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### What you will learn in this chapter:

- An overview of macroeconomics, the study of the economy as a whole, and how it differs from microeconomics
- The importance of the **business cycle** and why policy-makers seek to diminish the severity of business cycles
- What **long-run growth** is and how it determines a country's standard of living
- The meaning of **inflation** and **deflation** and why **price stability** is preferred
- What is special about the macroeconomics of an **open economy**, an economy that trades goods, services and assets with other countries

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### Macroeconomics vs. Microeconomics

To understand the scope and sweep of macroeconomics, let's begin by looking more carefully at the difference between microeconomic and macroeconomic questions.

MICROECONOMIC QUESTION	MACROECONOMIC QUESTION
Go to business school or take a job?	How many people are employed in the economy as a whole?
What determines the salary offered by Citibank to Cherie Camajo, a new Columbia MBA?	What determines the overall salary levels paid to workers in a given year?

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## Macroeconomics vs. Microeconomics

MICROECONOMIC QUESTION	MACROECONOMIC QUESTION
What determines the cost to a university or college of offering a new course?	What determines the overall level of prices in the economy as a whole?
What government policies should be adopted to make it easier for low-income students to attend college?	What government policies should be adopted to promote full employment and growth in the economy as a whole?
What determines whether Citibank opens a new office in Shanghai?	What determines the overall trade in goods, services and financial assets between the US and the rest of the world?

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## Macroeconomics vs. Microeconomics

- **Microeconomics** focuses on how decisions are made by individuals and firms and the consequences of those decisions.
  - Ex.: How much it would cost for a university or college to offer a new course – the cost of the instructor's salary, the classroom facilities, the class materials, and so on.
- Having determined the cost, the school can then decide whether or not to offer the course by weighing the costs and benefits.

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## Macroeconomics vs. Microeconomics

- **Macroeconomics** examines the *aggregate* behavior of the economy (i.e. how the actions of all the individuals and firms in the economy interact to produce a particular level of economic performance as a whole).
  - Ex.: Overall level of prices in the economy (how high or how low they are relative to prices last year) rather than the price of a particular good or service.

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## Four Principal Ways that Macroeconomics Differs from Microeconomics:

1. In macroeconomics, the behavior of the whole macroeconomy is, indeed, **greater than the sum** of individual actions and market outcomes.
2. Macroeconomics is widely viewed as providing a rationale for continual **government intervention** to manage short-term fluctuations and adverse events in the economy.
  - *monetary policy*
  - *fiscal policy*

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## Four Principal Ways that Macroeconomics Differs from Microeconomics (cont.):

3. Macroeconomics is the study of **long-run growth**: What factors lead to a higher long-run growth rate? And are there government policies capable of increasing the long-run growth rate?
4. The theory and policy implementation focus on **economic aggregates** -- economic measures that summarize data across many different markets for goods, services, workers, and assets.

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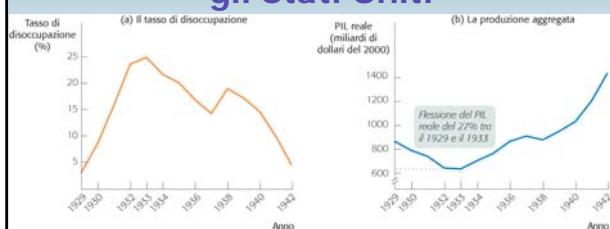
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## La Grande Depressione gli Stati Uniti



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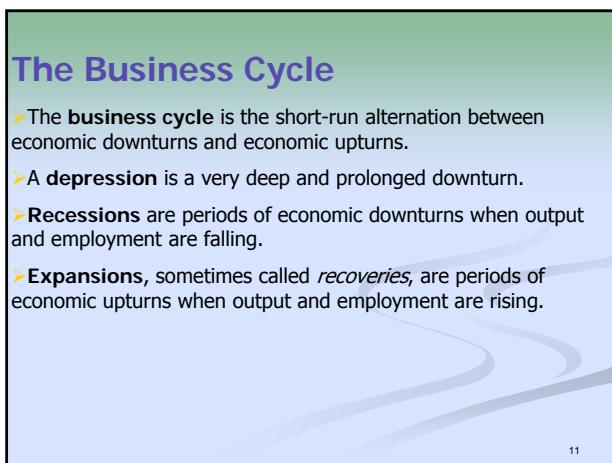
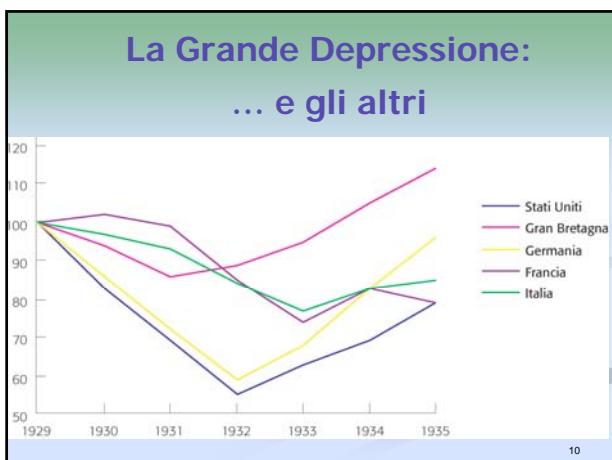
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## FOR INQUIRING MINDS: Defining Recessions and Expansions

