OECD Composite Leading Indicators: Turning Points of Reference Series and Component Series

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<tr>
<th>OECD Countries</th>
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<th>OECD Countries</th>
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<td>Switzerland</td>
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<td>Greece</td>
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<td>New Zealand</td>
<td>United Kingdom</td>
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<td>Iceland</td>
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<td>United States</td>
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<td>Chile</td>
<td>Ireland</td>
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<td>Czech Republic</td>
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<td>Finland</td>
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<td>France</td>
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<table>
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<tr>
<th>Non-member economies</th>
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<th>Area</th>
<th>Area</th>
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<td>OECD + non-member economies</td>
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<td>China</td>
<td>OECD Europe</td>
<td>Major seven countries</td>
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<td>India</td>
<td>Euro area</td>
<td>OECD Europe</td>
<td></td>
</tr>
<tr>
<td>Indonesia</td>
<td>Four big European countries</td>
<td>Major seven countries</td>
<td></td>
</tr>
<tr>
<td>Russian Federation</td>
<td>NAFTA</td>
<td>Major seven countries</td>
<td></td>
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<tr>
<td>South Africa</td>
<td>Major five Asia countries</td>
<td>OECD Europe</td>
<td></td>
</tr>
</tbody>
</table>
Australia

**Component Series (Unit)**

- Permits issued for dwellings sa (number)
- Manufacturing - Orders inflow: tendency sa (% balance)
- Manufacturing - Production: tendency sa (% balance)
- Manufacturing - Employment: tendency sa (% balance)
- Share prices: S&P/ASX 200 index (2015=100)
- Terms of trade
- Yield 10-year commonwealth government bonds (% p.a.) *inverted*

**Source**

- Australian Bureau of Statistics (ABS)
- ACCI Westpack
- ACCI Westpack
- ACCI Westpack
- Reserve Bank of Australia
- Australian Bureau of Statistics (ABS)
- Reserve Bank of Australia

**Reference chronology of turning points**

Austria

**Component Series (Unit)**

<table>
<thead>
<tr>
<th>Component</th>
<th>Source</th>
</tr>
</thead>
<tbody>
<tr>
<td>Manufacturing - Production: future tendency sa (% balance)</td>
<td>European Commission</td>
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<tr>
<td>Manufacturing - Order books: level sa (% balance)</td>
<td>European Commission</td>
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<tr>
<td>Manufacturing - Business situation of Germany: present sa (normal=100)</td>
<td>IFO Institute, Germany</td>
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<tr>
<td>Consumer - Confidence indicator sa (% balance)</td>
<td>European Commission</td>
</tr>
<tr>
<td>Job vacancies: unfilled sa (persons)</td>
<td>European Commission</td>
</tr>
<tr>
<td>Spread of interest rates (% p.a.)</td>
<td>European Central Bank</td>
</tr>
</tbody>
</table>

**Reference chronology of turning points**

Belgium

**Component Series (Unit)**

- Passenger car registrations sa (number)
- Manufacturing - Employment: future tendency sa (% balance)
- Manufacturing - Export orders inflow: tendency sa (% balance)
- Manufacturing - Demand: future tendency sa (% balance)
- Manufacturing - Production: tendency sa (% balance)
- Consumer - Confidence indicator sa (% balance)

**Source**

- European Automobile Manufacturers’ Association
- European Commission
- National Bank of Belgium
- European Commission
- European Commission

**Reference chronology of turning points**

Canada

**Component Series (Unit)**

- Deflated Monetary aggregate M1 sa (2010 cad)
- Manufacturing - Industrial confidence indicator (USA - PMI) sa
- Consumer - Confidence indicator (2015=100)
- Spread of interest rates (% p.a.)
- Ratio of inventories to shipments *inverted*
- Share prices: S&P/TSX composite index (2015=100)

**Source**

- Statistics Canada
- Institute of Supply Management USA
- Conference Board Canada
- Statistics Canada
- Statistics Canada
- Statistics Canada

**Reference chronology of turning points**

Chile

**Component Series (Unit)**

- Production in total mining sa index (2015=100)
- Retail trade - Confidence indicator sa (% balance)
- Manufacturing - Production: tendency sa (% balance)
- Monetary aggregate M1 sa (CLP)
- Share prices: IPSA index (2015=100)
- IITS Net trade (f.o.b. - c.i.f.) sa (CLP)

