators are rather close and cyclical swings are rather well synchronised. These observations are confirmed by the correlation results which show a peak correlation coefficient of 0.75 at a lag of 2 quarters for the indicator on business situation. These results contradict the general view that business executives would be better suited to predict changes in economic activity. One explanation for this could be differences in management cultures in Japan compared to the ones in Europe for example. Another possible explanation could be the difference in the composition of the indicators included in the consumer confidence indicator for Japan compared to the ones used in Europe, United States, Australia and New Zealand. A further difference between the Japanese confidence indicator and confidence indicators in most other countries is that the reference period for all change questions is 6 months and not 12 months as in other countries.

The indicator business situation prospects included in the business survey conducted by the New Zealand Institute of Economic Research and the consumer confidence indicator conducted by McDermott-Miller for the Westpac Banking Corporation for *New Zealand* are plotted in Chart 15 over the period 1988-2003. The developments of the two indicators are not very close, but major cyclical swings are picked-up by both indicators. The correlation results confirm these observations by showing a peak-correlation coefficient of 0.45 at a lag of 1 quarter of the consumer confidence indicator. These results are also in support of the view that business indicators are better than consumer confidence indicators in predicting cyclical developments in overall economic activity

The indicator on current business situation included in the business survey conducted by the Bureau of Economic Research and the consumer confidence indicator conducted by the same institute in *South Africa* are shown in Chart 16 over the period 1990-2003. The general developments of the two indicators are not very close, but major cyclical swings are picked-up in both indicators. The correlation results confirm these observations with a peak-correlation coefficient of 0.45 at zero lag.

The national general indicator on business confidence included in the business survey conducted by the Bank of Korea and the consumer confidence indicator published by the National Statistical Office of *Korea* are plotted in Chart 17 over the period 1996-2003. The developments of the two indicators are very close and cyclical swings are well synchronised. This is confirmed by the correlation results which show a peak-correlation coefficient of 0.91 at a lag of 2 quarter of the business confidence indicator. These results contradict, as in the case of Japan, the general view that business executives would be better suited to predict changes in economic activity. The explanations put forward for Japan are also valid for Korea with the same management culture as Japan and the same survey design.

