Očekivanja – osnovni alati
Finansijska tržišta i očekivanja

Prof.dr Maja Baćović

15/04/2021

Uvod

- Racionalna očekivanja su komponenta ekonomske analize nastala 70-ih godina XX vijeka.

- Teorija se bazira na ideji o informisanosti o budućim događajima i korišćenju informacija od strane učesnika na tržištu prilikom donošenja ekonomskih odluka u sadašnjosti.

Nova klasična ekonomija

- Bazu teorije čine osnovne postavke klasične ekonomske teorije, pa se stoga često i naziva *novom klasičnom teorijom,* ali i ideje monetarističke teorije koju je razvio Milton Friedman.
- Ključna ideja teorije je da učesnici na tržištu ne zanemaruju informacije i predviđanja o budućim ekonomskim kretanjima i događajima.
- Naprotiv, oni racionalno predviđaju posledice najavljenih događaja i makroekonomskih mjera i reaguju u sadašnjosti u skladu sa formiranim očekivanjima.
- Teoretičari racionalnih očekivanja smatraju da će potrošači i proizvođači dobara, usluga i finansijskih instrumenata, reagovati na mjere fiskalne, monetarne i drugih politika državne administracije, na bazi znanja i informacija o tome kako će se te mjere odraziti na ekonomska dešavanja, ili će eventualno steći takva znanja koja će primijeniti u budućnosti.

Primjeri

- Pr.1-kupovina stana
  - Kretanje zarada
  - Troškovi života
  - Recesija
  - Sigurnost zaposlenja

- Pr.2-širenje proizvodnih kapaciteta
  - Privremeni/trajni porast tražnje

- Pr.3-upravljanje portfeljom investicionog fonda
  - Očekivani profit kompanija akcija u portfelju
  - Kretanje kamatnih stopa
  - Inflacija

Consumer confidence index (CCI)

This consumer confidence indicator provides an indication of future developments of households' consumption and saving, based upon answers regarding their expected financial situation, their sentiment about the general economic situation, unemployment and capability of savings. An indicator above 100 signals a boost in the consumers' confidence towards the future economic situation, as a consequence of

› More ...

Related topics

Economy

Latest publication

Main Economic Indicators

PUBLICATION (2021)

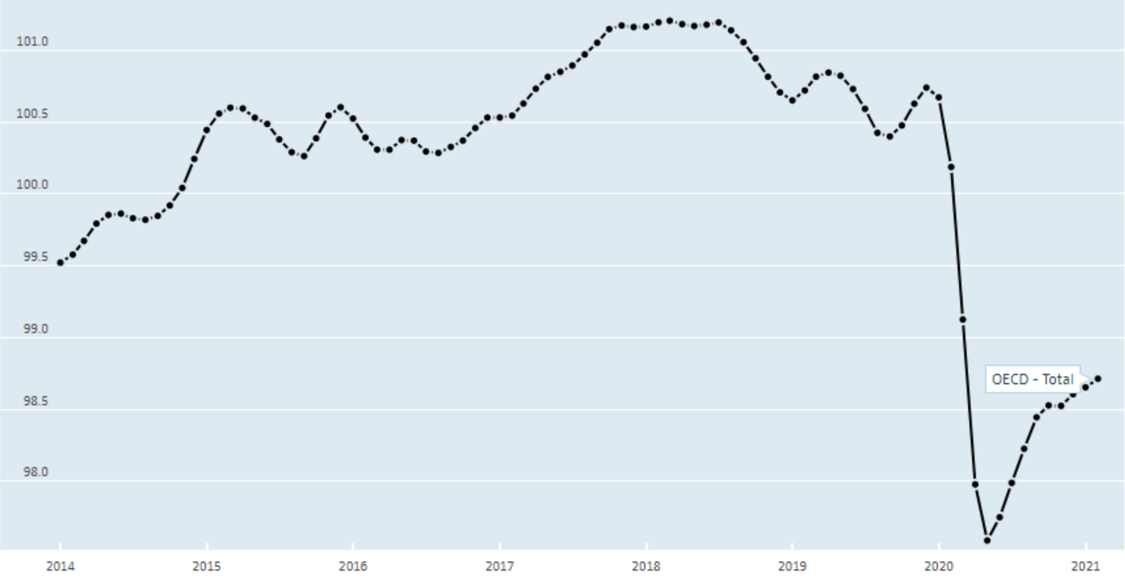
Indicators

- Composite leading indicator (CLI)
- Business confidence index (BCI)
- Consumer confidence index (CCI)

Consumer confidence index (CCI) Amplitude adjusted, Long-term average = 100, Jan 2014 – Feb 2021

Source: Business tendency and consumer opinion surveys

Show: Chart Map Table fullscreen share download My pinboard



Perspectives Countries Time

Business confidence index (BCI)

Related topics

Economy

Latest publication

Main Economic Indicators
PUBLICATION (2021)

This business confidence indicator provides information on future developments, based upon opinion surveys on developments in production, orders and stocks of finished goods in the industry sector. It can be used to monitor output growth and to anticipate turning points in economic activity. Numbers above 100 suggest an increased confidence in near future business performance, and numbers below 100 indicate pessimism towards future performance.

Indicators

- Composite leading indicator (CLI)
- Business confidence index (BCI)
- Consumer confidence index (CCI)

Business confidence index (BCI) Amplitude adjusted, Long-term average = 100, Jan 2008 – Feb 2021

Source: Business tendency and consumer opinion surveys

Show: Chart Table fullscreen share download My pinboard

Perspectives Countries Time ©

World Economic Outlook, April 2 | Leading indicators - Composite l

data.oecd.org/leadind/composite-leading-indicator-cli.htm#indicator-chart

OECD 60 Data

› Français | Search for OECD data

Composite leading indicator (CLI)

Related topics

Economy

The composite leading indicator (CLI) is designed to provide early signals of turning points in business cycles showing fluctuation of the economic activity around its long term potential level. CLIs show short-term economic movements in qualitative rather than quantitative terms.

Latest publication

Main Economic Indicators

PUBLICATION (2021)

Indicators

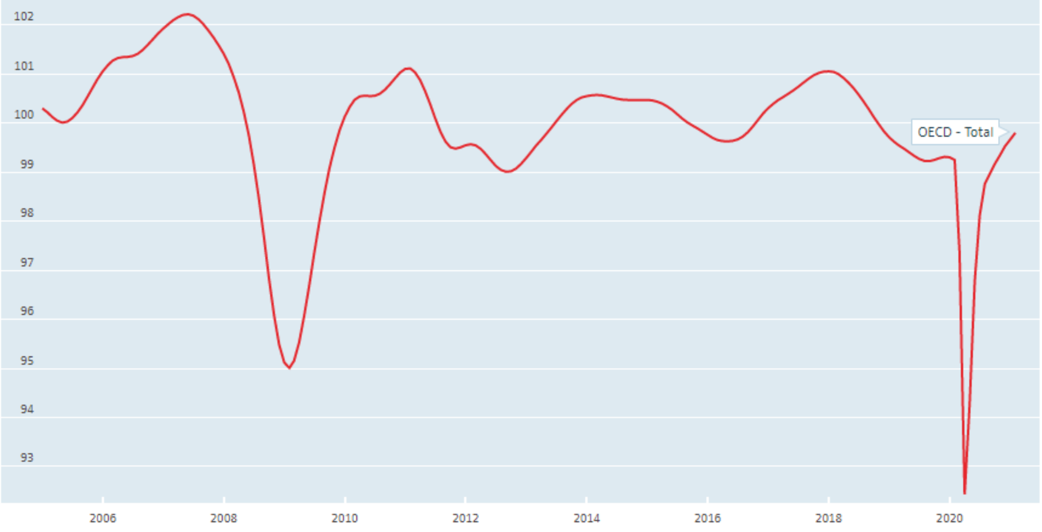
- Composite leading indicator (CLI)
- Business confidence index (BCI)
- Consumer confidence index (CCI)

Composite leading indicator (CLI)

Amplitude adjusted, Long-term average = 100, Jan 2005 – Feb 2021

Source: Composite leading indicators

Show: Chart | Map | Table | fullscreen | share | download | My pinboard



©

Perspectives: Amplitude adjusted; Long-term average = 100

Countries: Highlighted Countries (1)

Time: yearly | quarterly | **monthly**

latest data available

IMF Economic Out....pdf | Show all

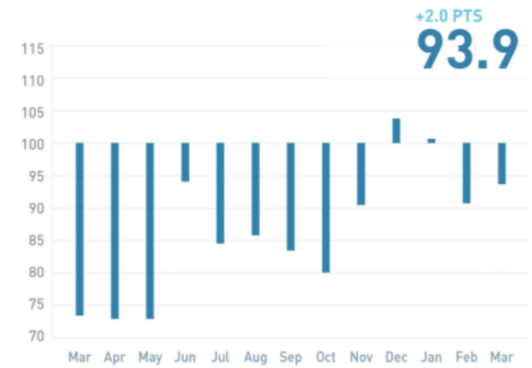
Type here to search | SRP | 13:07 | 12-Apr-21

Summary

The State Street Investor Confidence Index® (the index) provides an objective, quantitative measure of global risk tolerance of the world's sophisticated investors. Regional components measure separately the risk appetites of institutional investors in North America, Europe and the Asia-Pacific region.

The Index is released at 10 a.m Eastern Time in the US, on the last Wednesday of each month.