**Source**

- National Statistical Institute of Chile
- ICARE
- ICARE
- Central Bank of Chile
- Santiago Stock Exchange
- Central Bank of Chile

**Reference chronology of turning points**

Czech Republic

**Component Series (Unit)**
- BOP Capital account, debit (czk)
- Services - Demand evolution: future tendency sa (% balance)
- Manufacturing - Production: tendency sa (%)
- CPI HICP All items (2015=100) *inverted*
- Consumer - Confidence indicator sa (% balance)
- ITS Exports f.o.b. total sa (czk)
- Share prices: PX-50 index (2015=100)

**Source**
- Czech National Bank
- European Commission
- Czech Statistical Office

**Reference chronology of turning points**
- Peak 2011M5, Trough 2013M6, Peak 2015M9, Trough 2016M9
Denmark

Component Series (Unit)

<table>
<thead>
<tr>
<th>Component Series (Unit)</th>
<th>Source</th>
</tr>
</thead>
<tbody>
<tr>
<td>Total retail trade (Volume) sa (2015=100)</td>
<td>Statistics Denmark</td>
</tr>
<tr>
<td>Passenger car registrations sa (number)</td>
<td>Statistics Denmark</td>
</tr>
<tr>
<td>Manufacturing - Employment: future tendency sa (% balance)</td>
<td>European Commission</td>
</tr>
<tr>
<td>Manufacturing - Production: future tendency sa (% balance)</td>
<td>European Commission</td>
</tr>
<tr>
<td>Central bank official discount rate (% per annum) <em>inverted</em></td>
<td>National Bank of Denmark</td>
</tr>
<tr>
<td>Deflated monetary aggregate M1 (dkk)</td>
<td>National Bank of Denmark</td>
</tr>
<tr>
<td>ITS Mineral fuels, lubricants and related materials exports deflated CPI energy sa (dkk)</td>
<td>Statistics Denmark</td>
</tr>
<tr>
<td>Consumer - Confidence indicator sa (% balance)</td>
<td>European Commission</td>
</tr>
</tbody>
</table>

Reference chronology of turning points

Estonia

Component Series (Unit)

- Manufacturing - Export order books: level sa (% balance)
- Total retail trade (Value) sa (2015=100)
- Passenger car registrations sa (2015=100)
- CPI Food excl. Restaurants (2015=100) inverted
- Share prices: OMX Tallin index (2015=100)
- ITS Net trade (f.o.b. - c.i.f.) sa (Eur)

Source

- European Commission
- Eurostat
- European Automobile Manufacturers' Association
- Statistics Estonia
- NASDAQ OMX Baltic
- Eurostat

Reference chronology of turning points

Trough 2009M9, Peak 2012M11, Trough 2016M6, Peak 2018M11
Finland

**Component Series (Unit)**

- CPI All items (2015=100) *inverted*
- Consumer - Confidence indicator sa (% balance)
- Spread of interest rates (% p.a.)
- Manufacturing - Production: tendency sa (% balance)
- Domestic PPI Industrial activities (2015=100)
- Manufacturing - Finished goods stocks: level sa (% balance) *inverted*
- Share prices: OMXH index (2015=100)
- Services – Demand evolution: future tendency (% balance)

**Source**

- Statistics Finland
- European Commission
- European Central Bank
- European Commission
- Statistics Finland
- European Commission
- Bank of Finland
- European Commission

**Reference chronology of turning points**

## France

### Component Series (Unit)
- Passenger car registrations sa (number)
- Consumer - Confidence indicator sa (% balance)
- Manufacturing - Production: future tendency sa (% balance)
- Share prices: CAC All-tradable index (2015=100)
- CPI HICP All items (2015=100) *inverted*
- Manufacturing - Export order books: level sa (% balance)
- Construction - Selling prices: future tendency sa (% balance)
- Permits issued for dwellings sa (2015=100)

