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

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<td>Switzerland</td>
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<td>Turkey</td>
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<td>United Kingdom</td>
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<tr>
<td>United States</td>
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</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

Trough 2001M2, Peak 2002M6, Trough 2003M5, Peak 2008M2, Trough 2011M3, Peak 2012M5,
Trough 2015M5, Peak 2018M5
Austria

Component Series (Unit)

Manufacturing - Production: future tendency sa (% balance)  
Manufacturing - Order books: level sa (% balance) 
Manufacturing - Business situation of Germany: present sa (normal=100) 
Consumer - Confidence indicator sa (% balance) 
Job vacancies: unfilled sa (persons) 
Spread of interest rates (% p.a.)

Source

European Commission 
European Commission 
IFO Institute, Germany 
European Commission 
European Central Bank

Reference chronology of turning points


OECD Composite Leading Indicators  
http://www.oecd.org/std/leading-indicators/
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)

<table>
<thead>
<tr>
<th>Series</th>
<th>Description</th>
<th>Source</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Production in total mining sa index (2015=100)</td>
<td>National Statistical Institute of Chile</td>
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<tr>
<td></td>
<td>Retail trade - Confidence indicator sa (% balance)</td>
<td>ICARE</td>
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<tr>
<td></td>
<td>Manufacturing - Production: tendency sa (% balance)</td>
<td>ICARE</td>
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<td></td>
<td>Monetary aggregate M1 sa (CLP)</td>
<td>Central Bank of Chile</td>
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<td></td>
<td>Share prices: IPSA index (2015=100)</td>
<td>Santiago Stock Exchange</td>
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<td></td>
<td>I ITS Net trade (f.o.b. - c.i.f.) sa (CLP)</td>
<td>Central Bank of Chile</td>
</tr>
</tbody>
</table>

### Reference chronology of turning points

- Peak 1997M12, Trough 1999M4, Peak 2001M2, Trough 2003M10, Peak 2008M3, Trough 2009M8,
- Peak 2013M7, Trough 2017M3, Peak 2018M4
## Czech Republic

### Component Series (Unit)

<table>
<thead>
<tr>
<th>Series</th>
<th>Description</th>
<th>Source</th>
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</thead>
<tbody>
<tr>
<td>BOP Capital account, debit (czk)</td>
<td></td>
<td>Czech National Bank</td>
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<tr>
<td>Services - Demand evolution: future tendency sa (% balance)</td>
<td></td>
<td>European Commission</td>
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<tr>
<td>Manufacturing - Production: tendency sa (%)</td>
<td></td>
<td>European Commission</td>
</tr>
<tr>
<td>CPI HICP All items (2015=100) inverted</td>
<td></td>
<td>Czech Statistical Office</td>
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<tr>
<td>Consumer - Confidence indicator sa (% balance)</td>
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<td>European Commission</td>
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<tr>
<td>ITS Exports f.o.b. total sa (czk)</td>
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<td>Czech Statistical Office</td>
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<tr>
<td>Share prices: PX-50 index (2015=100)</td>
<td></td>
<td>Czech Statistical Office</td>
</tr>
</tbody>
</table>

### Reference chronology of turning points

Denmark

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

Reference chronology of turning points
Trough 1981M9, Peak 1986M1, Trough 1987M2, Peak 1989M1, Trough 1991M1, Peak 1992M9,
Trough 2017M11

OECD Composite Leading Indicators
http://www.oecd.org/std/leading-indicators/
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 2004M7, Peak 2007M5, Trough 2009M9, Peak 2012M7, Trough 2013M12, Peak 2014M9,
Trough 2016M4, Peak 2017M5
Finland

Component Series (Unit)

<table>
<thead>
<tr>
<th>Indicator</th>
<th>Source</th>
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<td>CPI All items (2015=100) inverted</td>
<td>Statistics Finland</td>
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<tr>
<td>Consumer - Confidence indicator sa (% balance)</td>
<td>European Commission</td>
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<tr>
<td>Spread of interest rates (% p.a.)</td>
<td>European Central Bank</td>
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<tr>
<td>Manufacturing - Production: tendency sa (% balance)</td>
<td>European Commission</td>
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<tr>
<td>Domestic PPI Industrial activities (2015=100)</td>
<td>Statistics Finland</td>
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<tr>
<td>Manufacturing - Finished goods stocks: level sa (% balance) inverted</td>
<td>European Commission</td>
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<tr>
<td>Share prices: OMXH index (2015=100)</td>
<td>Bank of Finland</td>
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<tr>
<td>Services – Demand evolution: future tendency (% balance)</td>
<td>European Commission</td>
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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