Global Index on March 31, 2021



The Premise

Confidence in the economy and the capital markets is a critical driver of economic and financial fluctuations and of the business cycle. When confidence increases, consumers and investors want to buy consumer

Email Alerts

Sign up for up-to-date email alerts about the Investor Confidence Index.

SIGN UP

Press Release

English

Historical Data

English

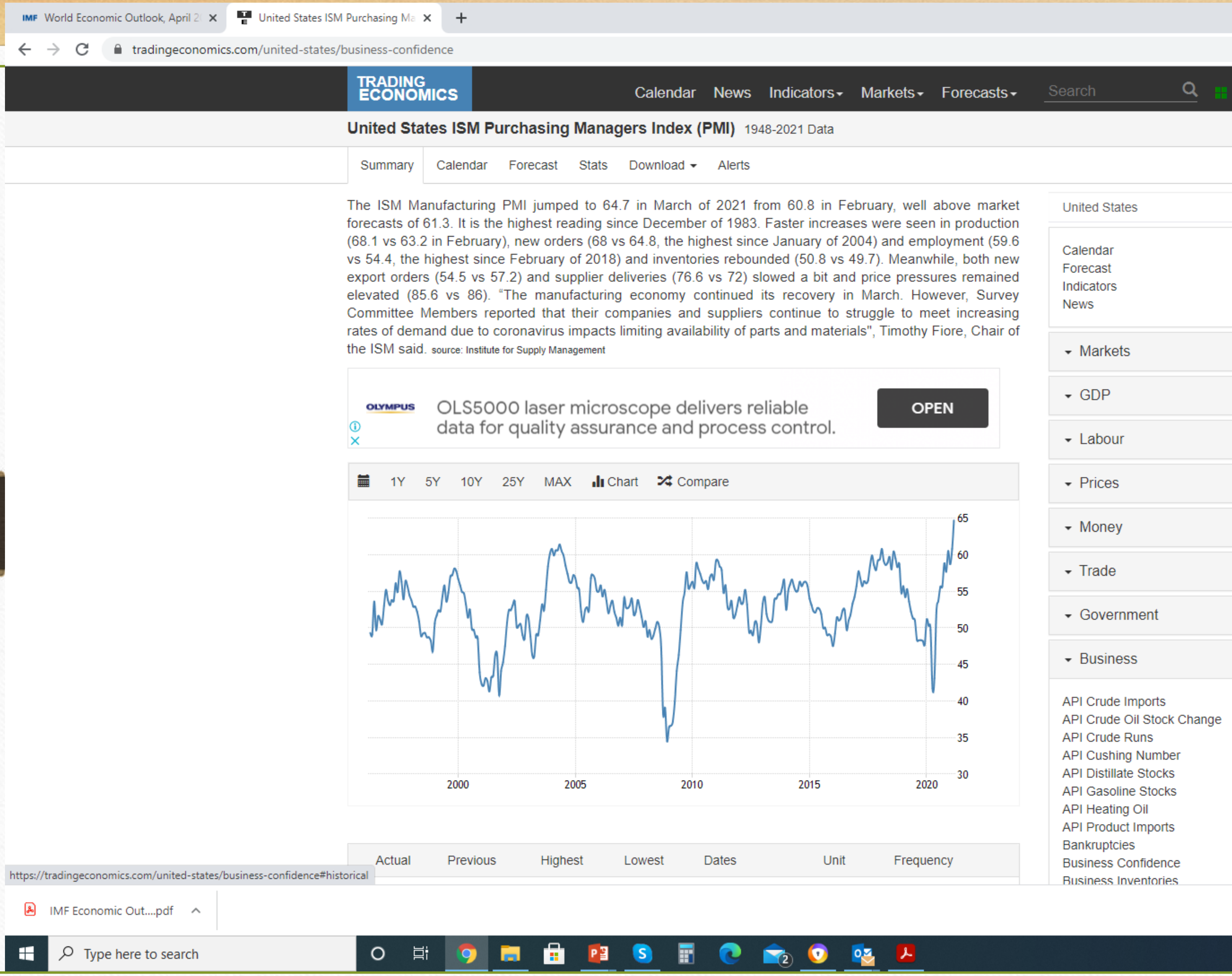
French

More Resources

F.A.Q.

Join the team

Looking for your next move? Check out the roles we currently have available.



United States ISM Purchasing Managers Index (PMI)

The Manufacturing ISM Report On Business® is based on data compiled from purchasing and supply executives nationwide. Survey responses reflect the change, if any, in the current month compared to the previous month. For each of the indicators measured (New Orders, Backlog of Orders, New Export Orders, Imports, Production, Supplier Deliveries, Inventories, Customers' Inventories, Employment and Prices), the report shows the percentage reporting each response, the net difference between the number of responses in the positive economic direction and the negative economic direction, and the diffusion index. A PMI™ reading above 50 percent indicates that the manufacturing economy is generally expanding; below 50 percent indicates that it is generally declining.

Projekcije

- GDP
- Zaposlenost
- Cijene
- Medjunarodna razmjena

Annex Table 1.1.1. European Economies: Real GDP, Consumer Prices, Current Account Balance, and Unemployment
(Annual percent change, unless noted otherwise)

	Real GDP			Consumer Prices[1]			Current Account Balance[2]			Unemployment[3]		
		Projections			Projections			Projections			Projections	
	2020	2021	2022	2020	2021	2022	2020	2021	2022	2020	2021	2022
Europe	**–5.2**	**4.5**	**3.9**	**2.0**	**3.1**	**2.7**	**1.8**	**2.2**	**2.1**	...	...	...
Advanced Europe	**–6.8**	**4.5**	**4.0**	**0.4**	**1.4**	**1.3**	**2.2**	**2.5**	**2.4**	**7.1**	**8.0**	**7.8**
Euro Area[4,5]	–6.6	4.4	3.8	0.3	1.4	1.2	2.3	2.8	2.7	7.9	8.7	8.5
Germany	–4.9	3.6	3.4	0.4	2.2	1.1	7.1	7.6	7.0	4.2	4.4	3.7
France	–8.2	5.8	4.2	0.5	1.1	1.2	–2.3	–2.1	–1.8	8.2	9.1	9.2
Italy	–8.9	4.2	3.6	–0.1	0.8	0.9	3.6	3.5	3.4	9.1	10.3	11.6
Spain	–11.0	6.4	4.7	–0.3	1.0	1.3	0.7	1.0	1.9	15.5	16.8	15.8
The Netherlands	–3.8	3.5	3.0	1.1	1.4	1.5	10.0	9.0	8.9	3.8	4.9	4.7
Belgium	–6.4	4.0	3.1	0.4	1.7	1.9	–0.7	–0.9	–1.5	5.6	6.8	6.6
Austria	–6.6	3.5	4.0	1.4	1.6	1.8	2.3	2.4	2.5	5.3	5.5	5.3
Ireland	2.5	4.2	4.8	–0.5	1.6	1.9	4.6	7.0	6.9	5.6	6.8	5.7
Portugal	–7.6	3.9	4.8	–0.1	0.9	1.2	–1.2	–0.6	0.3	6.8	7.7	7.3
Greece	–8.2	3.8	5.0	–1.3	0.2	0.8	–7.4	–6.6	–3.5	16.4	16.6	15.2
Finland	–2.9	2.3	2.5	0.4	1.4	1.5	0.8	1.5	1.4	7.8	8.6	7.9
Slovak Republic	–5.2	4.7	4.4	2.0	1.2	1.9	–0.4	–1.2	–2.0	6.7	7.3	6.7
Lithuania	–0.8	3.2	3.2	1.1	1.5	1.9	7.9	6.2	4.8	8.9	8.4	7.6
Slovenia	–5.5	3.7	4.5	–0.1	0.8	1.5	7.3	6.9	6.6	5.1	5.4	5.0
Luxembourg	–1.3	4.1	3.6	0.0	0.9	1.8	4.4	4.9	4.9	6.3	6.7	6.4
Latvia	–3.6	3.9	5.2	0.1	2.1	2.2	3.0	0.5	0.2	8.2	7.2	6.7
Estonia	–2.9	3.4	4.2	–0.6	1.8	2.5	–1.0	0.4	–0.5	6.8	7.1	6.5
Cyprus	–5.1	3.0	3.9	–1.1	0.5	0.8	–10.3	–8.5	–6.1	7.6	7.5	7.0
Malta	–7.0	4.7	5.6	0.8	1.1	1.4	–0.6	0.2	1.2	4.3	4.3	4.1
United Kingdom	–9.9	5.3	5.1	0.9	1.5	1.9	–3.9	–3.9	–4.0	4.5	6.1	6.1
Switzerland	–3.0	3.5	2.8	–0.7	0.1	0.3	3.8	6.7	7.5	3.1	3.5	3.4
Sweden	–2.8	3.1	3.0	0.7	1.5	1.2	5.2	5.0	4.7	8.3	8.7	8.4
Czech Republic	–5.6	4.2	4.3	3.2	2.3	2.0	3.5	0.9	0.1	2.7	3.4	3.2
Norway	–0.8	3.9	4.0	1.3	2.2	2.0	2.5	5.4	4.8	4.6	4.3	4.0
Denmark	–3.3	2.8	2.9	0.3	1.1	1.4	7.9	8.0	7.8	5.6	5.6	5.5
Iceland	–6.6	3.7	3.6	2.9	3.2	2.5	1.0	1.0	1.7	6.4	6.0	5.0
San Marino	–9.7	4.5	3.4	0.2	0.8	0.9	1.9	1.1	1.1	7.3	6.6	6.4
Emerging and Developing Europe[6]	**–2.0**	**4.4**	**3.9**	**5.4**	**6.5**	**5.4**	**0.0**	**0.6**	**0.4**	...	...	...
Russia	–3.1	3.8	3.8	3.4	4.5	3.4	2.2	3.9	3.3	5.8	5.4	5.0
Turkey[7]	1.8	6.0	3.5	12.3	13.6	11.8	–5.1	–3.4	–2.2	13.1	12.4	11.0
Poland	–2.7	3.5	4.5	3.4	3.2	2.5	3.5	2.0	1.3	3.2	4.9	4.5
Romania	–3.9	6.0	4.8	2.6	2.8	2.1	–5.1	–5.0	–4.7	5.0	4.9	4.9
Ukraine[7]	–4.2	4.0	3.4	2.7	7.9	6.8	4.3	–2.5	–3.6	9.0	8.6	8.4
Hungary	–5.0	4.3	5.9	3.3	3.6	3.5	–0.2	–0.4	–0.3	4.1	3.8	3.5
Belarus	–0.9	–0.4	0.8	5.5	6.9	5.5	0.1	–0.3	–1.7	4.1	4.5	4.4
Bulgaria[5]	–3.8	4.4	4.4	1.2	1.0	2.0	0.1	1.4	1.2	5.2	4.8	4.4
Serbia	–1.0	5.0	4.5	1.7	2.2	2.4	–4.3	–5.7	–5.5	13.3	13.0	12.7
Croatia	–9.0	4.7	5.0	0.3	0.7	1.2	–3.5	–2.3	–1.6	9.2	9.4	9.0