### Source
- INSEE
- European Commission
- Bank of France
- Eurostat
- European Commission
- INSEE

### Reference chronology of turning points

<table>
<thead>
<tr>
<th>Trough</th>
<th>Peak</th>
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<tbody>
<tr>
<td>1960M12</td>
<td>1963M10</td>
</tr>
<tr>
<td>1968M5</td>
<td>1971M10</td>
</tr>
<tr>
<td>1972M7</td>
<td>1974M2</td>
</tr>
<tr>
<td>1975M7</td>
<td>1979M12</td>
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<tr>
<td>1981M2</td>
<td>1982M5</td>
</tr>
<tr>
<td>1983M10</td>
<td>1983M10</td>
</tr>
<tr>
<td>1986M5</td>
<td>1987M3</td>
</tr>
<tr>
<td>1990M1</td>
<td>1993M10</td>
</tr>
<tr>
<td>1995M2</td>
<td>1997M2</td>
</tr>
<tr>
<td>2000M11</td>
<td>2003M6</td>
</tr>
<tr>
<td>2008M1</td>
<td>2009M6</td>
</tr>
<tr>
<td>2011M9</td>
<td>2013M2</td>
</tr>
<tr>
<td>2014M9</td>
<td>2016M8</td>
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<tr>
<td>2017M12</td>
<td></td>
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</tbody>
</table>
## Germany

### Component Series (Unit)

<table>
<thead>
<tr>
<th>Series</th>
<th>Source</th>
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</thead>
<tbody>
<tr>
<td>IFO business climate indicator (normal=100)</td>
<td>IFO Institute for Economic Research</td>
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<tr>
<td>Orders inflow/demand (manuf.): tendency (% balance)</td>
<td>IFO Institute for Economic Research</td>
</tr>
<tr>
<td>Export order books (manuf.): expectation (% balance)</td>
<td>IFO Institute for Economic Research</td>
</tr>
<tr>
<td>New orders in manuf. industry (2010 = 100)</td>
<td>DESTATIS Federal Statistical Office</td>
</tr>
<tr>
<td>Finished goods stocks (manuf.): level (% balance) inverted</td>
<td>European Commission</td>
</tr>
<tr>
<td>Spread of interest rates (% p.a.)</td>
<td>European Central Bank</td>
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<tr>
<td>Services – Demand evolution: future tendency (% balance)</td>
<td>European Commission</td>
</tr>
<tr>
<td>Consumer - Confidence indicator sa (% balance)</td>
<td>European Commission</td>
</tr>
</tbody>
</table>

### Reference chronology of turning points

Greece

Component Series (Unit)

Cost of construction: residential (materials) (2015=100) inverted
Bank credit to the manufacturing sector deflated sa (euro 2001)
Services - Employment: future tendency sa (% balance)
Manufacturing - Production: future tendency sa (% balance)
Production of manufactured non-durable consumer goods sa (2015=100)
Total retail trade (Volume) sa (2015=100)
Retail trade - Volume of stocks: level sa (% balance) inverted
Domestic PPI Industrial activities (2015=100) inverted

Source

National Statistical Service of Greece
Bank of Greece
European Commission
National Statistical Service of Greece

Reference chronology of turning points

Component Series (Unit)

Manufacturing - Production: future tendency sa (% balance)
Registered unemployment: level (all persons) sa
Monthly hours worked: manufacturing sa (hours)
Monetary aggregate M1 sa (HUF)
Share prices: BUX index (2015=100)
Central bank base rate (% per annum)
ITS Imports c.i.f. total sa (HUF)

Source

European Commission
Hungarian Central Statistical Office
Hungarian Central Statistical Office
Bank of Hungary
Bank of Hungary
Bank of Hungary
Hungarian Central Statistical Office

Reference chronology of turning points

Trough 2009M6, Peak 2011M9, Trough 2012M12, Peak 2015M3, Trough 2016M10
Iceland

**Component Series (Unit)**
- Cement sales index
- Current economic situation
- CPI HICP All items
- Spread of interest
- Passengers cars registration sa
- ICEX Main share price index
- Passengers through Keflavik

**Source**
- Statistics Iceland
- Statistics Iceland
- Statistics Iceland
- Central Bank of Iceland
- Statistics Iceland
- http://www.nasdaqomxnordic.com/indexes
- Statistics Iceland