- In many countries, economists adopt the rule that a recession is a period of at least 6 months, or two quarters, during which aggregate output falls.
  - sometimes too strict
- In the United States, the task of determining when a recession begins and ends is assigned to an independent panel of experts at the National Bureau of Economic Research (NBER). This panel looks at a number of economic indicators, with the main focus on employment and production, but ultimately the panel makes a judgment call.
  - sometimes controversial

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## The Business Cycle

What happens during a business cycle, and what can be done about it?

- the effects of recessions and expansions on unemployment;
- the effects on aggregate output; and
- the possible role of government policy.

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## Employment and Unemployment

- **Employment** is the number of people working in the economy.
- **Unemployment** is the number of people who are actively looking for work but aren't currently employed.
- The **labor force** is equal to the sum of employment and unemployment.

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## Employment and Unemployment

- **Discouraged workers** are non-working people who are capable of working but are not actively looking for a job (not included in labor force).
- **Underemployment** is the number of people who work during a recession but receive lower wages than they would during an expansion due to smaller number of hours worked, lower-paying jobs, or both.
- The **unemployment rate** is the ratio of the number of people unemployed to the total number of people in the labor force, either currently working or looking for jobs.

$$\text{Unemployment rate} = \frac{\text{Number of unemployed workers}}{\text{Number of unemployed workers} + \text{Number of employed workers}} \times 100$$

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## Underemployment



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## The Effects of Recessions and Expansions on Unemployment and Aggregate Output:

In general, the **unemployment rate** rises during recessions and falls during expansions.

It moves in the direction opposite to **aggregate output** (= total production of goods and services – real GNP), which falls during recessions and rises during expansions.

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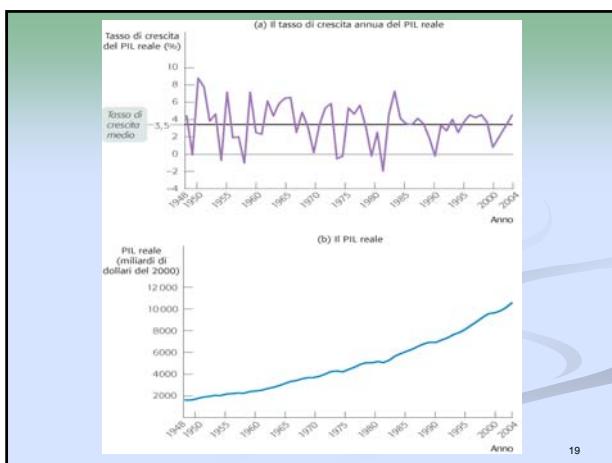
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## Taming the Business Cycle

Policy efforts undertaken to reduce the severity of recessions are called **stabilization policy**.

- One type of stabilization policy is **monetary policy**, changes in the quantity of money or the interest rate.
- The second type of stabilization policy is **fiscal policy**, changes in tax policy or government spending, or both.

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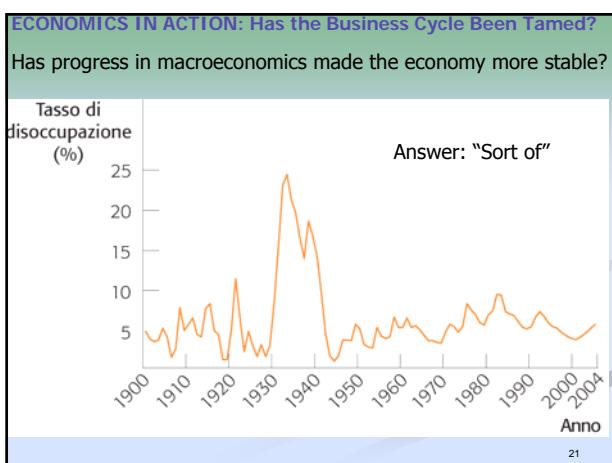
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## Long-Run Economic Growth

**Secular long-run growth**, or **long-run growth**, is the sustained upward trend in aggregate output or in aggregate output per person over several decades.