Source: IMF staff estimates.

Table A2. Advanced Economies: Real GDP and Total Domestic Demand[1]

(Annual percent change)

	Average 2003–12	2013	2014	2015	2016	2017	2018	2019	2020	Projections 2021	Projections 2022	Projections 2026	Q4 over Q4[2] 2020:Q4	Q4 over Q4[2] Projections 2021:Q4	Q4 over Q4[2] Projections 2022:Q4
Real GDP															
Advanced Economies	**1.7**	**1.4**	**2.1**	**2.4**	**1.8**	**2.5**	**2.3**	**1.6**	**–4.7**	**5.1**	**3.6**	**1.5**	**–3.1**	**4.9**	**2.3**
United States	1.8	1.8	2.5	3.1	1.7	2.3	3.0	2.2	–3.5	6.4	3.5	1.6	–2.5	6.3	2.3
Euro Area	0.9	–0.2	1.4	2.0	1.9	2.6	1.9	1.3	–6.6	4.4	3.8	1.3	–4.9	4.4	2.4
Germany	1.1	0.4	2.2	1.5	2.2	2.6	1.3	0.6	–4.9	3.6	3.4	1.1	–3.6	3.4	2.8
France	1.2	0.6	1.0	1.1	1.1	2.3	1.9	1.5	–8.2	5.8	4.2	1.2	–4.9	4.5	2.6
Italy	–0.1	–1.8	0.0	0.8	1.3	1.7	0.9	0.3	–8.9	4.2	3.6	0.8	–6.6	4.1	2.1
Spain	1.1	–1.4	1.4	3.8	3.0	3.0	2.4	2.0	–11.0	6.4	4.7	1.4	–9.1	7.2	1.5
The Netherlands	1.2	–0.1	1.4	2.0	2.2	2.9	2.4	1.7	–3.8	3.5	3.0	1.5	–3.1	4.0	1.8
Belgium	1.7	0.5	1.6	2.0	1.3	1.6	1.8	1.7	–6.4	4.0	3.1	1.3	–5.1	3.4	2.3
Austria	1.6	0.0	0.7	1.0	2.0	2.4	2.6	1.4	–6.6	3.5	4.0	1.8	–5.9	5.9	1.7
Ireland	1.8	1.5	8.6	25.3	2.0	9.4	8.9	5.9	2.5	4.2	4.8	2.6	–0.2	8.5	–0.4
Portugal	–0.1	–0.9	0.8	1.8	2.0	3.5	2.8	2.5	–7.6	3.9	4.8	1.7	–6.1	4.7	2.3
Greece	–0.9	–2.7	0.7	–0.4	–0.5	1.3	1.6	1.9	–8.2	3.8	5.0	1.4	–7.9	6.9	3.6
Finland	1.4	–0.9	–0.4	0.5	2.8	3.2	1.3	1.3	–2.9	2.3	2.5	1.3	–1.7	4.3	0.4
Slovak Republic	4.7	0.7	2.6	4.8	2.1	3.0	3.8	2.3	–5.2	4.7	4.4	2.5	–2.6	3.1	4.0
Lithuania	4.0	3.6	3.5	2.0	2.5	4.3	3.9	4.3	–0.8	3.2	3.2	2.3	–1.0	4.6	1.0
Slovenia	1.9	–1.0	2.8	2.2	3.2	4.8	4.4	3.2	–5.5	3.7	4.5	2.5	–4.7	5.6	3.9
Luxembourg	2.3	3.7	4.3	4.3	4.6	1.8	3.1	2.3	–1.3	4.1	3.6	2.5	1.4	0.9	4.8
Latvia	3.5	2.3	1.1	4.0	2.4	3.3	4.0	2.0	–3.6	3.9	5.2	3.0	–1.8	4.1	5.6
Estonia	3.2	1.3	3.0	1.8	3.2	5.5	4.4	5.0	–2.9	3.4	4.2	3.0	–1.9	3.6	3.8
Cyprus	2.2	–6.6	–1.8	3.2	6.4	5.2	5.2	3.1	–5.1	3.0	3.9	2.5	–4.5	5.1	0.2
Malta	2.7	5.5	7.6	9.6	4.1	8.1	5.2	5.5	–7.0	4.7	5.6	4.5	–6.2	4.3	4.8
Japan	0.7	2.0	0.3	1.6	0.8	1.7	0.6	0.3	–4.8	3.3	2.5	0.5	–1.3	2.0	1.8
United Kingdom	1.4	2.2	2.9	2.4	1.7	1.7	1.3	1.4	–9.9	5.3	5.1	1.4	–7.8	6.5	2.0
Korea	4.0	3.2	3.2	2.8	2.9	3.2	2.9	2.0	–1.0	3.6	2.8	2.3	–1.2	3.7	2.1
Canada	1.9	2.3	2.9	0.7	1.0	3.0	2.4	1.9	–5.4	5.0	4.7	1.5	–3.2	4.1	3.8
Australia	3.1	2.1	2.6	2.3	2.7	2.4	2.8	1.9	–2.4	4.5	2.8	2.5	–1.1	3.2	2.8
Taiwan Province of China	4.4	2.5	4.7	1.5	2.2	3.3	2.8	3.0	3.1	4.7	3.0	2.1	4.6	3.0	2.9
Switzerland	2.0	1.9	2.4	1.6	2.0	1.7	3.0	1.1	–3.0	3.5	2.8	1.8	–1.7	4.5	–0.1
Singapore	6.6	4.8	3.9	3.0	3.3	4.5	3.5	1.3	–5.4	5.2	3.2	2.5	–2.4	3.3	2.3
Sweden	2.1	1.2	2.7	4.5	2.1	2.6	2.0	1.4	–2.8	3.1	3.0	2.0	–2.1	3.7	2.2
Hong Kong SAR	4.5	3.1	2.8	2.4	2.2	3.8	2.8	–1.2	–6.1	4.3	3.8	2.9	–2.9	5.8	1.3
Czech Republic	2.8	0.0	2.3	5.4	2.5	5.2	3.2	2.3	–5.6	4.2	4.3	2.5	–4.7	5.9	1.7
Israel	3.9	4.3	3.9	2.2	3.8	3.6	3.5	3.4	–2.4	5.0	4.3	3.1	–0.6	3.8	3.5
Norway	1.6	1.0	2.0	2.0	1.1	2.3	1.1	0.9	–0.8	3.9	4.0	1.7	–1.1	4.3	3.3
Denmark	0.8	0.9	1.6	2.3	3.2	2.8	2.2	2.9	–3.3	2.8	2.9	1.8	–2.6	2.6	2.7
New Zealand	2.3	2.3	3.7	3.6	3.9	3.5	3.4	2.4	–3.0	4.0	3.2	2.5	–0.9	2.1	3.9
Puerto Rico	–0.5	–0.3	–1.2	–1.0	–1.3	–2.9	–4.7	1.2	–7.5	2.5	0.7	–0.4	. . .	. . .	. . .
Macao SAR	13.2	10.8	–2.0	–21.5	–0.7	10.0	6.5	–2.6	–56.3	61.2	43.0	3.0	. . .	. . .	. . .
Iceland	2.4	4.6	1.7	4.4	6.3	4.2	4.7	2.6	–6.6	3.7	3.6	2.3	–5.9	0.3	3.6
San Marino	–1.2	–0.8	–0.7	2.7	2.3	0.3	1.5	2.4	–9.7	4.5	3.4	1.1	. . .	. . .	. . .
Memorandum															
Major Advanced Economies	1.4	1.4	1.9	2.2	1.5	2.2	2.1	1.5	–5.0	5.4	3.6	1.3	–3.3	5.1	2.4
Real Total Domestic Demand															
Advanced Economies	**1.5**	**1.2**	**2.1**	**2.7**	**2.1**	**2.5**	**2.3**	**1.8**	**–4.6**	**5.1**	**3.6**	**1.5**	**–2.9**	**5.2**	**2.0**
United States	1.7	1.6	2.7	3.7	1.9	2.5	3.2	2.3	–3.3	7.6	3.2	1.5	–1.3	6.7	1.8
Euro Area	0.7	–0.5	1.3	2.3	2.4	2.3	1.9	1.9	–6.4	3.4	4.0	1.3	–5.8	4.3	2.4
Germany	0.8	1.1	1.7	1.4	3.1	2.7	1.8	1.2	–4.2	2.6	4.3	1.2	–4.3	4.8	2.8
France	1.4	0.7	1.5	1.5	1.5	2.4	1.4	1.8	–6.7	5.0	4.3	1.1	–4.3	5.1	1.9
Italy	–0.4	–2.7	0.1	1.2	1.8	1.8	1.3	–0.4	–8.4	3.8	3.4	0.8	–6.2	4.4	1.7
Spain	0.7	–2.9	1.9	4.1	2.1	3.3	3.1	1.4	–9.3	5.6	3.9	1.4	–6.5	4.5	2.3
Japan	0.4	2.4	0.3	1.1	0.3	1.1	0.5	0.5	–3.9	3.0	3.0	0.6	–1.3	4.0	1.3
United Kingdom	1.2	2.6	3.1	3.0	3.0	1.6	0.5	1.6	–10.5	6.7	5.2	1.5	–3.2	4.8	2.3
Canada	3.1	2.2	1.7	–0.2	0.4	4.1	2.2	1.5	–6.7	5.0	5.1	1.7	–4.0	3.8	4.6
Other Advanced Economies[3]	3.0	1.7	2.8	2.5	2.9	3.6	2.7	1.3	–2.9	3.4	3.2	2.3	–2.2	3.9	2.1
Memorandum															
Major Advanced Economies	1.3	1.4	2.0	2.6	1.8	2.3	2.2	1.6	–4.7	5.9	3.6	1.3	–2.4	5.6	2.0