**Reference chronology of turning points**

## Ireland

### Component Series (Unit)

<table>
<thead>
<tr>
<th>Source</th>
<th>Component Series (Unit)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Central Statistics Office Ireland</td>
<td>Exports to Northern Ireland sa (EUR)</td>
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<tr>
<td>Central Statistics Office Ireland</td>
<td>Exports of agricultural products to other Euro sa (EUR)</td>
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<tr>
<td>Central Statistics Office Ireland</td>
<td>Passenger car registrations sa (2015=100)</td>
</tr>
<tr>
<td>Central Statistics Office Ireland</td>
<td>Total PPI Mining and quarrying activities (2015=100)</td>
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<tr>
<td>Eurostat</td>
<td>Share prices: ISEQ index (2015=100)</td>
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<tr>
<td>Central Bank of Ireland</td>
<td>Real effective exchange rates - CPI Based (2015=100) inverted</td>
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<tr>
<td>Central Statistics Office Ireland</td>
<td>Money supply M2 to Euro area (EUR)</td>
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### Reference chronology of turning points

Israel

**Component Series (Unit)**

Manufacturing - Production: future tendency sa (% balance)  
Total retail trade (Volume) sa (2015=100)  
Domestic PPI Manufacturing (2015=100)  
Share prices: TA 100 index (2015=100)  
Total Departures Of Israelis sa (number)  
Exports of manufactures diamonds prices 2010 (USD)

**Source**

Bank of Israel  
Central Bureau of Statistics  
Central Bureau of Statistics  
Tel-Aviv Stock Exchange  
Bank of Israel  
Bank of Israel

**Reference chronology of turning points**

Italy

Component Series (Unit)

<table>
<thead>
<tr>
<th>Component</th>
<th>Source</th>
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<tbody>
<tr>
<td>Consumer - Confidence indicator sa (% balance)</td>
<td>European Commission</td>
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<tr>
<td>Manufacturing - Order books: level sa (% balance)</td>
<td>European Commission</td>
</tr>
<tr>
<td>Deflated orders for total manufactured goods (Value) sa (2010 = 100)</td>
<td>ISTAT</td>
</tr>
<tr>
<td>Manufacturing - Production: future tendency sa (% balance)</td>
<td>European Commission</td>
</tr>
<tr>
<td>CPI All items (2010=10) inverted</td>
<td>ISTAT</td>
</tr>
<tr>
<td>Imports from Germany c.i.f. (USD)</td>
<td>ISTAT</td>
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OECD Composite Leading Indicators
http://www.oecd.org/std/leading-indicators/
Japan

**Component Series (Unit)**

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<th>Series</th>
<th>Description</th>
<th>Source</th>
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<td>Ratio of inventories to shipments sa (2015=100)</td>
<td>inverted</td>
<td>Statistics Japan</td>
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<tr>
<td>ITS Volume of imports/volume of exports sa (2015=100)</td>
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<td></td>
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<tr>
<td>Ratio loans to deposits sa (%)</td>
<td>inverted</td>
<td>Japan Customs</td>
</tr>
<tr>
<td>Monthly hours worked: manufacturing sa (2015=100)</td>
<td></td>
<td>Bank of Japan</td>
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<td>Work started for dwellings sa (2015=100)</td>
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<td>Ministry of Construction</td>
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<td>Share prices: TOPIX index (2015=100)</td>
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<td>Bank of Japan</td>
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<td>Spread of interest rates (% p.a.)</td>
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<td>Bank of Japan</td>
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<tr>
<td>Small Business Survey: Sales tendency (% balance)</td>
<td></td>
<td>Japan Finance Corporation for SMSE</td>
</tr>
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</table>

**Reference chronology of turning points**

Korea

**Component Series (Unit)**

- Manufacturing - Business situation: future (% balance)
- Share prices: KOSPI index (2010 = 100)
- Stocks of manufactured investment goods (volume) sa *inverted*
- Inventory circulation indicator (manufacturing)
- Spread of interest rates (% p.a.)
- Net Barter Terms of trade (2015=100)

**Source**

- Bank of Korea
- Bank of Korea
- National Statistical Office
- National Statistical Office
- National Statistical Office