Chart 11



Cart 12

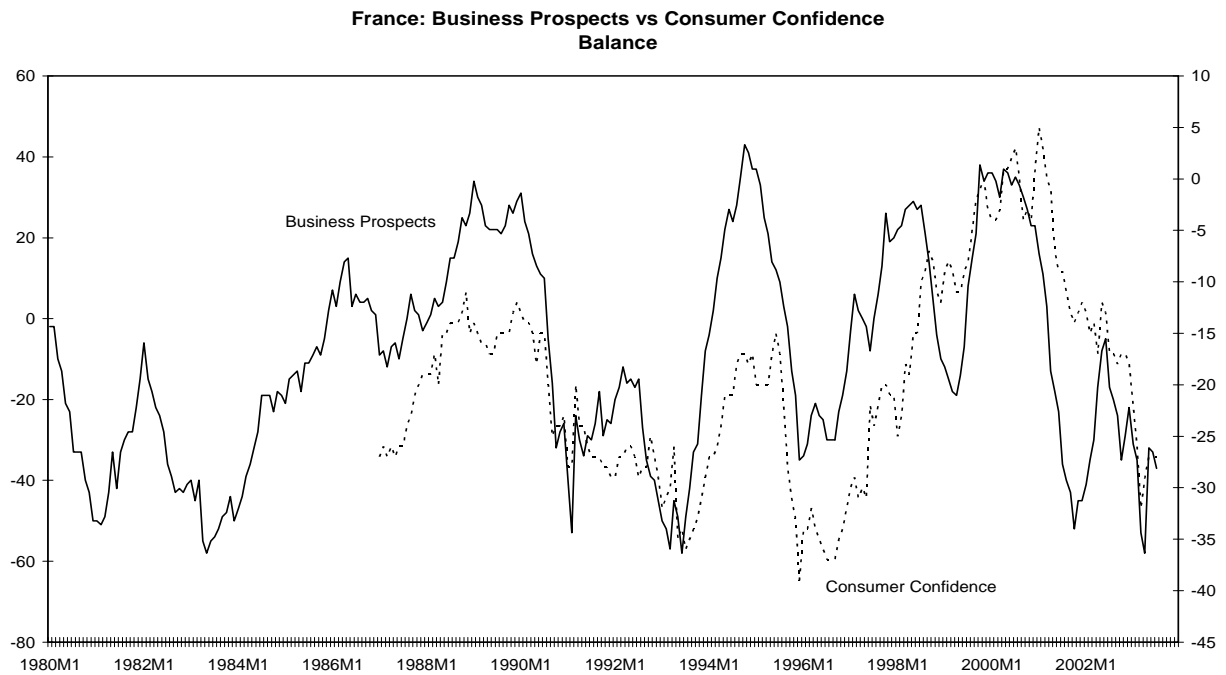


Chart 13

Germany: Business Climate vs Consumer Confidence Index and Balance

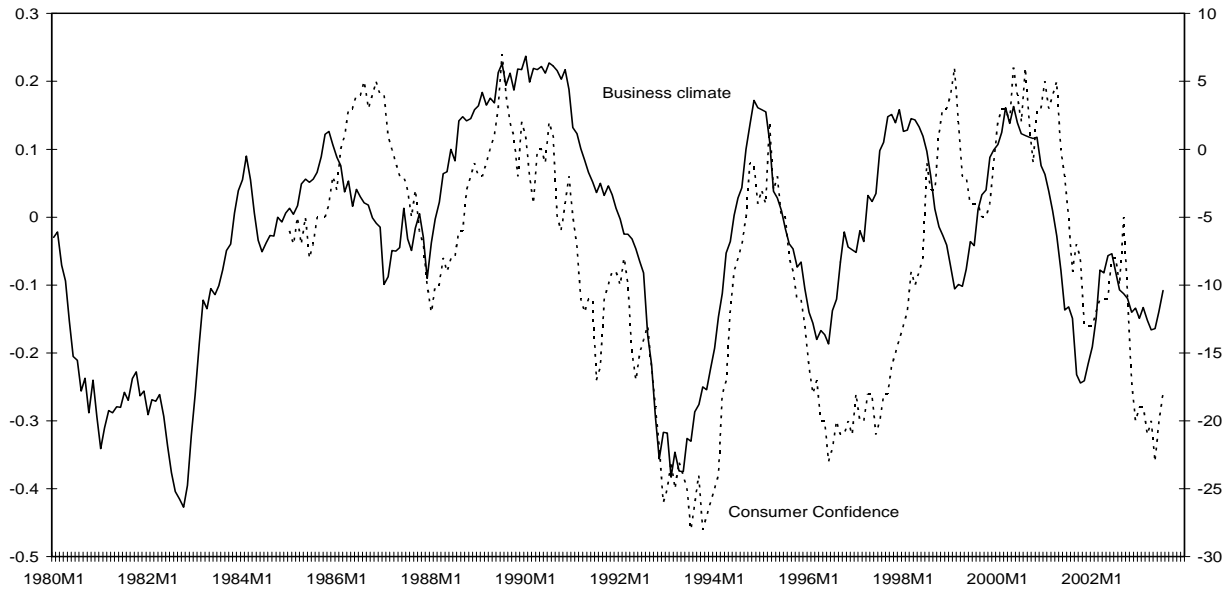


Chart 14