[1]In this and other tables, when countries are not listed alphabetically, they are ordered on the basis of economic size.
[2]From the fourth quarter of the preceding year.
[3]Excludes the Group of Seven (Canada, France, Germany, Italy, Japan, United Kingdom, United States) and euro area countries.

Table A4. Emerging Market and Developing Economies: Real GDP

(Annual percent change)

	Average 2003–12	2013	2014	2015	2016	2017	2018	2019	2020	Projections 2021	Projections 2022	Projections 2026
Emerging and Developing Asia	**8.7**	**6.9**	**6.9**	**6.8**	**6.8**	**6.6**	**6.4**	**5.3**	**–1.0**	**8.6**	**6.0**	**5.4**
Bangladesh	6.1	6.0	6.1	6.6	7.1	7.3	7.9	8.2	3.8	5.0	7.5	7.2
Bhutan	8.5	3.6	4.0	6.2	7.4	6.3	3.8	4.3	–0.8	–1.9	5.7	5.8
Brunei Darussalam	0.5	–2.1	–2.5	–0.4	–2.5	1.3	0.1	3.9	1.2	1.6	2.5	2.0
Cambodia	8.0	7.4	7.1	7.0	6.9	7.0	7.5	7.0	–3.5	4.2	6.0	6.8
China	10.5	7.8	7.4	7.0	6.9	6.9	6.7	5.8	2.3	8.4	5.6	4.9
Fiji	1.2	4.7	5.6	4.5	2.4	5.4	3.8	–0.4	–19.0	5.0	9.0	3.3
India[1]	7.9	6.4	7.4	8.0	8.3	6.8	6.5	4.0	–8.0	12.5	6.9	6.5
Indonesia	5.8	5.6	5.0	4.9	5.0	5.1	5.2	5.0	–2.1	4.3	5.8	5.2
Kiribati	1.1	4.2	–0.7	10.4	5.1	0.9	3.8	3.9	–0.5	1.8	2.5	2.0
Lao P.D.R.	7.6	8.0	7.6	7.3	7.0	6.9	6.3	4.7	–0.4	4.6	5.6	6.0
Malaysia	5.1	4.7	6.0	5.0	4.4	5.8	4.8	4.3	–5.6	6.5	6.0	5.0
Maldives	6.6	7.3	7.3	2.9	6.3	7.2	8.1	7.0	–32.2	18.9	13.4	5.5
Marshall Islands	0.3	3.9	–1.0	1.6	1.4	3.3	3.1	6.5	–3.3	–1.5	3.5	1.6
Micronesia	0.1	–3.7	–2.3	4.6	0.9	2.7	0.2	1.2	–1.6	–3.7	2.8	0.6
Mongolia	8.2	11.6	7.9	2.4	1.2	5.3	7.2	5.2	–5.3	5.0	7.5	5.0
Myanmar	9.6	7.9	8.2	7.5	6.4	5.8	6.4	6.8	3.2	–8.9	1.4	5.1
Nauru	. . .	31.0	27.2	3.4	3.0	–5.5	5.7	1.0	0.7	1.6	0.9	0.5
Nepal	4.2	3.5	6.0	4.0	0.4	9.0	7.6	6.7	–1.9	2.9	4.2	5.2
Palau	0.1	–1.7	6.0	5.0	–0.4	–2.0	5.8	–1.8	–10.3	–10.8	10.4	2.0
Papua New Guinea	4.6	3.8	13.5	6.6	5.5	3.5	–0.3	5.9	–3.9	3.5	4.2	2.8
Philippines	5.2	6.8	6.3	6.3	7.1	6.9	6.3	6.0	–9.5	6.9	6.5	6.5
Samoa	2.3	–0.4	0.1	4.3	8.1	1.0	–2.1	3.6	–3.2	–7.8	1.7	2.1
Solomon Islands	5.4	5.3	1.0	1.4	5.9	5.3	3.9	1.2	–4.3	1.5	4.5	2.9
Sri Lanka	6.7	3.4	5.0	5.0	4.5	3.6	3.3	2.3	–3.6	4.0	4.1	4.2
Thailand	4.4	2.7	1.0	3.1	3.4	4.2	4.2	2.3	–6.1	2.6	5.6	3.6
Timor-Leste[2]	4.9	2.1	4.4	2.9	3.4	–4.1	–1.1	1.8	–6.8	2.8	4.9	3.0
Tonga	0.1	0.3	2.0	1.2	6.6	3.3	0.3	0.7	–0.5	–2.5	2.5	1.8
Tuvalu	0.2	4.9	1.2	9.2	5.9	4.6	3.2	6.0	0.5	2.5	3.5	4.0
Vanuatu	3.9	0.5	3.1	0.4	4.7	6.3	2.9	3.3	–9.2	3.2	4.6	2.7
Vietnam	6.6	5.6	6.4	7.0	6.7	6.9	7.1	7.0	2.9	6.5	7.2	6.6
Emerging and Developing Europe	**4.6**	**3.1**	**1.8**	**1.0**	**1.9**	**4.1**	**3.4**	**2.4**	**–2.0**	**4.4**	**3.9**	**2.7**
Albania	4.7	1.0	1.8	2.2	3.3	3.8	4.1	2.2	–3.5	5.0	4.0	3.5
Belarus	7.1	1.0	1.7	–3.8	–2.5	2.5	3.1	1.4	–0.9	–0.4	0.8	1.4
Bosnia and Herzegovina	3.1	2.4	1.1	3.1	3.1	3.2	3.7	2.8	–5.5	3.5	3.2	3.0
Bulgaria	3.8	0.3	1.9	4.0	3.8	3.5	3.1	3.7	–3.8	4.4	4.4	2.8
Croatia	1.4	–0.4	–0.3	2.4	3.5	3.4	2.8	2.9	–9.0	4.7	5.0	3.0
Hungary	1.3	1.9	4.2	3.8	2.1	4.3	5.4	4.6	–5.0	4.3	5.9	2.6
Kosovo	4.3	3.4	1.2	4.1	4.1	4.2	3.8	4.9	–6.0	4.5	5.5	4.0
Moldova	4.3	9.0	5.0	–0.3	4.4	4.7	4.0	3.6	–7.5	4.5	4.0	4.2
Montenegro	3.0	3.5	1.8	3.4	2.9	4.7	5.1	4.1	–15.2	9.0	5.5	3.0
North Macedonia	3.3	2.9	3.6	3.9	2.8	1.1	2.9	3.2	–4.5	3.8	4.0	3.5
Poland	4.2	1.1	3.4	4.2	3.1	4.8	5.4	4.5	–2.7	3.5	4.5	2.6
Romania	3.5	3.8	3.6	3.0	4.7	7.3	4.5	4.1	–3.9	6.0	4.8	3.5
Russia	4.8	1.8	0.7	–2.0	0.2	1.8	2.8	2.0	–3.1	3.8	3.8	1.8
Serbia	3.9	2.9	–1.6	1.8	3.3	2.1	4.5	4.2	–1.0	5.0	4.5	4.0
Turkey[1]	5.6	8.5	4.9	6.1	3.3	7.5	3.0	0.9	1.8	6.0	3.5	3.5
Ukraine[1]	3.4	0.0	–6.6	–9.8	2.4	2.5	3.4	3.2	–4.2	4.0	3.4	4.0
Latin America and the Caribbean	**3.9**	**2.9**	**1.3**	**0.4**	**–0.6**	**1.3**	**1.2**	**0.2**	**–7.0**	**4.6**	**3.1**	**2.4**
Antigua and Barbuda	1.9	–0.6	3.8	3.8	5.5	3.1	7.0	3.4	–17.3	–3.0	11.9	3.0
Argentina	5.6	2.4	–2.5	2.7	–2.1	2.8	–2.6	–2.1	–10.0	5.8	2.5	1.5
Aruba	0.1	4.2	0.9	–0.4	0.5	2.3	1.2	0.4	–25.5	5.0	12.0	1.4
The Bahamas	0.5	–2.7	1.1	0.2	1.4	3.1	3.0	1.2	–16.3	2.0	8.5	1.5
Barbados	0.7	–1.4	–0.1	2.4	2.5	0.5	–0.6	–0.1	–17.6	4.1	7.7	1.8
Belize	3.2	1.3	4.0	2.6	0.0	1.8	2.9	1.8	–14.1	1.9	6.4	2.0
Bolivia	4.5	6.8	5.5	4.9	4.3	4.2	4.2	2.2	–7.7	5.5	4.2	3.4
Brazil	3.8	3.0	0.5	–3.5	–3.3	1.3	1.8	1.4	–4.1	3.7	2.6	2.0
Chile	4.7	4.0	1.8	2.3	1.7	1.2	3.7	1.0	–5.8	6.2	3.8	2.5
Colombia	4.7	5.1	4.5	3.0	2.1	1.4	2.6	3.3	–6.8	5.1	3.6	3.6