**Reference chronology of turning points**

- Trough 1962M6, Peak 1964M12, Trough 1965M9, Peak 1969M9, Trough 1972M6, Peak 1973M12,
- Trough 1975M2, Peak 1979M3, Trough 1980M12, Peak 1984M4, Trough 1986M1, Peak 1988M2,
- Trough 2001M4, Peak 2002M8, Trough 2005M1, Peak 2008M1, Trough 2009M3, Peak 2011M1,
- Trough 2012M12, Peak 2014M2, Trough 2015M4, Peak 2017M8
Luxembourg

Component Series (Unit)

<table>
<thead>
<tr>
<th>OECD CLI for Germany (trend restored)</th>
<th>OECD CLI for Belgium (trend restored)</th>
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</thead>
<tbody>
<tr>
<td>Source</td>
<td>Source</td>
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<tr>
<td>OECD</td>
<td>OECD</td>
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</table>

Reference chronology of turning points

Mexico

**Component Series (Unit)**

- Employees - Manufacturing (D) sa (%)
- Manufacturing - Employment: tendency sa (% balance)
- Manufacturing - Finished goods: tendency sa (% balance) *inverted*
- Manufacturing - Production: tendency sa (% balance)
- Yield >10-year US fed. Gov. securities (% p.a.). *inverted*
- CPP Rate (% p.a.) *inverted*
- Real effective exchange rates - CPI Based (2015=100)

**Source**

- INEGI
- Bank of Mexico
- Bank of Mexico
- US Treasury Department USA
- Bank of Mexico
- OECD

**Reference chronology of turning points**

Netherlands

Component Series (Unit)

Manufacturing - Order books: level sa (% balance)
Manufacturing - Production: future tendency sa (% balance)
Manufacturing - Finished goods stocks: level sa (% balance) inverted
Manufacturing - Business situation of Germany: present sa (normal=100)
Services – Demand evolution: future tendency (% balance)
Consumer - Confidence indicator sa (% balance)
Share prices: AEX index (2015=100)

Source

European Commission
European Commission
IFO Institute Germany
European Commission
European Commission
Statistics Netherlands

Reference chronology of turning points

Trough 1961M9, Peak 1965M1, Trough 1967M6, Peak 1970M12, Trough 1972M8, Peak 1974M5,
Trough 1975M4, Peak 1976M8, Trough 1977M5, Peak 1979M11, Trough 1982M12, Peak 1986M5,
2015M3, Trough 2015M12, Peak 2018M3
New Zealand

**Component Series (Unit)**

Manufacturing - Business situation: future sa (% balance)  
Consumer - Confidence indicator sa (% balance)  
Total retail trade (Value) sa (NZD)  
Short term unemployment sa (persons) *inverted*  
Monetary aggregate M1 sa (2015=100)  
Yield of 90-day bank bills (% p.a.) *inverted*

**Source**

New Zealand Inst. Economic Research  
Westpac Banking Corporation N.Z.  
Statistics New Zealand  
Department of Labour N. Z.  
Reserve Bank N. Z.

**Reference chronology of turning points**

Trough 1998M6, Peak 2000M2, Trough 2001M2, Peak 2004M3, Trough 2005M1, Peak 2007M9,  
Trough 2009M2, Peak 2010M3, Trough 2013M10, Peak 2017M10
Norway

Component Series (Unit)

- Exports to UK (USD)
- Manufacturing, mining and quarrying - Stocks of orders for export (SA) (% balance)
- Manufacturing - Production: tendency (SA) (% balance)
- Manufacturing, mining and quarrying - General judgment of the outlook for the enterprise in next quarter (SA) (% balance)
- CPI All items (2015=100)
- Share prices: OSE20Gl index (2015=100)

Source

- UN – Comtrade database
- Statistics Norway
- Statistics Norway
- Statistics Norway
- Oslo Børs

Reference chronology of turning points

Poland

Component Series (Unit)                      Source
Real effective exchange rates - CPI Based (2015=100) inverted  OECD
3-month WIBOR (% per annum) inverted                 Bank of Poland
Manufacturing - Production: tendency sa (% balance)   European Commission
Job vacancies: unfilled sa (number)                  Central Statistical Office
Production of coal (tonnes)                         Central Statistical Office