Japan: Business situation vs Consumer Sentiment Balance and Index

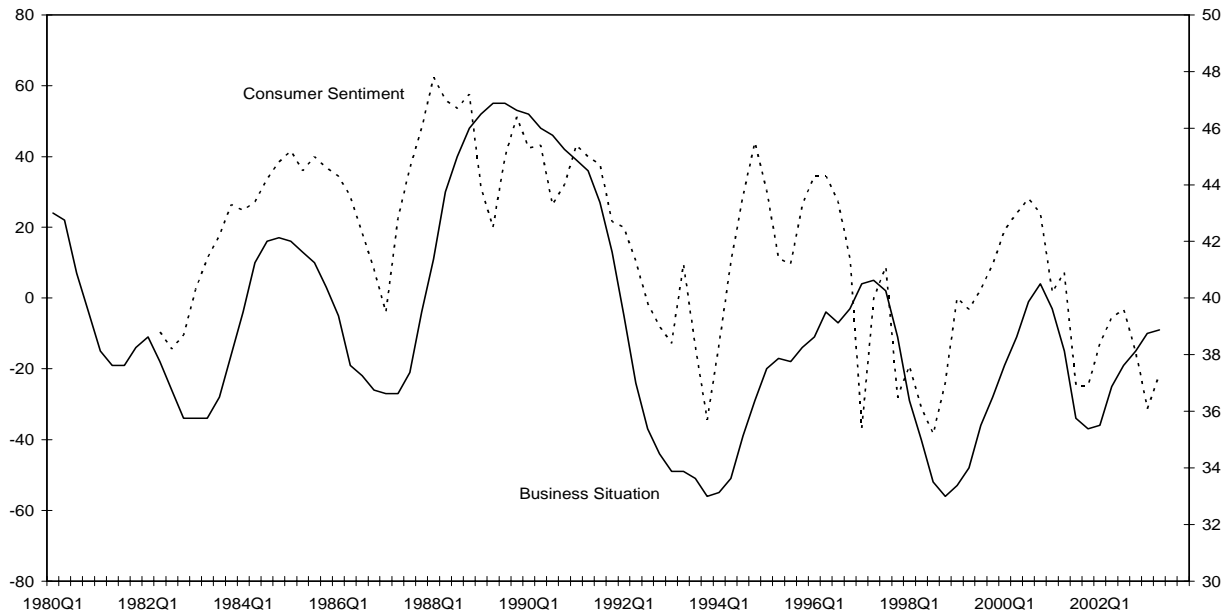


Chart 15

**New Zealand: Business Situation vs Consumer Confidence
Balance and Index**