Germany

Component Series (Unit)

IFO business climate indicator (normal=100)
Orders inflow/demand (manuf.): tendency (% balance)
Export order books (manuf.): expectation (% balance)
New orders in manuf. industry (2010 = 100)
Finished goods stocks (manuf.): level (% balance) inverted
Spread of interest rates (% p.a.)
Services – Demand evolution: future tendency (% balance)
Consumer - Confidence indicator sa (% balance)

Source

IFO Institute for Economic Research
IFO Institute for Economic Research
IFO Institute for Economic Research
DESTATIS Federal Statistical Office
European Commission
European Central Bank
European Commission
European Commission

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

**Reference chronology of turning points**

## Hungary

### Component Series (Unit)

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<th>Series</th>
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<td>European Commission</td>
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<td>Registered unemployment: level (all persons) sa</td>
<td>Hungarian Central Statistical Office</td>
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<td>Monthly hours worked: manufacturing sa (hours)</td>
<td>Hungarian Central Statistical Office</td>
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<td>Bank of Hungary</td>
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<td>Central bank base rate (% per annum)</td>
<td>Bank of Hungary</td>
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<td>ITS Imports c.i.f. total sa (HUF)</td>
<td>Hungarian Central Statistical Office</td>
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### Reference chronology of turning points

Ireland

**Component Series (Unit)**
- Exports to Northern Ireland sa (EUR)
- Exports of agricultural products to other Euro sa (EUR)
- Passenger car registrations sa (2015=100)
- Total PPI Mining and quarrying activities (2015=100)
- Share prices: ISEQ index (2015=100)
- Real effective exchange rates - CPI Based (2015=100) *inverted*
- Money supply M2 to Euro area (EUR)

**Source**
- Central Statistics Office Ireland
- Central Statistics Office Ireland
- Central Statistics Office Ireland
- Eurostat
- Central Bank of Ireland
- OECD, Economic Department
- Central Statistics Office Ireland

**Reference chronology of turning points**
Israel

Component Series (Unit)

<table>
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<th>Series</th>
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<tbody>
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<td>Manufacturing - Production: future tendency sa (% balance)</td>
<td>Bank of Israel</td>
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<td>Total retail trade (Volume) sa (2015=100)</td>
<td>Central Bureau of Statistics</td>
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<td>Domestic PPI Manufacturing (2015=100)</td>
<td>Central Bureau of Statistics</td>
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<td>Share prices: TA 100 index (2015=100)</td>
<td>Tel-Aviv Stock Exchange</td>
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<td>Total Departures Of Israelis sa (number)</td>
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<td>Exports of manufactures diamonds prices 2010 (USD)</td>
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Italy

Component Series (Unit)

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<th>Description</th>
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<td>Consumer - Confidence indicator sa (% balance)</td>
<td>European Commission</td>
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<td>Manufacturing</td>
<td>Manufacturing - Order books: level sa (% balance)</td>
<td>European Commission</td>
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<td>Deflated orders for total manufactured goods (Value)</td>
<td>Deflated orders for total manufactured goods (Value) sa (2010 = 100)</td>
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<td>Manufacturing - Production: future tendency</td>
<td>Manufacturing - Production: future tendency sa (% balance)</td>
<td>European Commission</td>
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<td>CPI All items</td>
<td>CPI All items (2010=10) inverted</td>
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<tr>
<td>Imports from Germany</td>
<td>Imports from Germany c.i.f. (USD)</td>
<td>ISTAT</td>
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Reference chronology of turning points

Component Series (Unit)

Ratio of inventories to shipments sa (2015=100) \textit{inverted}
ITS Volume of imports/volume of exports sa (2015=100)
Ratio loans to deposits sa (\%) \textit{inverted}
Monthly hours worked: manufacturing sa (2015=100)
Work started for dwellings sa (2015=100)
Share prices: TOPIX index (2015=100)
Spread of interest rates (\% p.a.)
Small Business Survey: Sales tendency (\% balance)

