Building blocks: the market for goods and services and comparative statics

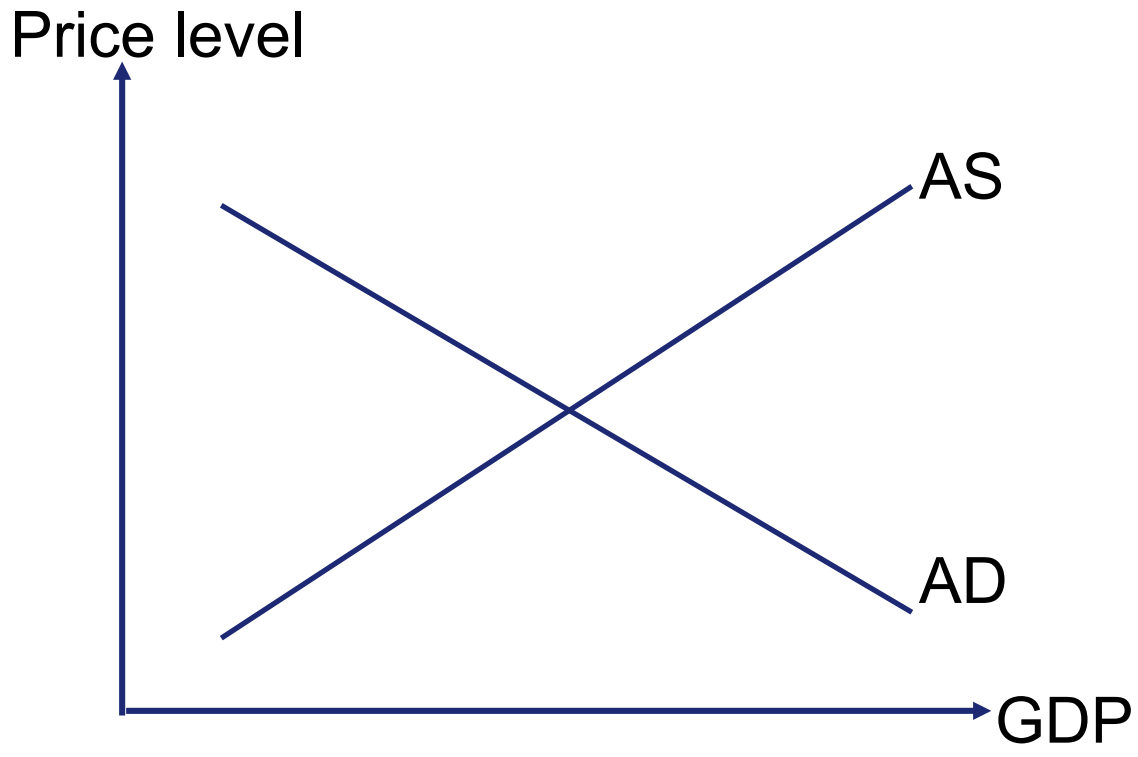
Chapter 2

Chapter 2.1

The market for goods and services

What is the market for Goods and Services?

- GDP emerges from the interaction between demand and supply.