Table A5. Summary of Inflation

(Percent)

	Average 2003–12	2013	2014	2015	2016	2017	2018	2019	2020	Projections 2021	2022	2026
GDP Deflators												
Advanced Economies	**1.6**	**1.3**	**1.4**	**1.2**	**1.0**	**1.5**	**1.7**	**1.5**	**1.4**	**1.5**	**1.5**	**1.7**
United States	2.1	1.8	1.9	1.0	1.0	1.9	2.4	1.8	1.2	1.8	2.3	1.9
Euro Area	1.7	1.2	0.9	1.4	0.9	1.1	1.4	1.7	1.5	1.3	1.4	1.8
Japan	–1.1	–0.4	1.7	2.1	0.4	–0.1	0.0	0.6	0.9	0.6	0.5	0.5
Other Advanced Economies[1]	2.1	1.5	1.4	1.2	1.3	2.0	1.7	1.3	1.8	1.5	0.7	1.8
Consumer Prices												
Advanced Economies	**2.0**	**1.4**	**1.4**	**0.3**	**0.7**	**1.7**	**2.0**	**1.4**	**0.7**	**1.6**	**1.7**	**1.9**
United States	2.5	1.5	1.6	0.1	1.3	2.1	2.4	1.8	1.2	2.3	2.4	2.2
Euro Area[2]	2.1	1.4	0.4	0.2	0.2	1.5	1.8	1.2	0.3	1.4	1.2	1.8
Japan	–0.1	0.3	2.8	0.8	–0.1	0.5	1.0	0.5	0.0	0.1	0.7	1.0
Other Advanced Economies[1]	2.3	1.7	1.5	0.5	0.9	1.8	1.9	1.4	0.6	1.4	1.4	1.9
Emerging Market and Developing Economies[3]	**6.4**	**5.4**	**4.7**	**4.7**	**4.3**	**4.4**	**4.9**	**5.1**	**5.1**	**4.9**	**4.4**	**3.8**
Regional Groups												
Emerging and Developing Asia	4.8	4.6	3.4	2.7	2.8	2.4	2.7	3.3	3.1	2.3	2.7	2.7
Emerging and Developing Europe	8.8	5.5	6.5	10.6	5.5	5.6	6.4	6.6	5.4	6.5	5.4	5.4
Latin America and the Caribbean	5.4	4.6	4.9	5.4	5.5	6.3	6.6	7.7	6.4	7.2	6.6	4.0
Middle East and Central Asia	7.9	8.3	6.4	5.5	5.7	6.9	9.5	7.4	10.2	11.2	8.1	6.4
Sub-Saharan Africa	9.2	6.5	6.3	6.8	10.4	10.7	8.4	8.5	10.8	9.8	7.8	6.0
Analytical Groups												
By Source of Export Earnings												
Fuel	8.2	8.2	5.6	5.6	7.6	6.4	8.4	6.5	9.0	11.0	8.5	6.9
Nonfuel	6.0	5.0	4.5	4.6	3.9	4.2	4.5	4.9	4.7	4.3	4.0	3.5
Of Which, Primary Products[4]	6.3	6.4	7.0	5.2	6.2	11.7	14.2	17.9	19.5	19.1	13.7	6.0
By External Financing Source												
Net Debtor Economies	7.1	6.1	5.6	5.4	5.2	5.6	5.5	5.3	5.8	5.8	4.9	4.4
Net Debtor Economies by Debt-Servicing Experience												
Economies with Arrears and/or Rescheduling during 2015–19	9.4	6.1	10.0	15.0	10.0	17.3	16.9	13.6	16.5	15.8	9.6	6.1
Other Groups												
European Union	2.4	1.4	0.4	0.1	0.2	1.6	1.8	1.4	0.7	1.6	1.4	1.9
Middle East and North Africa	7.6	8.7	6.3	5.6	5.5	7.0	10.7	7.6	10.6	12.4	8.5	6.8
Emerging Market and Middle-Income Economies	6.1	5.2	4.5	4.6	4.0	4.0	4.5	4.8	4.5	4.4	4.1	3.6
Low-Income Developing Countries	9.9	7.8	7.2	6.5	8.4	9.2	8.8	8.4	11.7	11.2	7.8	5.7
Memorandum												
Median Inflation Rate												
Advanced Economies	2.3	1.4	0.7	0.1	0.6	1.6	1.8	1.5	0.4	1.4	1.5	1.9
Emerging Market and Developing Economies[3]	5.3	3.7	3.1	2.6	2.7	3.3	3.1	2.7	2.8	3.1	3.1	3.0

[1]Excludes the United States, euro area countries, and Japan.
[2]Based on Eurostat's harmonized index of consumer prices.
[3]Excludes Venezuela but includes Argentina from 2017 onward. See country-specific notes for Argentina and Venezuela in the "Country Notes" section of the Statistical Appendix.
[4]Includes Argentina from 2017 onward. See country-specific note for Argentina in the "Country Notes" section of the Statistical Appendix.

Table A6. Advanced Economies: Consumer Prices[1]

(Annual percent change)