A country can achieve a permanent increase in the standard of living of its citizens only through long-run growth.

$$\text{GNP} \quad \text{and} \quad \text{GNP per capita} = (\text{GNP}/\text{POP})$$

So a central concern of macroeconomics is what determines long-run growth.

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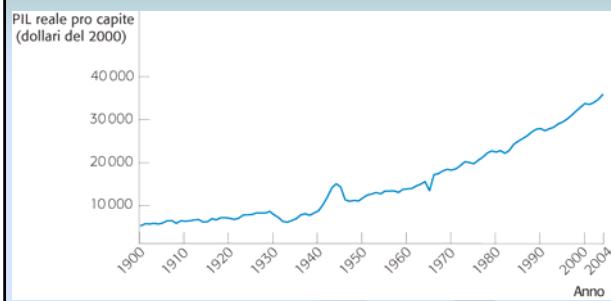
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## U.S. real gross domestic product per person from 1900 to 2004



In 2004 US real GDP per capita is 7 times bigger than in 1900 (US real GDP grew 20 times in the same period....why?)<sup>23</sup>

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## Aggregate Price Level

➤ A **nominal** measure is a measure that has not been adjusted for changes in prices over time.

➤ A **real** measure is a measure that has been adjusted for changes in prices over time.

➤ The **aggregate price level** is the overall level of prices in the economy. Two measures are usually utilized:

- The consumer price index
- The GDP deflator

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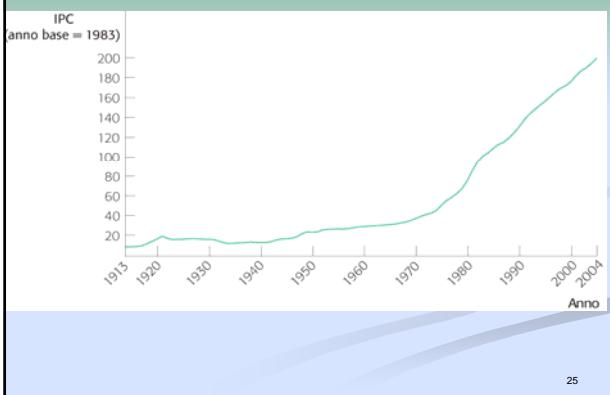
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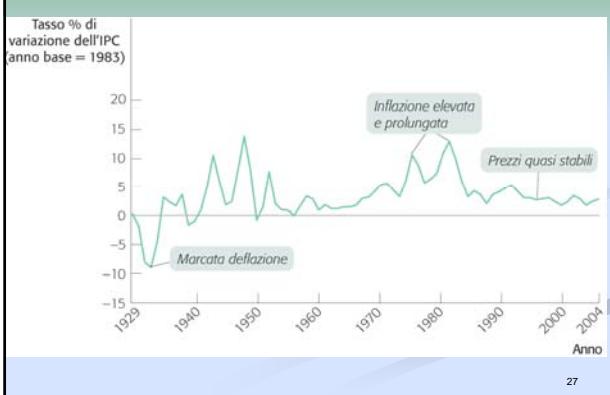
## Consumer price index from 1913 to 2004



## Inflation and Deflation

- A rising aggregate price level is **inflation**.
- A falling aggregate price level is **deflation**.
- The **inflation rate** is the annual percent change in the aggregate price level.
- The economy has **price stability** when the aggregate price level is changing only slowly.

## Price stability is desirable



## ECONOMICS IN ACTION: A Fast (Food) Measure of Inflation

- McDonald's opened in 1954: Hamburgers cost only 0.15 cents—25 cents with fries.
- Today a hamburger at a typical McDonald's costs five times as much—between \$0.70 and \$0.80.
- Too expensive?
- No—in fact, a burger is, compared with other consumer goods, a better bargain than it was in 1954. Burger prices have risen about 400%, from \$0.15 to about \$0.75, over the last half century. But the overall consumer price index has increased more than 600%.
- If McDonald's had matched the overall price level increase, a hamburger would now cost between 90 cents and \$1.00.

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## The Open Economy

- A **closed economy** is an economy that does not trade goods, services, and assets.
- **Open-economy macroeconomics** is the study of those aspects of macroeconomics that are affected by movements of goods, services, and assets across national boundaries.