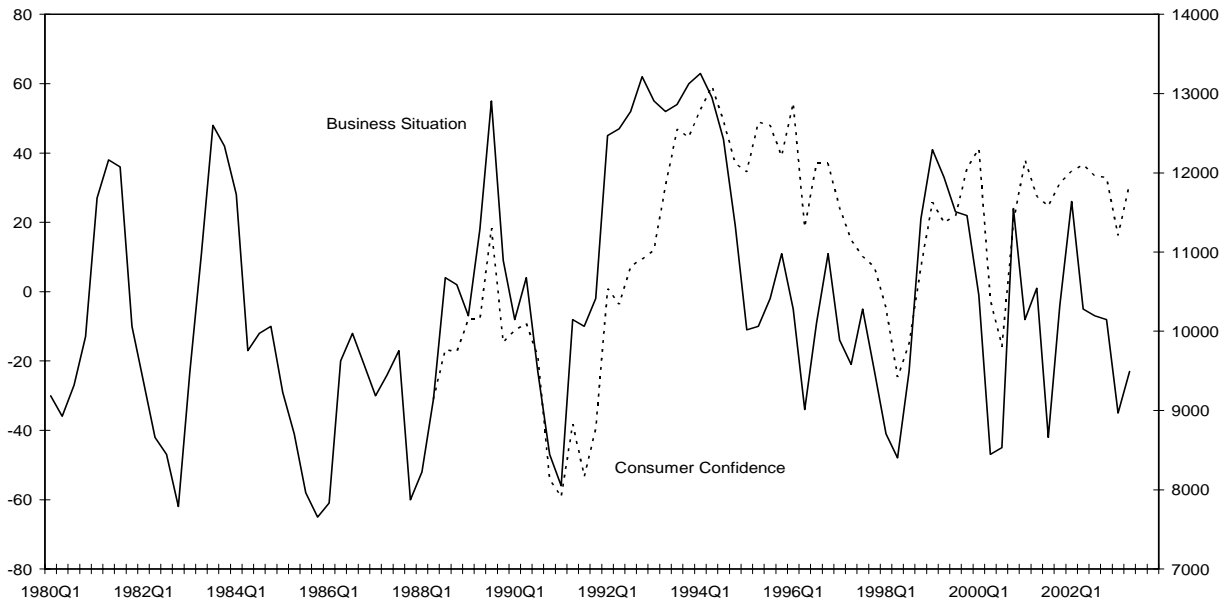


Chart 16

**South Africa: Business Situation vs Consumer Confidence
Balance**

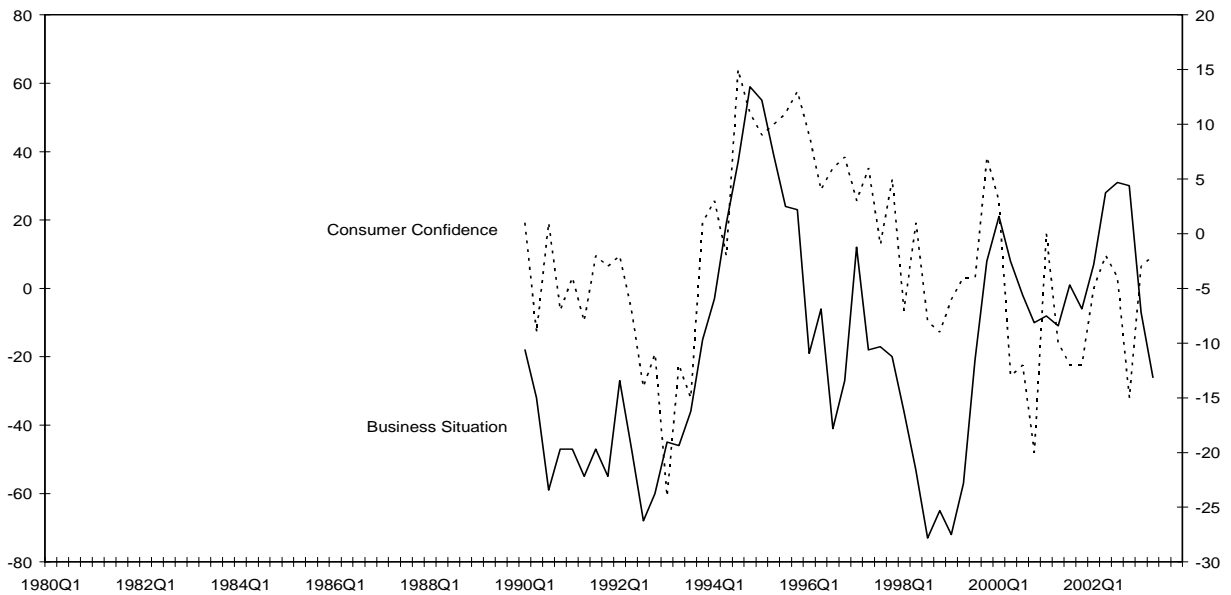
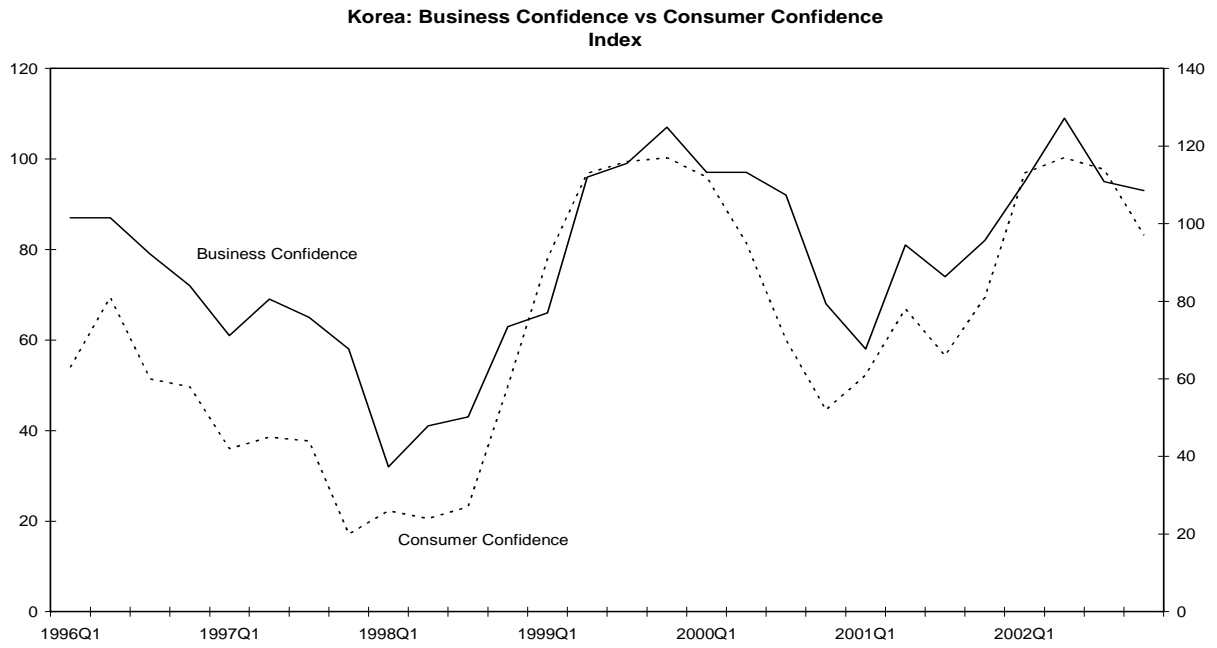