													End of Period[2]		
										Projections				Projections	
	Average 2003–12	2013	2014	2015	2016	2017	2018	2019	2020	2021	2022	2026	2020	2021	2022
Advanced Economies	**2.0**	**1.4**	**1.4**	**0.3**	**0.7**	**1.7**	**2.0**	**1.4**	**0.7**	**1.6**	**1.7**	**1.9**	**0.5**	**1.9**	**1.7**
United States	2.5	1.5	1.6	0.1	1.3	2.1	2.4	1.8	1.2	2.3	2.4	2.2	1.4	2.3	2.5
Euro Area[3]	2.1	1.4	0.4	0.2	0.2	1.5	1.8	1.2	0.3	1.4	1.2	1.8	–0.3	1.8	1.2
Germany	1.8	1.6	0.8	0.7	0.4	1.7	1.9	1.4	0.4	2.2	1.1	2.1	–0.7	3.1	1.0
France	1.9	1.0	0.6	0.1	0.3	1.2	2.1	1.3	0.5	1.1	1.2	1.6	–0.1	1.3	1.4
Italy	2.4	1.2	0.2	0.1	–0.1	1.3	1.2	0.6	–0.1	0.8	0.9	1.3	–0.3	0.8	0.9
Spain	2.7	1.4	–0.2	–0.5	–0.2	2.0	1.7	0.7	–0.3	1.0	1.3	1.7	–0.5	1.3	1.4
The Netherlands	1.8	2.6	0.3	0.2	0.1	1.3	1.6	2.7	1.1	1.4	1.5	1.8	0.9	1.4	1.5
Belgium	2.3	1.2	0.5	0.6	1.8	2.2	2.3	1.2	0.4	1.7	1.9	1.8	0.4	2.1	1.6
Austria	2.1	2.1	1.5	0.8	1.0	2.2	2.1	1.5	1.4	1.6	1.8	2.0	1.0	1.9	1.8
Ireland	1.7	0.5	0.3	0.0	–0.2	0.3	0.7	0.9	–0.5	1.6	1.9	2.0	–1.0	2.0	2.0
Portugal	2.3	0.4	–0.2	0.5	0.6	1.6	1.2	0.3	–0.1	0.9	1.2	1.6	0.0	0.8	1.2
Greece	3.1	–0.9	–1.4	–1.1	0.0	1.1	0.8	0.5	–1.3	0.2	0.8	1.9	–2.4	0.8	0.8
Finland	1.9	2.2	1.2	–0.2	0.4	0.8	1.2	1.1	0.4	1.4	1.5	1.9	0.2	1.6	1.5
Slovak Republic	3.8	1.5	–0.1	–0.3	–0.5	1.4	2.5	2.8	2.0	1.2	1.9	2.0	1.6	1.5	1.9
Lithuania	3.6	1.2	0.2	–0.7	0.7	3.7	2.5	2.2	1.1	1.5	1.9	2.1	–0.1	1.5	1.9
Slovenia	3.0	1.8	0.2	–0.5	–0.1	1.4	1.7	1.6	–0.1	0.8	1.5	2.1	–1.1	1.7	1.3
Luxembourg	2.9	1.7	0.7	0.1	0.0	2.1	2.0	1.7	0.0	0.9	1.8	1.9	–0.4	1.3	1.7
Latvia	5.6	0.0	0.7	0.2	0.1	2.9	2.6	2.7	0.1	2.1	2.2	2.2	–0.5	3.9	1.8
Estonia	4.2	3.2	0.5	0.1	0.8	3.7	3.4	2.3	–0.6	1.8	2.5	1.9	–0.9	1.8	2.5
Cyprus	2.6	0.4	–0.3	–1.5	–1.2	0.7	0.8	0.6	–1.1	0.5	0.8	1.9	–0.8	1.0	0.8
Malta	2.5	1.0	0.8	1.2	0.9	1.3	1.7	1.5	0.8	1.1	1.4	2.0	0.2	1.7	1.5
Japan	–0.1	0.3	2.8	0.8	–0.1	0.5	1.0	0.5	0.0	0.1	0.7	1.0	–0.9	1.2	0.2
United Kingdom	2.6	2.6	1.5	0.0	0.7	2.7	2.5	1.8	0.9	1.5	1.9	2.0	0.5	2.1	1.8
Korea	3.1	1.3	1.3	0.7	1.0	1.9	1.5	0.4	0.5	1.4	0.9	2.0	0.5	1.2	1.0
Canada	2.0	0.9	1.9	1.1	1.4	1.6	2.3	1.9	0.7	1.7	2.0	2.0	0.8	1.6	2.2
Australia	2.8	2.5	2.5	1.5	1.3	2.0	1.9	1.6	0.9	1.7	1.6	2.4	0.9	1.5	1.7
Taiwan Province of China	1.3	1.0	1.3	–0.6	1.0	1.1	1.5	0.5	–0.2	0.9	1.2	1.4	0.1	0.9	1.2
Switzerland	0.7	–0.2	0.0	–1.1	–0.4	0.5	0.9	0.4	–0.7	0.1	0.3	1.0	–0.8	0.1	0.6
Singapore	2.5	2.4	1.0	–0.5	–0.5	0.6	0.4	0.6	–0.2	0.2	0.8	1.5	0.0	0.4	0.9
Sweden	1.7	0.4	0.2	0.7	1.1	1.9	2.0	1.6	0.7	1.5	1.2	1.9	0.4	1.5	1.2
Hong Kong SAR	1.8	4.3	4.4	3.0	2.4	1.5	2.4	2.9	0.3	1.4	1.9	2.4	0.3	1.4	1.9
Czech Republic	2.4	1.4	0.3	0.3	0.7	2.5	2.1	2.8	3.2	2.3	2.0	2.0	2.7	2.3	2.0
Israel	2.0	1.5	0.5	–0.6	–0.5	0.2	0.8	0.8	–0.6	0.3	0.6	0.9	–0.7	0.7	0.6
Norway	1.8	2.1	2.0	2.2	3.6	1.9	2.8	2.2	1.3	2.2	2.0	2.0	1.4	2.5	2.0
Denmark	2.0	0.5	0.4	0.2	0.0	1.1	0.7	0.7	0.3	1.1	1.4	1.8	0.4	1.1	1.4
New Zealand	2.6	1.1	1.2	0.3	0.6	1.9	1.6	1.6	1.7	1.8	1.6	2.2	1.4	2.1	1.7
Puerto Rico	3.1	1.1	0.6	–0.8	–0.3	1.8	1.3	0.1	–1.3	2.5	1.5	1.6	–1.3	2.5	1.5
Macao SAR	3.9	5.5	6.0	4.6	2.4	1.2	3.0	2.8	0.8	1.4	1.9	2.4	–0.9	1.4	1.9
Iceland	6.0	3.9	2.0	1.6	1.7	1.8	2.7	3.0	2.9	3.2	2.5	2.5	3.6	2.6	2.5
San Marino	2.3	1.6	1.1	0.1	0.6	1.0	1.8	1.0	0.2	0.8	0.9	1.1	0.5	0.8	0.9
Memorandum															
Major Advanced Economies	1.9	1.3	1.5	0.3	0.8	1.8	2.1	1.5	0.8	1.7	1.8	1.9	0.6	2.1	1.8

[1]Movements in consumer prices are shown as annual averages.
[2]Monthly year-over-year changes and, for several countries, on a quarterly basis.
[3]Based on Eurostat's harmonized index of consumer prices.

Table A7. Emerging Market and Developing Economies: Consumer Prices[1]

(Annual percent change)

	Average									Projections			End of Period[2]	Projections	
	2003–12	2013	2014	2015	2016	2017	2018	2019	2020	2021	2022	2026	2020	2021	2022
Emerging and Developing Europe	**8.8**	**5.5**	**6.5**	**10.6**	**5.5**	**5.6**	**6.4**	**6.6**	**5.4**	**6.5**	**5.4**	**5.4**	**6.5**	**5.8**	**5.4**
Albania	2.8	1.9	1.6	1.9	1.3	2.0	2.0	1.4	1.6	2.0	2.3	3.0	1.0	1.8	2.0
Belarus	20.8	18.3	18.1	13.5	11.8	6.0	4.9	5.6	5.5	6.9	5.5	5.0	7.3	5.9	5.4
Bosnia and Herzegovina	2.7	–0.1	–0.9	–1.0	–1.6	0.8	1.4	0.6	–0.6	1.2	1.0	2.1	–0.6	1.1	0.9
Bulgaria[3]	5.2	0.4	–1.6	–1.1	–1.3	1.2	2.6	2.5	1.2	1.0	2.0	2.0	0.0	1.9	2.0
Croatia	2.8	2.2	–0.2	–0.5	–1.1	1.1	1.5	0.8	0.3	0.7	1.2	1.6	0.1	0.9	1.6
Hungary	5.1	1.7	–0.2	–0.1	0.4	2.4	2.8	3.4	3.3	3.6	3.5	3.0	2.7	3.9	3.7
Kosovo	2.2	1.8	0.4	–0.5	0.3	1.5	1.1	2.7	0.2	0.3	1.5	1.9	0.1	1.1	1.6
Moldova	9.3	4.6	5.1	9.6	6.4	6.5	3.1	4.8	3.8	3.0	5.0	5.0	0.4	5.0	5.0
Montenegro	4.0	2.2	–0.7	1.5	–0.3	2.4	2.6	0.4	–0.2	0.4	1.0	1.7	–0.9	1.0	1.2
North Macedonia	2.2	2.8	–0.3	–0.3	–0.2	1.4	1.5	0.8	1.2	2.0	1.5	2.0	2.3	1.6	1.2
Poland	2.8	0.9	0.0	–0.9	–0.6	2.0	1.6	2.3	3.4	3.2	2.5	2.5	2.4	2.7	2.6
Romania	7.6	4.0	1.1	–0.6	–1.6	1.3	4.6	3.8	2.6	2.8	2.1	2.5	2.1	2.8	2.5
Russia	10.2	6.8	7.8	15.5	7.0	3.7	2.9	4.5	3.4	4.5	3.4	4.0	4.9	3.7	3.5
Serbia	9.1	7.7	2.1	1.4	1.1	3.1	2.0	1.9	1.7	2.2	2.4	3.0	1.7	2.3	2.4
Turkey[4]	10.0	7.5	8.9	7.7	7.8	11.1	16.3	15.2	12.3	13.6	11.8	11.0	14.6	12.5	11.5
Ukraine[4]	10.7	–0.3	12.1	48.7	13.9	14.4	10.9	7.9	2.7	7.9	6.8	5.0	5.0	7.2	6.0

Table A12. Emerging Market and Developing Economies: Current Account Balance

(Percent of GDP)