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## The Open Economy

- One of the main concerns introduced by open-economy macroeconomics is the **exchange rate**, the price of one currency in terms of another.
- Exchange rates can affect the aggregate price level.
- They can also affect aggregate output through their effect on the **trade balance**, the difference between the value of the goods and services a country sells to other countries and the value of the goods and services it buys in return.
- Economists are also concerned about **capital flows**, movements of financial assets across borders.

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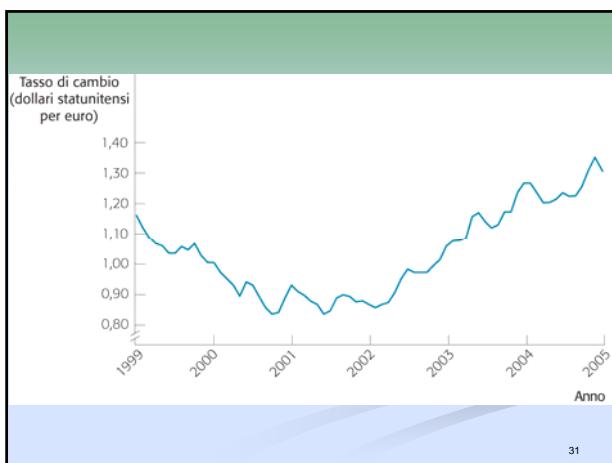
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Indice:

- Il contesto macroeconomico (il problema Italia all'interno del problema Europa)
- La performance internazionale:
  - la competitività di prezzo
  - il modello di specializzazione anomalo

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## Un applicazione: la crescita economica italiana

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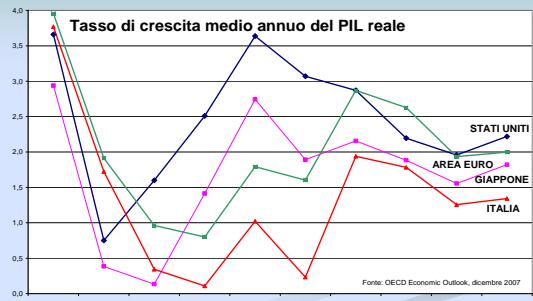
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## Il quadro macroeconomico

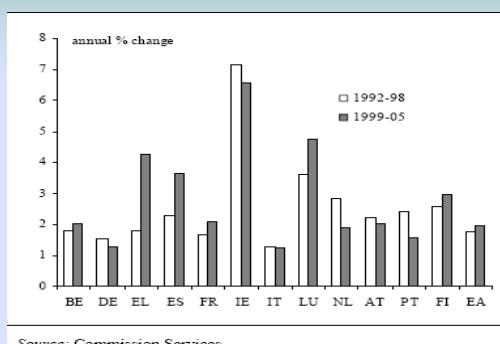
memo: crescita media annua 92-98 ITA=1,3; Area Euro=1,8  
crescita media annua 99-05 ITA=1,2; Area Euro=2,0



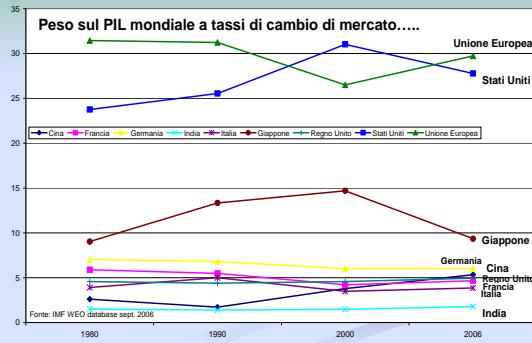
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## Da 15 anni fanalino di coda.....