Source

Statistics Japan
Japan Customs
Bank of Japan
Statistics Japan
Ministry of Construction
Bank of Japan
Bank of Japan
Japan Finance Corporation for SMSE

Reference chronology of turning points

## Korea

### Component Series (Unit)

<table>
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<th>Source</th>
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<td>Manufacturing - Business situation: future (% balance)</td>
<td>Bank of Korea</td>
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<td>Share prices: KOSPI index (2010 = 100)</td>
<td>Bank of Korea</td>
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<tr>
<td>Stocks of manufactured investment goods (volume) sa <em>inverted</em></td>
<td>National Statistical Office</td>
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<td>Inventory circulation indicator (manufacturing)</td>
<td>National Statistical Office</td>
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<td>Spread of interest rates (% p.a.)</td>
<td>National Statistical Office</td>
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<td>Net Barter Terms of trade (2015=100)</td>
<td>National Statistical Office</td>
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### Reference chronology of turning points

Luxembourg

Component Series (Unit)

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<tr>
<td>OECD CLI for Belgium (trend restored)</td>
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Reference chronology of turning points

Mexico

Component Series (Unit)

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<td>Employees - Manufacturing (D) sa (%)</td>
<td>INEGI</td>
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<td>Manufacturing - Employment: tendency sa (% balance)</td>
<td>Bank of Mexico</td>
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<td>Manufacturing - Finished goods: tendency sa (% balance) <em>inverted</em></td>
<td>Bank of Mexico</td>
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<td>Manufacturing - Production: tendency sa (% balance)</td>
<td>Bank of Mexico</td>
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<tr>
<td>Yield &gt;10-year US fed. Gov. securities (% p.a.) <em>inverted</em></td>
<td>US Treasury Department USA</td>
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<td>CPP Rate (% p.a.) <em>inverted</em></td>
<td>Bank of Mexico</td>
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<tr>
<td>Real effective exchange rates - CPI Based (2015=100)</td>
<td>OECD</td>
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</tbody>
</table>

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 2018M2
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**

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)

<table>
<thead>
<tr>
<th>Series</th>
<th>Source</th>
</tr>
</thead>
<tbody>
<tr>
<td>Real effective exchange rates - CPI Based (2015=100) inverted</td>
<td>OECD</td>
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<tr>
<td>3-month WIBOR (% per annum) inverted</td>
<td>Bank of Poland</td>
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<tr>
<td>Manufacturing - Production: tendency sa (% balance)</td>
<td>European Commission</td>
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<tr>
<td>Job vacancies: unfilled sa (number)</td>
<td>Central Statistical Office</td>
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<tr>
<td>Production of coal (tonnes)</td>
<td>Central Statistical Office</td>
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</tbody>
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Reference chronology of turning points

Peak 1998M1, Trough 1999M1, Peak 2000M11, Trough 2003M1, Peak 2004M3, Trough 2005M5,
Peak 2008M2, Trough 2009M7, Peak 2011M10, Trough 2013M11, Peak 2015M9, Trough 2016M7,
Peak 2018M8
Portugal

**Component Series (Unit)**

- Industrial production: electricity, gas & water (2015=100)
- Manufacturing - Production: future tendency sa (% balance)
- Manufacturing - Order books: level sa (% balance)
- Manufacturing - Export order books: level sa (% balance)
- Share prices: PSL-20 index (2015=100)
- Job vacancies: unfilled sa (number)
- Services – Demand evolution: future tendency (% balance)

**Source**

- INE
- European Commission
- INE
- Lisbon Stock Exchange
- INE
- European Commission

**Reference chronology of turning points**

### Slovak Republic

#### Component Series (Unit)

<table>
<thead>
<tr>
<th>Description</th>
<th>Source</th>
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<tbody>
<tr>
<td>Retail trade - Confidence indicator sa (% balance)</td>
<td>European Commission</td>
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<tr>
<td>Total retail trade (Volume) sa (2015=100)</td>
<td>Eurostat</td>
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<tr>
<td>Consumers - Expected economic situation sa (% balance)</td>
<td>European Commission</td>
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<tr>
<td>Share prices: SAX index (2015=100)</td>
<td>Bratislava Stock Exchange</td>
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<tr>
<td>ITS Imports c.i.f. total sa (USD)</td>
<td>Eurostat</td>
</tr>
</tbody>
</table>