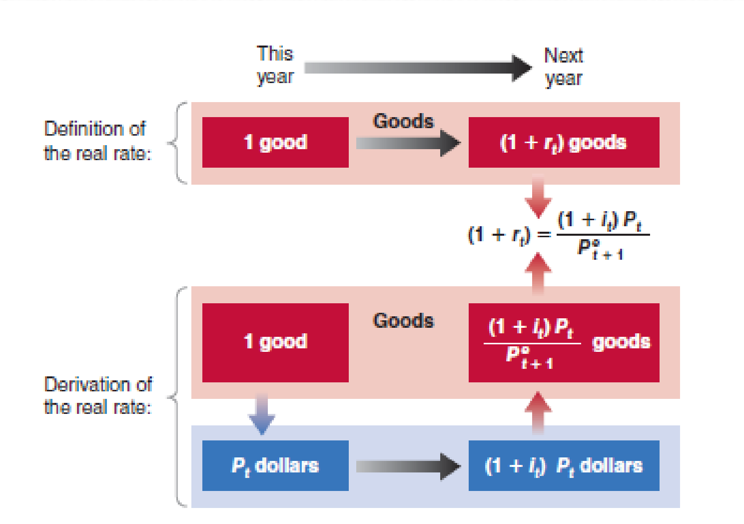
									Projections		
	2013	2014	2015	2016	2017	2018	2019	2020	2021	2022	2026
Emerging and Developing Europe	**–1.3**	**–0.3**	**1.0**	**–0.2**	**–0.5**	**1.7**	**1.3**	**0.0**	**0.6**	**0.4**	**–0.3**
Albania	–9.3	–10.8	–8.6	–7.6	–7.5	–6.8	–8.0	–9.6	–8.7	–8.3	–7.4
Belarus	–10.0	–6.6	–3.3	–3.4	–1.7	0.0	–2.0	0.1	–0.3	–1.7	–1.8
Bosnia and Herzegovina	–5.3	–7.4	–5.1	–4.8	–4.8	–3.4	–3.1	–3.5	–4.9	–4.3	–3.5
Bulgaria	1.3	1.2	0.1	3.2	3.5	1.0	3.0	0.1	1.4	1.2	0.8
Croatia	–1.1	0.3	3.3	2.1	3.4	1.8	2.8	–3.5	–2.3	–1.6	0.7
Hungary	3.5	1.2	2.3	4.5	2.0	0.3	–0.2	–0.2	–0.4	–0.3	–0.2
Kosovo	–3.4	–6.9	–8.6	–7.9	–5.4	–7.6	–5.5	–7.5	–6.4	–6.1	–5.0
Moldova	–5.2	–6.0	–6.0	–3.5	–5.7	–10.5	–9.4	–6.5	–7.0	–8.1	–7.1
Montenegro	–11.4	–12.4	–11.0	–16.2	–16.1	–17.0	–15.0	–25.9	–18.7	–12.0	–9.2
North Macedonia	–1.6	–0.5	–2.0	–2.9	–1.0	–0.1	–3.3	–3.5	–3.2	–2.8	–1.9
Poland	–1.8	–2.6	–0.9	–0.8	–0.4	–1.3	0.5	3.5	2.0	1.3	0.1
Romania	–0.8	–0.2	–0.6	–1.4	–2.8	–4.4	–4.7	–5.1	–5.0	–4.7	–4.0
Russia	1.5	2.8	5.0	1.9	2.0	7.0	3.8	2.2	3.9	3.3	2.1
Serbia	–5.7	–5.6	–3.5	–2.9	–5.2	–4.8	–6.9	–4.3	–5.7	–5.5	–5.0
Turkey[1]	–5.8	–4.1	–3.2	–3.1	–4.8	–2.8	0.9	–5.1	–3.4	–2.2	–1.7
Ukraine[1]	–9.2	–3.9	1.7	–1.5	–2.2	–3.3	–2.7	4.3	–2.5	–3.6	–3.8

Table A13. Summary of Financial Account Balances *(continued)*
(Billions of US dollars)

	2013	2014	2015	2016	2017	2018	2019	2020	Projections 2021	Projections 2022
Regional Groups										
Emerging and Developing Asia										
Financial Account Balance	27.8	153.5	69.9	–28.1	–55.9	–259.1	–81.6	261.8	237.4	177.4
Direct Investment, Net	–271.2	–201.6	–139.6	–26.2	–108.5	–169.7	–152.3	–183.2	–202.3	–209.3
Portfolio Investment, Net	–64.6	–125.2	81.6	31.1	–70.1	–99.6	–74.2	–66.1	–114.5	–153.8
Financial Derivatives, Net	–2.1	0.8	0.6	–4.6	2.2	4.6	–2.5	12.1	11.7	11.7
Other Investment, Net	–83.3	281.5	458.3	353.0	–79.9	–18.4	47.3	318.7	97.6	121.7
Change in Reserves	445.5	196.4	–331.5	–382.4	200.1	24.9	100.2	180.4	445.6	407.7
Emerging and Developing Europe										
Financial Account Balance	–66.6	–29.1	65.5	3.9	–19.2	99.3	63.4	16.4	50.1	43.3
Direct Investment, Net	–15.4	0.5	–22.0	–45.4	–28.8	–25.9	–46.9	–23.9	–41.0	–51.4
Portfolio Investment, Net	–38.0	23.2	55.0	–7.6	–34.6	13.1	–3.5	23.6	–11.8	–8.9
Financial Derivatives, Net	–0.9	5.8	5.0	0.4	–2.5	–2.9	1.5	–4.6	0.2	5.4
Other Investment, Net	–4.6	64.0	35.5	21.0	30.7	67.3	18.9	26.5	49.5	46.9
Change in Reserves	–7.6	–122.7	–7.9	35.6	16.2	47.6	93.4	–4.4	53.2	51.3

Nominalne i realne kamatne stope

- Nominalne kamatne stope izražene su u jedinicama nacionalne valute
- Realne kamatne stope izražavaju se korpom dobara



Grafici i sheme preuzeti iz: Blanchard, Macroeconomics, 6e

Nominalne i realne kamatne stope

- Realna kamatna stopa *r* jednaka je:

$$(1+r_t)=\frac{(1+i_t)P_t}{P_{t+1}^e}$$

- Gdje je *i* nominalna kamatna stopa a *P* cijena odgovarajuće korpe dobara u različitim vremenskim tačkama
- Očekivana inflacija jednaka je:

$$\pi_{t+1}^e=\frac{(P_{t+1}^e-P_t)}{P_t}$$

- Kombinacijom jednačina dobijamo:

$$(1+r_t)=\frac{1+i_t}{1+\pi_{t+1}^e}$$

- Realna kamatna stopa uvećana za 1 jednaka je nominalnoj kamatnoj stopi uvećanoj za 1 i podijeljenoj očekivanom stopom inflacije uvećanom za 1
- U slučaju promjena manjem obima, realna kamatna stopa jednaka je nominalnoj kamatnoj stopi umanjenoj za stopu očekivane inflacije

$$r_t\approx i_t-\pi_{t+1}^e$$

Nominalne i realne kamatne stope

- Ova jednačina, uz dodatne transformacije, ukazuje da:
  - Kada je očekivana stopa inflacije jednaka 0, nominalna i realna kamatna stopa su iste
  - Kad je očekivana inflacija pozitivna, realna kamatna stopa je niža od nominalne kamatne stope
  - Za datu nominalnu kamatnu stopu, što je veća stopa očekivane inflacije, niža je realna kamatna stopa

Nominalna i realna kamatna stopa i IS-LM model

- Kamatna stopa se u IS-LM modelu pojavljuje na dva mjesta – u IS relaciji kroz uticaj kamatnih stopa na investicije, a u LM relaciji kroz uticaj kamatnih stopa na potrošnju/štednju
- Firme, prilikom donošenja investicionih odluka, vode računa o realnoj kamatnoj stopi. Stoga IS kriva uzima u obzir realnu kamatnu stopu, odnosno, investicije i tražnja za dobrima zavise od *realne* kamatne stope

$$Y = C(Y - T) + I(Y, r) + G$$

Nominalna i realna kamatna stopa i IS-LM model

- U relaciji za LM krivu važno je naglasiti da kamatna stopa na koju direktno utiče monetarna politika je *nominalna* kamatna stopa, pa efekti monetarne politike na proizvodnju zavise od toga kako se kretanja nominalne kamatne stope prevode u kretanja realne kamatne stope.

$$\frac{M}{P} = YL(i)$$

- IS-LM model:

$$\text{IS: } Y = C(Y - T) + I(Y, r) + G$$

$$\text{LM: } \frac{M}{P} = YL(i)$$

$$r = i - \pi^e$$

IS-LM

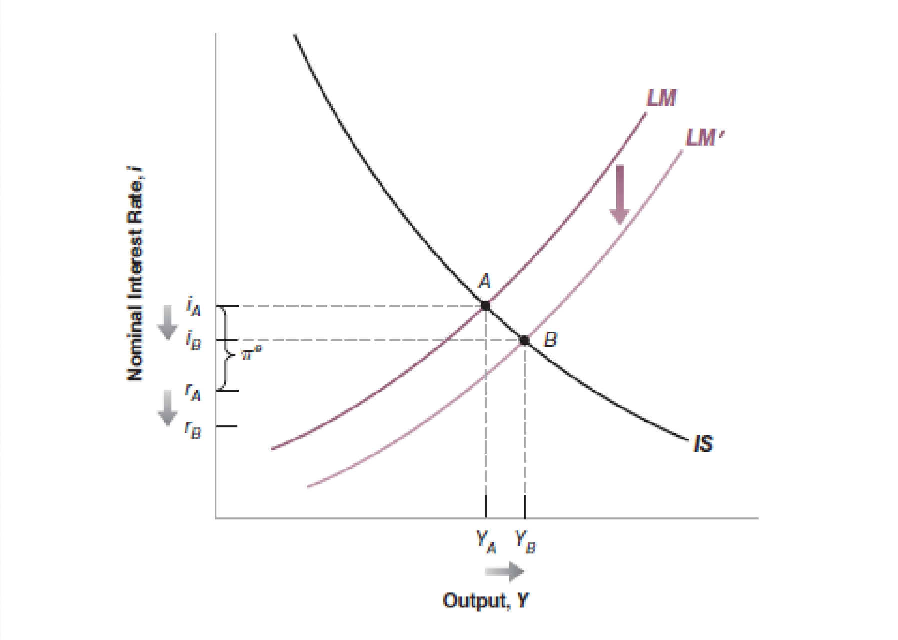
- Kamatna stopa na koju direktno utiče monetarna politika je *nominalna* kamatna stopa
- Kamatna stopa koja utiče na potrošnju i investicije je *realna* kamatna stopa
- Efekti monetarne politike na proizvodnju zavise od toga kako će se kretanja nominalne kamatne stope prevesti na kretanje realne kamatne stope

Rast novčane mase, inflacija, nominalna i realna kamatna stopa

- Rast novčane mase u kratkom roku smanjuje nominalne kamatne stope, ali ih u srednjem roku povećava
- Veća novčana masa u kratkom roku smanjuje realne kamatne stope ali u srednjem roku nema uticaja