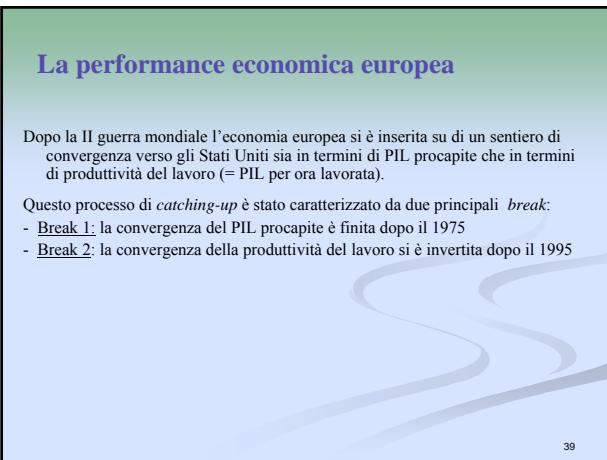
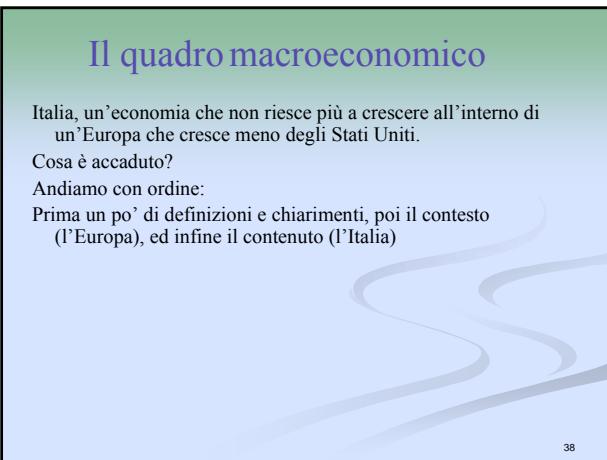
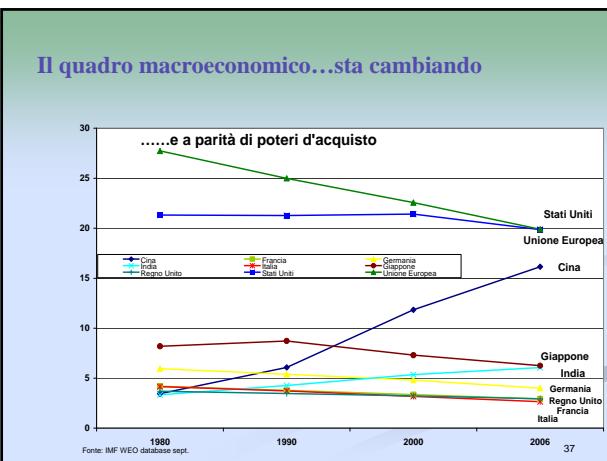
(crescita media annua del PIL reale)



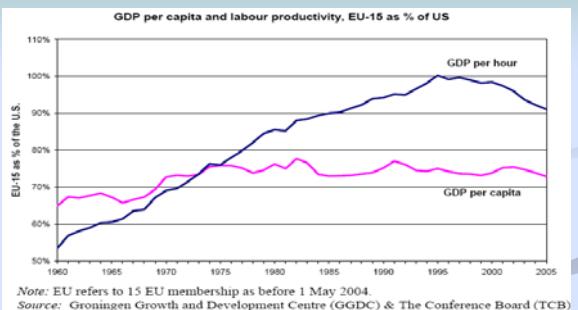
## Il quadro macroeconomico...sta cambiando



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## La performance economica europea



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## La performance economica europea

A spiegazione del primo *break* due approcci:

- a) "il bicchiere è mezzo vuoto"  
(Sapir Report)
- b) "il bicchiere è mezzo pieno"  
(Blanchard)

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## La performance economica europea

### - Mezzo vuoto

UE ha sperimentato:

*forte convergenza* nella produzione pro-capite per due decadi e mezzo

*debole convergenza* negli anni '70

*divergenza* dopo la metà anni '90

PIL UE sia nel 1970 che nel 2000 è circa il 70% di quello USA

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## La performance economica europea

### ■ Mezzo pieno

È vero, ma ciò è valido, almeno fino alla seconda metà degli anni '90, solo per la **PIL pro-capite**.  
Il quadro è molto meno negativo se guardiamo al **PIL per ora lavorata**: UE è circa 90% di quella US.  
La differenza è dovuta al fatto che gli europei occupati lavorano meno ore all'anno.

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## La performance economica europea

$$\Delta\%(\text{PIL}/\text{Pop}) = \\ = \Delta\%(\text{PIL}/\text{OreLav}) + \Delta\%(\text{OreLav}/\text{Pop})$$

Crescita del PIL pro-capite =  
Crescita produttività del lavoro per ora lavorata +  
Crescita ore lavorate pro-capite

La differenza è dovuta al fatto che gli europei lavorano meno ore all'anno.

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## La performance economica europea

### ■ Mezzo pieno (continua)

ad esempio, tra il 1970 ed il 2000 le ore lavorate per persona sono decresciute del 23% in Francia e cresciute del 26% negli Stati Uniti

Gli europei hanno "deciso" si dedicarsi maggiormente al tempo libero....