Reference chronology of turning points

Peak 1998M1, Trough 1999M1, Peak 2000M11, Trough 2003M1, Peak 2004M3, Trough 2005M5,
2018M7, Trough 2019M5
Portugal

**Component Series (Unit)**

<table>
<thead>
<tr>
<th>Series</th>
<th>Source</th>
</tr>
</thead>
<tbody>
<tr>
<td>Industrial production: electricity, gas &amp; water (2015=100)</td>
<td>INE</td>
</tr>
<tr>
<td>Manufacturing - Production: future tendency sa (% balance)</td>
<td>European Commission</td>
</tr>
<tr>
<td>Manufacturing - Order books: level sa (% balance)</td>
<td>INE</td>
</tr>
<tr>
<td>Manufacturing - Export order books: level sa (% balance)</td>
<td>European Commission</td>
</tr>
<tr>
<td>Share prices: PSI-20 index (2015=100)</td>
<td>Lisbon Stock Exchange</td>
</tr>
<tr>
<td>Job vacancies: unfilled sa (number)</td>
<td>INE</td>
</tr>
<tr>
<td>Services – Demand evolution: future tendency (% balance)</td>
<td>European Commission</td>
</tr>
</tbody>
</table>

**Reference chronology of turning points**

Slovak Republic

Component Series (Unit)
Retail trade - Confidence indicator sa (% balance)
Total retail trade (Volume) sa (2015=100)
Consumers - Expected economic situation sa (% balance)
Share prices: SAX index (2015=100)
ITS Imports c.i.f. total sa (USD)

Source
European Commission
Eurostat
European Commission
Bratislava Stock Exchange
Eurostat

Reference chronology of turning points
Trough 1993M9, Peak 1997M7, Trough 1999M12, Peak 2003M3, Trough 2004M5, Peak 2007M12,
Trough 2009M5, Peak 2012M1, Trough 2013M9, Peak 2015M9, Trough 2016M12, Peak 2018M8
Slovenia

Component Series (Unit)

IP Manufacture Basic Metals $a (2015=100)$
Manufacturing - Order books: level $a$ (% balance)
Manufacturing - Production: tendency $a$ (% balance)
CPI All items (2015=100) inverted
EUR/USD exchange rate monthly average (%)
Consumers - Expected economic situation $a$ (% balance)

Source

Statistical Office of the Republic of Slovenia
European Commission
European Commission
Statistical Office of the Republic of Slovenia
OECD
European Commission

Reference chronology of turning points

Spain

**Component Series (Unit)**

- Manufacturing - Rate of capacity utilization sa (% balance)
- Construction - Employment: future tendency sa (% balance)
- CPI Services less housing (2015=100) *inverted*
- Share prices: IGBM general index (2015=100)
- Passenger car registrations (2015=100)

- Consumer - Confidence indicator sa (% balance)

**Source**

- European Commission
- European Commission
- Instituto Nacional de Estadística
- Bank of Spain
- Asociación Española de Fabricantes de Automóviles y Camiones
- European Commission

**Reference chronology of turning points**

# Sweden

## Component Series (Unit)

<table>
<thead>
<tr>
<th>Series</th>
<th>Source</th>
</tr>
</thead>
<tbody>
<tr>
<td>Yield 5-year government bonds (% p.a.) inverted</td>
<td>Bank of Sweden</td>
</tr>
<tr>
<td>Overtime hours worked mining &amp; manuf. (%)</td>
<td>Statistics Sweden</td>
</tr>
<tr>
<td>Orders for total manufactured goods (Volume) sa (2015=100)</td>
<td>Statistics Sweden</td>
</tr>
<tr>
<td>Order books (manuf.): level (% balance)</td>
<td>European Commission</td>
</tr>
<tr>
<td>Manufacturing - Finished goods stocks: level sa (% balance) inverted</td>
<td>European Commission</td>
</tr>
<tr>
<td>Services – Demand evolution: future tendency (% balance)</td>
<td>European Commission</td>
</tr>
<tr>
<td>Consumer - Confidence indicator sa (% balance)</td>
<td>Bank of Sweden</td>
</tr>
<tr>
<td>Share prices: OMXS30 index (2015=100)</td>
<td>Bank of Sweden</td>
</tr>
</tbody>
</table>