#### Reference chronology of turning points

Slovenia

Component Series (Unit)  
IP Manufacture Basic Metals sa (2015=100)  
Manufacturing - Order books: level sa (% balance)  
Manufacturing - Production: tendency sa (% balance)  
CPI All items (2015=100) inverted  
EUR/USD exchange rate monthly average (%)  
Consumers - Expected economic situation sa (% 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
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>Component</th>
<th>Series</th>
<th>Source</th>
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<tbody>
<tr>
<td>Yield 5-year government bonds (% p.a.)</td>
<td>inverted</td>
<td>Bank of Sweden</td>
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<tr>
<td>Overtime hours worked mining &amp; manuf. (%)</td>
<td></td>
<td>Statistics Sweden</td>
</tr>
<tr>
<td>Orders for total manufactured goods (Volume)</td>
<td>sa (2015=100)</td>
<td>Statistics Sweden</td>
</tr>
<tr>
<td>Order books (manuf.): level (% balance)</td>
<td></td>
<td>European Commission</td>
</tr>
<tr>
<td>Manufacturing - Finished goods stocks: level sa (% balance)</td>
<td>inverted</td>
<td>European Commission</td>
</tr>
<tr>
<td>Services - Demand evolution: future tendency (% balance)</td>
<td></td>
<td>European Commission</td>
</tr>
<tr>
<td>Consumer - Confidence indicator sa (% balance)</td>
<td></td>
<td>European Commission</td>
</tr>
<tr>
<td>Share prices: OMXS30 index (2015=100)</td>
<td></td>
<td>Bank of Sweden</td>
</tr>
</tbody>
</table>

**Reference chronology of turning points**

Switzerland

Component Series (Unit)

Manufacturing - Finished goods stocks: level (% balance) inverted
 Manufacturing - Orders inflow: tendency sa (% balance)
 Manufacturing - Production: future tendency sa (% balance)
 Share prices: UBS-100 index (2015=100)
 Consumer - Expected economic situation sa (% balance)

Silver prices (CHF/kj)

Source

Swiss Economic Institute KOF/ETH
Swiss Economic Institute KOF/ETH
Swiss Economic Institute KOF/ETH
Swiss Exchange
Swiss State Secretariat for Economic Affairs (SECO) & Konso Basel
Swiss National Bank

Reference chronology of turning points

Peak 1961M11, Trough 1963M2, Peak 1964M5, Trough 1966M1, Peak 1967M1, Trough 1969M2,
Peak 1981M6, Trough 1983M1, Peak 1985M10, Trough 1987M4, Peak 1990M4, Trough 1993M1,
Peak 2008M4, Trough 2009M5, Peak 2011M3, Trough 2012M12, Peak 2014M10, Trough 2017M2,
Peak 2018M4
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

Peak 1955M9, Trough 1959M1, Peak 1961M2, Trough 1962M12, Peak 1964M9, Trough 1966M12,
Peak 1968M8, Trough 1970M2, Peak 1973M4, Trough 1975M8, Peak 1979M6, Trough 1981M4,
Peak 1997M5, Trough 1999M5, Peak 2001M6, Trough 2002M6, Peak 2003M11, Trough 2004M11,
Peak 2008M1, Trough 2009M6, Peak 2014M12, Trough 2016M7
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
New York Stock Exchange
(https://www.nyse.com/quote/index/NY)
Survey of consumers – Thomson Reuters / University of Michigan
Bureau of Labor Statistics
Institute of Supply Management Federal Reserve

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**

## China

### Component Series (Unit)

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

### Reference chronology of turning points

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.) inverted</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.) <strong>inverted</strong></td>
<td>Central Bank of Indonesia</td>
</tr>
<tr>
<td>IDR/USD exchange rate end period (%) <strong>inverted</strong></td>
<td>International Monetary Fund</td>
</tr>
<tr>
<td>Wholesale Price Index (2015=100) <strong>inverted</strong></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>

### Source

- Jakarta Stock Exchange
- Central Bank of Indonesia
- International Monetary Fund
- National Bureau of Statistics

### 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
- Reserve Bank
- International Monetary Fund

Reference chronology of turning points

Peak 1971M1, Trough 1972M8, Peak 1974M6, Trough 1977M10, Peak 1981M9, Trough 1983M4,
Trough 2017M1, Peak 2017M10
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