Chart 17



ANNEX 1

Component Series Used in the Compilation of OECD Composite Leading Indicators

Country	Components Total number	Business Tendency Survey Components		CCI	Other Components Quantitative components
		Business Tendency Survey series included in the EC industrial confidence indicator	Other business tendency survey series		
Canada	8	- Production: future tendency - Finished goods stocks: level		1 (USA)	- Deflated Money Supply M1 - Housing Starts - Spread of interest rates - Share prices (TSE 300) - Weekly hours of work
Mexico	7		- Employment : tendency - Production: tendency - Finished goods stocks: tendency		- Employment in manufacturing - Real effective exchange rate - CPP rate
United States	7		- Business climate	1	- US composite bonds (>10 yrs) - Dwellings started - Spread of interest rate - Weekly hours of work - Net new orders: durable gds - Share prices: NYSE
Australia	7		- Employment: tendency - Orders inflow: tendency - Production: tendency		- 10-yr treasury bond - Dwellings permits started - Share prices: all industrials - Terms of trade
Japan	7				- Dwellings started - Ratio imports to exports - Spread of interest rate - Ratio loans o deposits - Overtime hours - Ratio stocks to deliveries - Share prices: TOPIX
Norway	6		- Export orders inflow: tendency - Judgement on capacity utilisation		- Central Govt Bonds (6-10 yr) - Unfilled job vacancies - Retail sales total volume - Share price industrials
Switzerland	7	- Finished goods stocks: level	- Orders inflow: tendency - Production: tendency		- Deflated money supply (M1) - Yield of Confederation bonds >5 yr - Unfilled job vacancies - Share prices : UBS-100
Turkey		- Finished goods stocks: level	- Employment: Future tendency - New orders domestic market: tendency - Prospects for exports		- Import of intermediate goods - Discounted treasury auction - Production amount of electricity
Austria	6	- Production: future tendency - Order books: level	- IFO business climate	1	- Spread of interest rates - Unfilled job vacancies
Belgium	6		- Demand: future tendency - Employment: future tendency - Exports orders inflow :tendency - Production: tendency	1	- New car registrations
Denmark	8	Production: future tendency	- Employment: future tendency	1	- Money Supply deflated - New car registrations - Volume of retail sales - Petrol exports deflated - Official discount rate
Finland	9		- Firms expecting equipment bottleneck - Production: tendency - Order books: tendency	1	- CPI: all items - Spread of interest rate - PPI: all items - Share prices: HEX - Volume of exports paper products
France	10	- Production: future tendency - Finished goods stocks: level	- Prospects for industrial sector	1	- New car registrations - Call money rate (EONIA) - Spread of interest rate - New job vacancies - share prices: SBF 250 - Terms of trade

Component Series Used in the Compilation of OECD Composite Leading Indicators

Country	Comp- onents Total number	Business Tendency Survey Components		CCI	Other Components Quantitative components
		Business Tendency Survey series included in the EC industrial confidence indicator	Other business tendency survey series		
Germany	6	- Finished goods stocks: level	- Business climate - Orders inflow: tendency - Export order books: level		- Spread of interest rate - Total new orders
Greece	9	- Production: future tendency	- Sales: future tendency - Export order books: level		- Total liquidity M4 - Cost of residential construction - Bank credit to mfg sector - Building permits issued - Vol. retail sales: clothes and footwear - Wholesale prices: all items
Ireland	8	- Finished goods stocks: level - Order books: level	- Employment: tendency	1	- Spread of interest rate - Retail sales: total volume - Share prices: ISEQ - Terms of trade
Italy	6	- Production: future tendency	- Order books: future tendency	1	- 3 month interbank rate (EURIBOR) - Net new orders - Terms of trade - Share prices
Netherlands	6	- Production: future tendency - Finished goods stocks: level - Order books: level	- IFO business climate - Orders inflow: tendency		
Portugal	6	- Production: future tendency - Order books: level	- Export order books: level		- Production of elect., gas and water - Unfilled job vacancies - Share prices
Spain	5	- Production: future tendency - Finished goods stocks: level	- Order books: future tendency		- Long-term government bonds - Nights in hotel
Sweden	9	- Finished goods stocks: level - Order books: level	- Export orders inflow: tendency - Purchase price raw materials: tendency		- Yield on 5 year government bonds - Notices of layoffs - Overtime hours worked - Net new orders
United Kingdom	7	- Production: future tendency	- Stocks raw materials: future tendency - Prospects for exports (1yr)	1	- Share prices: AFGX - New car registrations - 3mth Prime bank bills - Share prices: FTSE