## Reference chronology of turning points

## Switzerland

### Component Series (Unit)

<table>
<thead>
<tr>
<th>Source</th>
<th>Description</th>
</tr>
</thead>
</table>
| Swiss Economic Institute KOF/ETH | Manufacturing - Finished goods stocks: level (% balance) 
inverted |
| Swiss Economic Institute KOF/ETH | Manufacturing - Orders inflow: tendency sa (% balance) |
| Swiss Economic Institute KOF/ETH | Manufacturing - Production: future tendency sa (% balance) |
| Swiss Economic Institute KOF/ETH | Share prices: UBS-100 index (2015=100) |
| Swiss Exchange | Consumer - Expected economic situation sa (% balance) |
| Swiss National Bank | Silver prices (CHF/kJ) |

### Reference chronology of turning points

Turkey

**Component Series (Unit)**

- Production of electricity sa (GW hours)
- Manufacturing - Finished goods stocks: level sa (% balance) *inverted*
- New domestic orders: tendency sa (% balance)
- Manufacturing - Employment: future tendency sa (% balance)
- Prospects for exports (manuf.) (% balance)
- Discounted treasury auction interest rate (% p.a.) *inverted*
- ITS Import c.i.f. of intermediate goods sa (USD)
- Services – Demand evolution: future tendency (% balance)

**Source**

- State Institute of Statistics
- Bank of Turkey
- Bank of Turkey
- Bank of Turkey
- Bank of Turkey
- State Institute of Statistics
- European Commission

**Reference chronology of turning points**

United Kingdom

**Component Series (Unit)**

- Services – Demand evolution: future tendency (% balance)
- Passenger car registrations sa (number)
- Consumer - Confidence indicator sa (% balance)
- Great British Pound Interbank LIBOR 3 Months Delayed (% p.a.) *inverted*
- Manufacturing - Production: future tendency sa (% balance)
- Share prices: FTSE LOCAL UK (£) index (2015=100)

**Source**

- European Commission
- Society of Motor Manufacturers and Traders
- European Commission
- Bank of England
- European Commission
- London Stock Exchange

**Reference chronology of turning points**

United States

**Component Series (Unit)**

Work started for dwellings sa (number)
Net new orders - durable goods sa (USD)
Share prices: NYSE composite (2015=100)

Consumer - Confidence indicator sa (normal = 100)

Weekly hours worked: manufacturing sa (hours)
Manufacturing - Industrial confidence indicator (% balance)
Spread of interest rates (% p.a.)

**Source**

Bureau of the Census
Bureau of the Census
New York Stock Exchange
[https://www.nyse.com/quote/index/NYA](https://www.nyse.com/quote/index/NYA)
Survey of consumers – Thomson Reuters / University of Michigan
Bureau of Labor Statistics
Institute of Supply Management
Federal Reserve

**Reference chronology of turning points**

Brazil

Component Series (Unit)

Share prices: BOVESPA - Total return index (2015=100)
Manufacturing - Production: future tendency sa (% balance)
Manufacturing - Order books: level sa (% balance)
Central Bank Policy rate (EOP) (% p.a.) inverted
Services – Demand evolution: future tendency (% balance)
ITS Net trade (f.o.b.-f.o.b.) with EU (USD)

Source

Brazil Yahoo Finance and IMF
Fundação Getulio Vargas, Brazil
IMF
Fundação Getulio Vargas, Brazil
Ministry of Development, Industry and Foreign Trade, Brazil

Reference chronology of turning points

Peak 1997M9, Trough 1999M5, Peak 2000M12, Trough 2003M7, Peak 2004M9, Trough 2006M6,
China

**Component Series (Unit)**

<table>
<thead>
<tr>
<th>Source</th>
</tr>
</thead>
<tbody>
<tr>
<td>IP Production of chemical fertilizer sa (tonnes)</td>
</tr>
<tr>
<td>National Bureau of Statistics</td>
</tr>
<tr>
<td>IP Production of manufactured crude steel sa (tonnes)</td>
</tr>
<tr>
<td>World Steel Association</td>
</tr>
<tr>
<td>5000 Industrial Enterprises: Diffusion Index: Overseas order level (%)</td>
</tr>
<tr>
<td>People’s Bank of China</td>
</tr>
<tr>
<td>Production of total construction sa (m2)</td>
</tr>
<tr>
<td>National Bureau of Statistics</td>
</tr>
<tr>
<td>Production of motor vehicles sa (number)</td>
</tr>
<tr>
<td>National Bureau of Statistics</td>
</tr>
<tr>
<td>Share prices: Shanghai Stock Exchange turnover (CNY)</td>
</tr>
<tr>
<td>Shanghai Stock Exchange</td>
</tr>
</tbody>
</table>