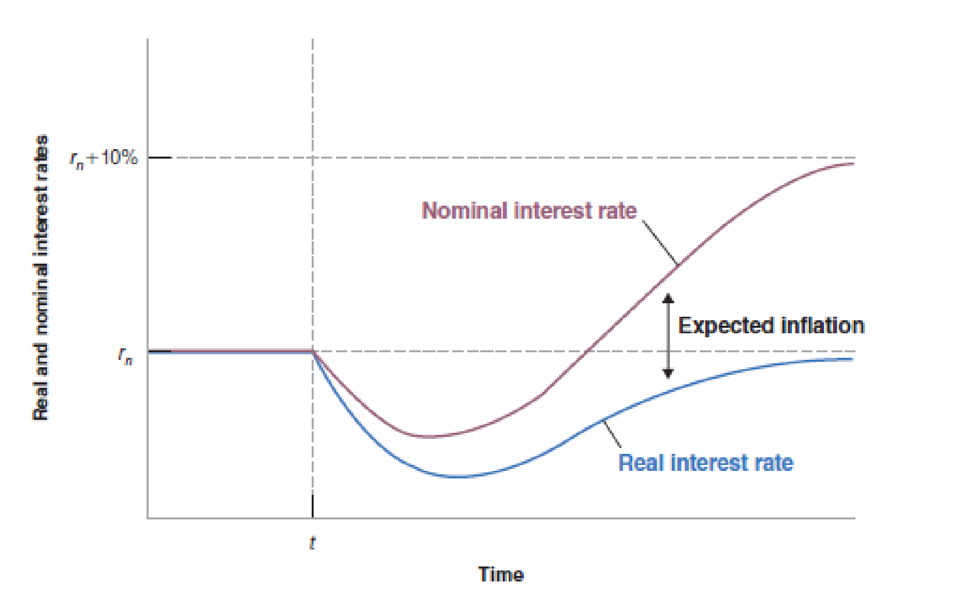
Nominalna i realna kamatna stopa u kratkom roku

- U kratkom roku, rast ponude novca neće biti praćen jednakim povećanjem nivoa cijena što dalje vodi smanjenju realnih kamatnih stopa
- Nominalna i realna ponuda novca rastu
- Rast ponude novca pomjera LM krivu i vodi rastu dohotka



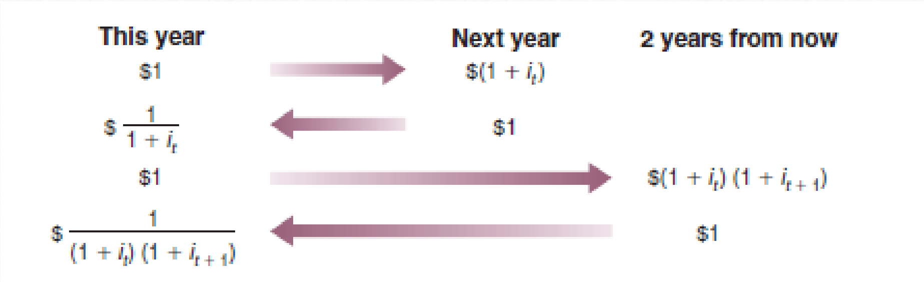
Nominalna i realna kamatna stopa u srednjem roku

- U srednjem roku, realna kamatna stopa se vraća na nivo prirodne kamatne stope, i ne zavisi od stope rasta novčane mase
- Inflacija je jednaka stopi rasta novčane mase umanjene za stopu rasta proizvodnje
- Ako je rast proizvodnje jednak nuli, stopa inflacije jednaka je stopi rasta novčane mase
- Fišerova hipoteza: u srednjem roku, nominalna kamatna stopa i stopa inflacije povećavaju se u istom procentu



Očekivane sadašnje diskontovane vrijednosti

- Sadasnja vrijednost budućih prihoda



- Sadašnja vrijednost pozitivno zavisi od današnjeg stvarnog plaćanja i očekivanih budućih prihoda, a negativno od sadašnjih i očekivanih budućih kamatnih stopa

Očekivane sadašnje diskontovane vrijednosti

- Sadasnja vrijednost budućih prihoda

$$V_t = z_t + \frac{1}{1+i_t} z_{t+1}^e + \frac{1}{(1+i_t)(1+i_{t+1})} z_{t+2}^e + ...$$

Primjer 1.

- Izračunati sadašnju vrijednost prihoda ostvarenih u periodu od 2 godine, ako se prihodi ostvaruju krajem svake godine u iznosu od 1000€, a kamatna stopa na godišnjem nivou iznosi 5%

$$SV = \frac{1000}{1 + 0,05} + \frac{1000}{(1 + 0,05)^2} = 1859,4$$

Primjer 1a.

- Izračunati sadašnju vrijednost prihoda iz prethodnog primjera ako se kamatna stopa poveća na 7%

$$SV = \frac{1000}{1 + 0{,}07} + \frac{1000}{(1 + 0{,}07)^2} = 1808$$

Finansijska tržišta i očekivanja

- Kriva prinosa na HoV

- Cijena akcija
  - Očekivani profit (očekivane dividende)

- Cijena obveznica
  - Sadašnja vrijednost

Cijene obveznica i prinosi na obveznice

- Rizik neplaćanja
- Dospijeće

$$P_{1t} = \frac{1}{1 + i_{1t}}$$

$$P_{2t} = \frac{1}{(1 + i_{1t})(1 + i^{e}_{1t+1})}$$

- Kriva prinosa – vremenska struktura kamatnih stopa

Tržište akcija i kretanje cijene akcija

- Akcije – izvor obezbjedjenja kapitala
- Dividende
- Kapitalna dobit
- Cijena akcija

$$Q_t = \frac{D^e_{t+1}}{1 + i_{1t}} + \frac{D^e_{t+2}}{(1 + i_{1t})(1 + i^e_{1t+1})} + \cdots$$

Tržište akcija i kretanje cijene akcija

- Ako nominalne zamijenimo realnim kamatnim stopama

$$Q_t = \frac{D_{t+1}^e}{1 + r_{1t}} + \frac{D_{t+2}^e}{(1 + r_{1t})(1 + r_{1t+1}^e)} + \cdots$$

- Više očekivane buduće realne dividende dovode do više realne cijene akcija
- Više tekuće i očekivane buduće jednogodišnje realne kamatne stope dovode do niže realne cijene akcija

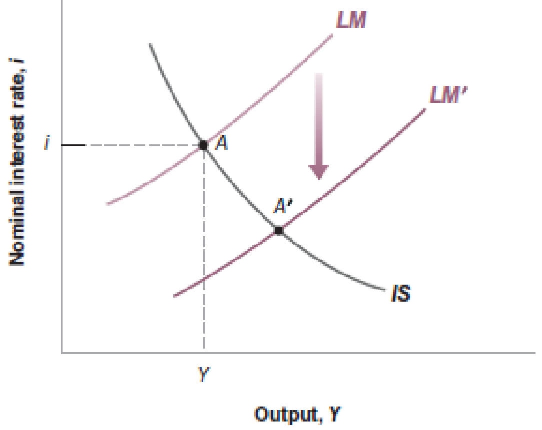
Monetarna ekspanzija i tržište akcija

- Pad kamatnih stopa i rast proizvodnje vodi rastu cijena akcija

Figure 15-8

An Expansionary Monetary Policy and the Stock Market

A monetary expansion decreases the interest rate and increases output. What it does to the stock market depends on whether or not financial markets anticipated the monetary expansion.



Rast potrošnje i tržište akcija

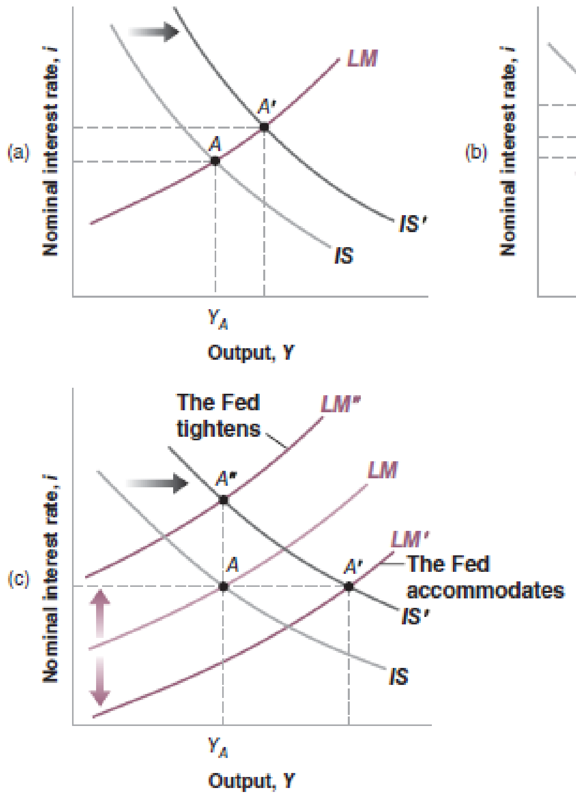


Figure 15-9

An Increase in Consumption Spending and the Stock Market

Panel (a) The increase in consumption spending leads to a higher interest rate and a higher level of output. What happens to the stock market depends on the slope of the LM curve and on the Fed's behavior:

Panel (b) If the LM curve is steep, the interest rate increases a lot, and output increases little. Stock prices go down. If the LM curve is flat, the interest rate increases little, and output increases a lot. Stock prices go up.

Panel (c) If the Fed accommodates, the interest rate does not increase, but output does. Stock prices go up. If the Fed decides instead to keep output constant, the interest rate increases, but output does not. Stock prices go down.