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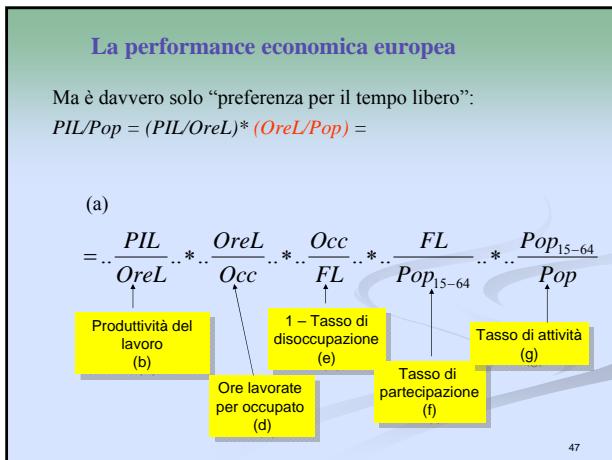
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### La performance economica europea

fonte: Gomez-Salvador, Muoso, Stocker, Turunen (2006)

**Table 2 Decomposition of annual growth in GDP per capita**

(Percentage percentage changes and percentage points per annum)

	GDP per capita (a) = b + c + d + e + f + g	GDP per hour worked (b) = c + d + e + f + g	Labor force millions (c)	Hours worked per person employed (d)	Unemployment rate (e)	Labour force participation (f)	Share of working age population in total population (g)
1981-1990							
Euro area	2.0	2.5	-0.5	-0.7	-0.2	-0.1	0.5
United States	2.2	1.4	0.8	-0.1	0.2	0.7	0.0
Gap US - EA	0.2	-1.1	1.3	0.6	0.4	0.8	-0.5
1991-2000							
Euro area	1.1	2.3	-1.2	-0.4	-0.6	-0.2	0.0
United States	1.2	1.1	0.0	0.2	0.0	0.0	-0.1
Gap US - EA	0.1	-1.2	1.2	0.6	0.6	0.2	-0.1
1999-2009							
Euro area	2.5	1.7	0.9	-0.4	0.5	0.8	-0.1
United States	2.6	2.1	0.8	0.2	0.3	0.6	0.2
Gap US - EA	0.4	0.5	-0.1	0.6	-0.2	-0.8	0.3
2000-2009							
Euro area	1.2	0.7	0.5	-0.2	-0.1	0.9	-0.1
United States	1.6	2.6	-1.0	-0.6	-0.2	-0.3	0.2
Gap US - EA	0.4	1.8	-1.4	-0.4	-0.2	-1.1	0.3

Sources: ECB calculations based on data from the European Commission, the OECD and the Groningen Growth and Development Centre (Total Economy Database, May 2006, <http://www.ggdc.net>).  
Note: Positive contribution from unemployment reflect a decline in the unemployment rate.

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## La performance economica europea

Perciò, la spiegazione basata sulle preferenze (Blanchard) è solo parziale.

Altri elementi che completano il quadro sono: le tasse (Prescott, 2004); il sistema europeo di welfare (Ljungqvist-Sargent, 2006); la tipologia delle relazioni industriali (Alesina, Glaeser, Sacerdote, 2006) etc.

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## La performance economica europea

Ma negli ultimi 10 anni anche la performance europea in termini di produttività del lavoro non è stata buona (*secondo break*).....

.....molto probabilmente per la più lenta diffusione delle Information Technologies

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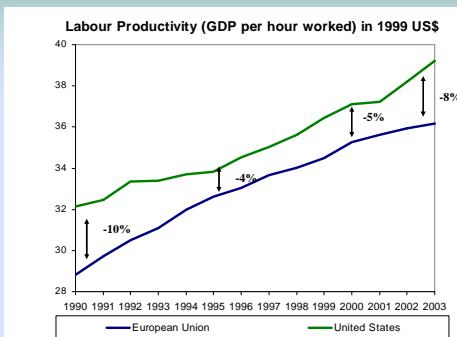
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## La performance economica europea

fonte: Ark (2004)



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## La performance economica europea

**TABLE 8.3** Relative productivity levels in the OECD, 1950-2004

Country	GDP per hour worked (United States = 100)					
	1950	1973	1980	1990	1995	2004
United States	100	100	100	100	100	100
Japan	15	47	55	68	72	73
Germany	39	76	88	94	104	92
France	46	77	88	103	106	107
Italy	43	83	97	104	115	92
United Kingdom	61	64	70	74	80	87
Canada	85	86	88	85	86	80
Australia	72	69	72	71	73	77
Austria	-	-	-	-	-	91
Belgium	59	85	102	110	113	113
Denmark	60	81	89	94	97	90
Finland	35	60	64	74	80	86
Ireland	-	46	58	74	83	104
Netherlands	59	92	106	112	113	100
New Zealand	-	71	71	65	65	59
Norway	57	79	101	115	128	125
Portugal	19	40	-	44	50	53
Spain	25	56	69	82	87	76
Sweden	58	79	83	81	84	88
Switzerland	86	96	101	95	86	82
Average excluding U.S.	41	68	78	85	91	86

Source: Authors' analysis of OECD (2003c and 2005b) data.