**Reference chronology of turning points**


OECD Composite Leading Indicators

http://www.oecd.org/std/leading-indicators/
India

Component Series (Unit)

<table>
<thead>
<tr>
<th>Series</th>
<th>Source</th>
</tr>
</thead>
<tbody>
<tr>
<td>IP Production of manufactured durable consumer goods sa (2015=100)</td>
<td>Ministry of Statistics</td>
</tr>
<tr>
<td>IP Production of manufactured non-metallic mineral products sa (2015=100)</td>
<td>Ministry of Statistics</td>
</tr>
<tr>
<td>Passenger car sales sa (number)</td>
<td>Society of Indian Automobile Manufacturers</td>
</tr>
<tr>
<td>Monetary aggregate M1 sa (INR)</td>
<td>Reserve Bank of India</td>
</tr>
<tr>
<td>Share prices: BSE (100) national index (2015=100)</td>
<td>Reserve Bank of India</td>
</tr>
<tr>
<td>Call money rate (% p.a.) <em>inverted</em></td>
<td>Reserve Bank of India</td>
</tr>
</tbody>
</table>

Reference chronology of turning points

Indonesia

Component Series (Unit)

<table>
<thead>
<tr>
<th>Series</th>
<th>Source</th>
</tr>
</thead>
<tbody>
<tr>
<td>Share prices: IDX composite index (2015=100)</td>
<td>Jakarta Stock Exchange</td>
</tr>
<tr>
<td>Central Bank Discount rate (% p.a.) inverted</td>
<td>Central Bank of Indonesia</td>
</tr>
<tr>
<td>IDR/USD exchange rate end period (%) inverted</td>
<td>International Monetary Fund</td>
</tr>
<tr>
<td>Wholesale Price Index (2015=100) inverted</td>
<td>Central Bank of Indonesia</td>
</tr>
<tr>
<td>Consumer - Confidence indicator (normal = 100)</td>
<td>Central Bank of Indonesia</td>
</tr>
<tr>
<td>Production of paper and paper products sa (2015=100)</td>
<td>National Bureau of Statistics</td>
</tr>
<tr>
<td>Tourist arrivals sa (number)</td>
<td>National Bureau of Statistics</td>
</tr>
</tbody>
</table>

Reference chronology of turning points

Russian Federation

Component Series (Unit)

Manufacturing - Order books: level sa (% balance)
Share prices: RTS index (2015=100)
World market price of crude oil (2015=100)

Manufacturing - Production: tendency sa (% balance)
Manufacturing - Export order books: level sa (% balance)

Source

GAIDAR, Institute for Economic Policy
Central Bank of R.F.
Hamburg Institute of International Economics (HWWA)
GAIDAR, Institute for Economic Policy
GAIDAR, Institute for Economic Policy

Reference chronology of turning points

South Africa

**Component Series (Unit)**

- Manufacturing - Orders inflow/Demand: tendency (% balance)
- Manufacturing - Confidence indicator (% balance)
- Permits issued for total buildings sa (2015=100)
- Passenger car registrations sa (2015=100)
- Share prices: FTSE/JSE index (2015=100)
- Spread of interest rates (% p.a.)

**Source**

- Bureau of Economic Research
- Bureau of Economic Research
- Reserve Bank
- Reserve Bank
- International Monetary Fund
- Reserve Bank

**Reference chronology of turning points**

OECD

Reference chronology of turning points

OECD + non-member economies

Reference chronology of turning points

Major seven countries

Reference chronology of turning points

OECD Europe

Reference chronology of turning points

Euro area

Reference chronology of turning points

Four big European countries

Reference chronology of turning points

NAFTA area

Reference chronology of turning points

Major five Asia

Reference chronology of turning points