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## La performance economica europea

**TABLE 8.4** Labor productivity growth per year in OECD, 1960-2005

Country	1960-73	1973-79	1979-1989	1989-2000	2000-05
United States	2.6%	0.3%	1.2%	1.7%	2.5%
Japan	8.4	2.8	2.8	1.3	1.8
Germany	4.5	3.1	1.4	1.7	1.0
France	5.3	2.9	2.5	1.5	1.3
Italy	6.4	2.8	1.9	1.7	0.0
United Kingdom	4.0	1.6	1.8	1.8	2.0
Canada	2.5	1.1	1.0	1.5	1.3
Australia	3.0%	2.5%	1.1%	2.0%	0.8%
Austria	5.9	3.1	2.4	2.5	1.8
Belgium	5.2	2.7	2.4	1.6	1.2
Denmark	3.9	2.3	1.3	2.4	2.0
Finland	5.0	3.2	3.4	2.9	1.9
Ireland	4.8	4.3	4.1	3.7	3.1
Netherlands	4.8	2.6	1.6	1.4	0.9
New Zealand	2.1	-1.1	1.9	0.7	1.0
Norway	3.8	2.7	1.0	2.7	2.7
Portugal	7.5	0.5	2.2	2.1	0.4
Spain	5.9	2.8	2.7	1.4	0.4
Sweden	3.7	1.4	1.8	2.8	2.0
Switzerland	3.3	0.8	0.4	0.3	0.8

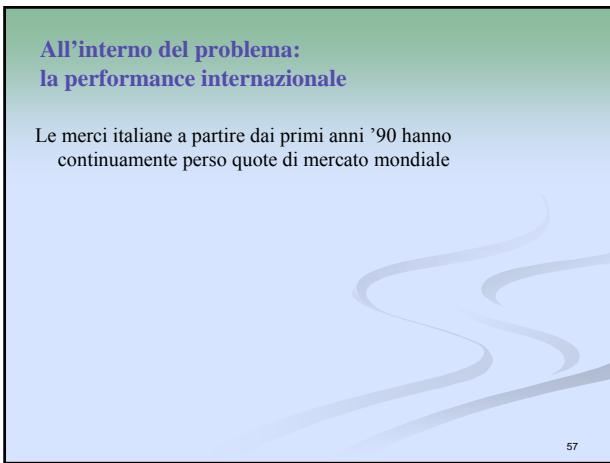
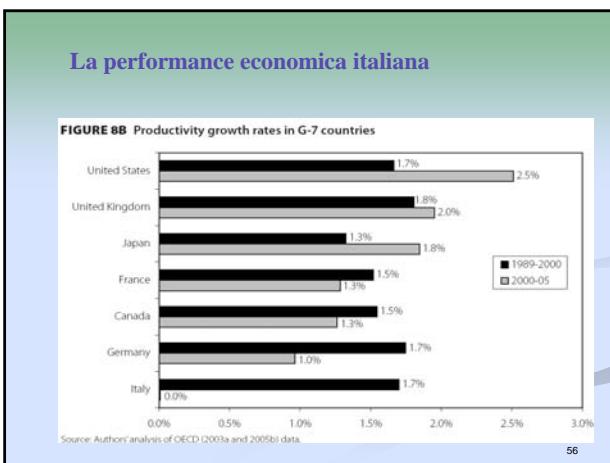
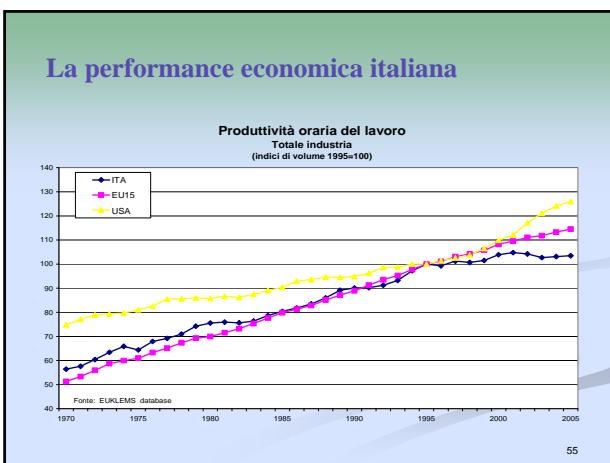
Source: Authors' analysis of OECD (1998, 2003a, and 2005a).

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## La performance economica: ..... e l'Italia?

Sotto questo profilo, l'economia italiana riproduce in peggio  
quello che abbiamo già visto per l'economia europea

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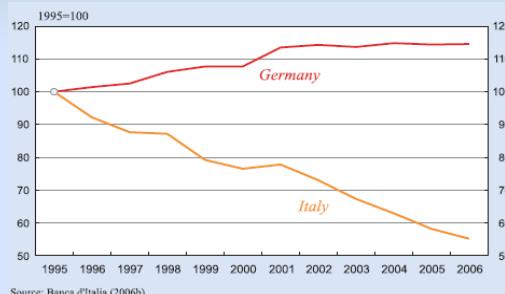
## All'interno del problema: la performance internazionale

La quota italiana sulle esportazioni di merci mondiali



## Quota delle esportazioni mondiali in volume

Fonte: EEAG Report 2007 da Banca d'Italia 2006



## All'interno del problema: la performance internazionale

Come mai le merci italiane hanno perso quote di mercato relative?

- a) perdita di competitività di prezzo
- b) struttura industriale anomala + emergere di nuovi concorrenti (non mi occuperò di questo)

## La performance internazionale

Table 1. Italy: CMS Analysis of Export Changes 1/ (in percent; unless otherwise indicated)	
1994-2004	
Exports (annual growth rate)	6.4
Contribution:	
World Trade Effect	8.6
Commodity Composition Effect	-1.0
Market Distribution Effect	0.6
Competitiveness	-1.8

Source: IMF Staff estimates.  
1/ Constant market share analysis based on the commodity composition of exports as of 1994.

Fonte: FMI (2007)

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## Perdita competitività di prezzo

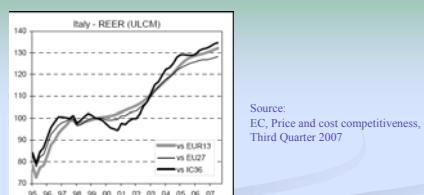
Negli ultimi dieci anni le merci italiane hanno subito una chiara perdita nella competitività di prezzo.

E' colpa dell'euro?

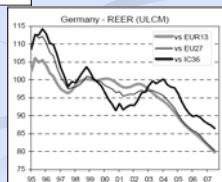
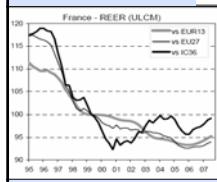
No, almeno non direttamente! Francia e Germania hanno sperimentato una migliore dinamica...

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Perdita di competitività di prezzo  
(tasso di cambio reale effettivo - clup)



Source:  
EC, Price and cost competitiveness,  
Third Quarter 2007



## Perdita competitività di prezzo

Memo: il tasso di cambio reale effettivo presentato è costruito a partire dal costo del lavoro per unità di prodotto (CLUP) e questo dipende da:

- + renumerazione del lavoro
- produttività del lavoro

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## Perdita di competitività di prezzo: la dinamica del costo del lavoro non c'entra

	1970-2004	1970-1979	1980-1990	1991-2004	1998-2004
BE	2.9	3.6	2.1	1.7	1.4
DE	2.3	2.8	1.7	1.6	1.0
GR	-	-	-	-	-
ES	2.5	3.8	2.6	0.8	0.1
FR	2.4	3.1	1.8	1.6	2.2
IE	2.9	3.5	2.4	2.0	1.6
IT	1.8	2.7	1.2	0.5	0.1
LU	-	-	-	-	-
NL	1.9	2.5	1.4	1.3	1.3
AT	-	-	-	-	-
PT	-	-	-	-	-
FI	2.8	3.6	3.1	1.4	2.0
EA	2.4	3.0	1.9	1.4	0.6
US	1.4	1.0	0.9	1.8	2.8

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## Perdita competitività di prezzo

E allora deve esserci stato qualche problema con l'evoluzione della produttività del lavoro

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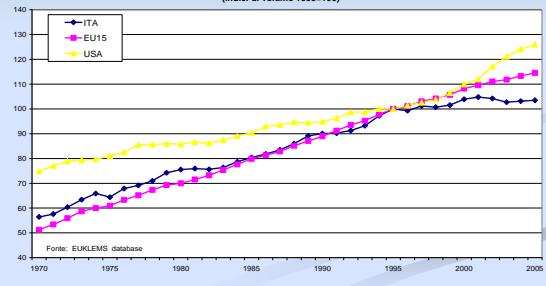
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Perdita di competitività di prezzo: infatti, come abbiamo già visto

Produttività oraria del lavoro  
Totale industria  
(Indici di volume 1995=100)



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