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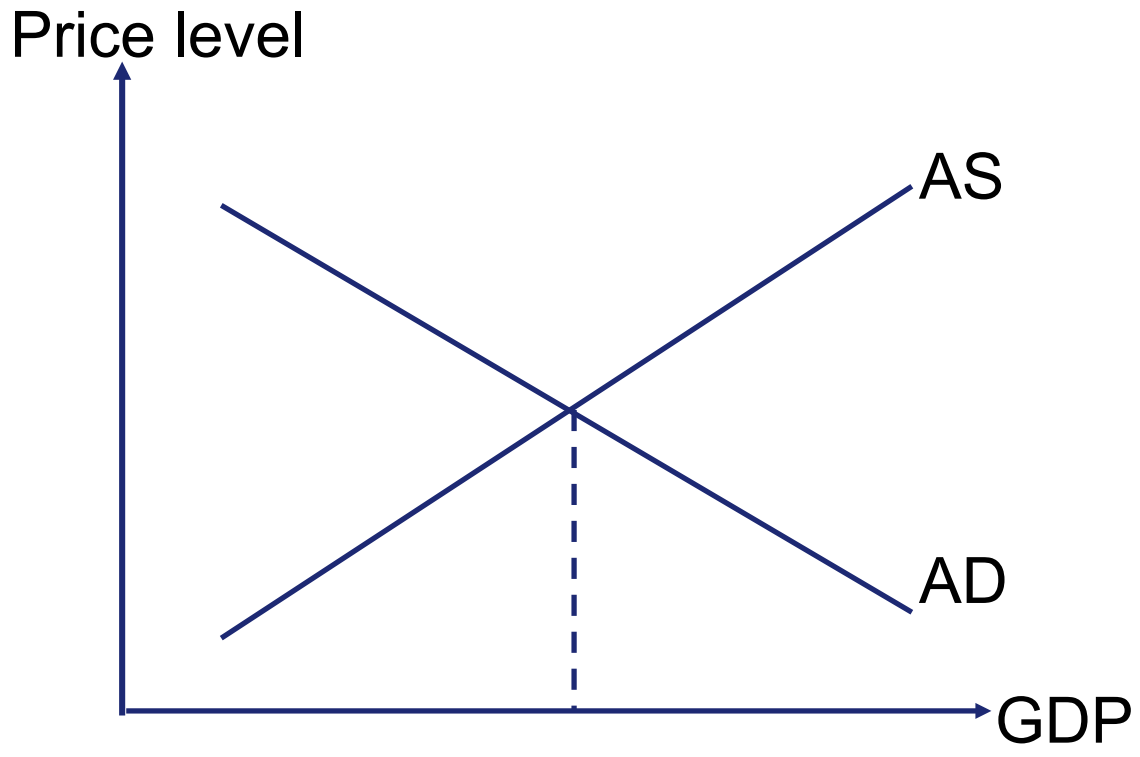

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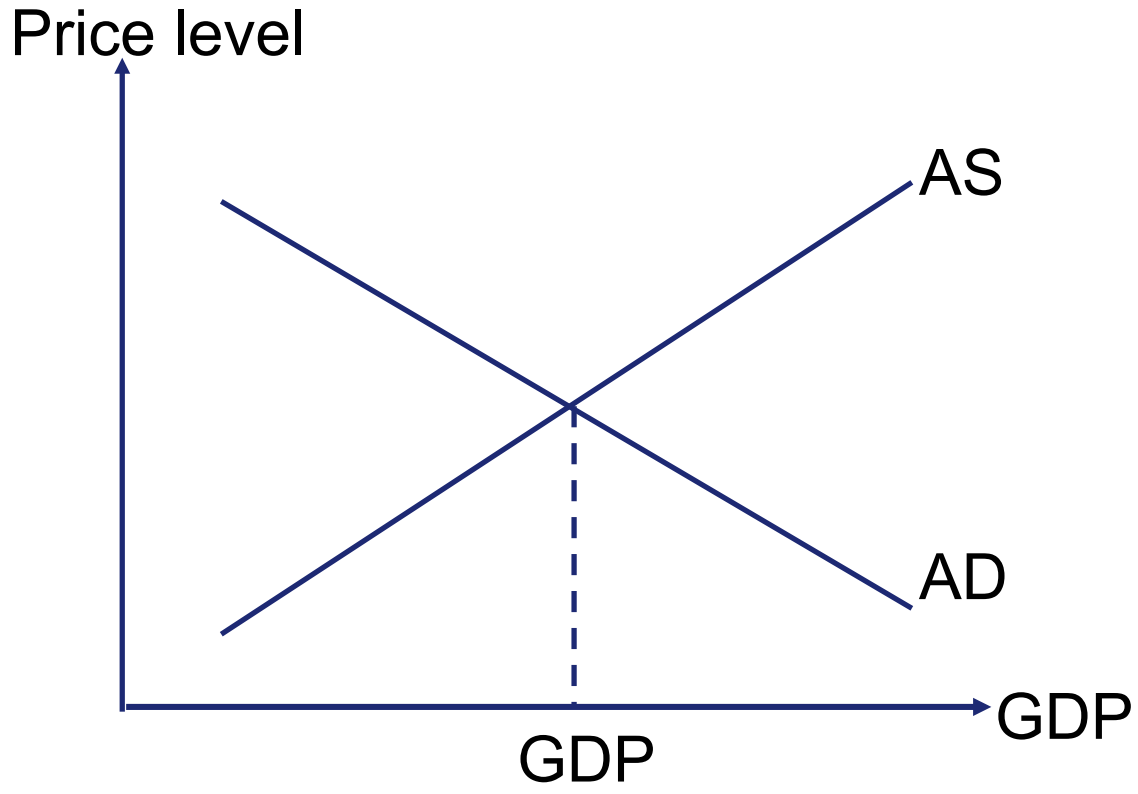
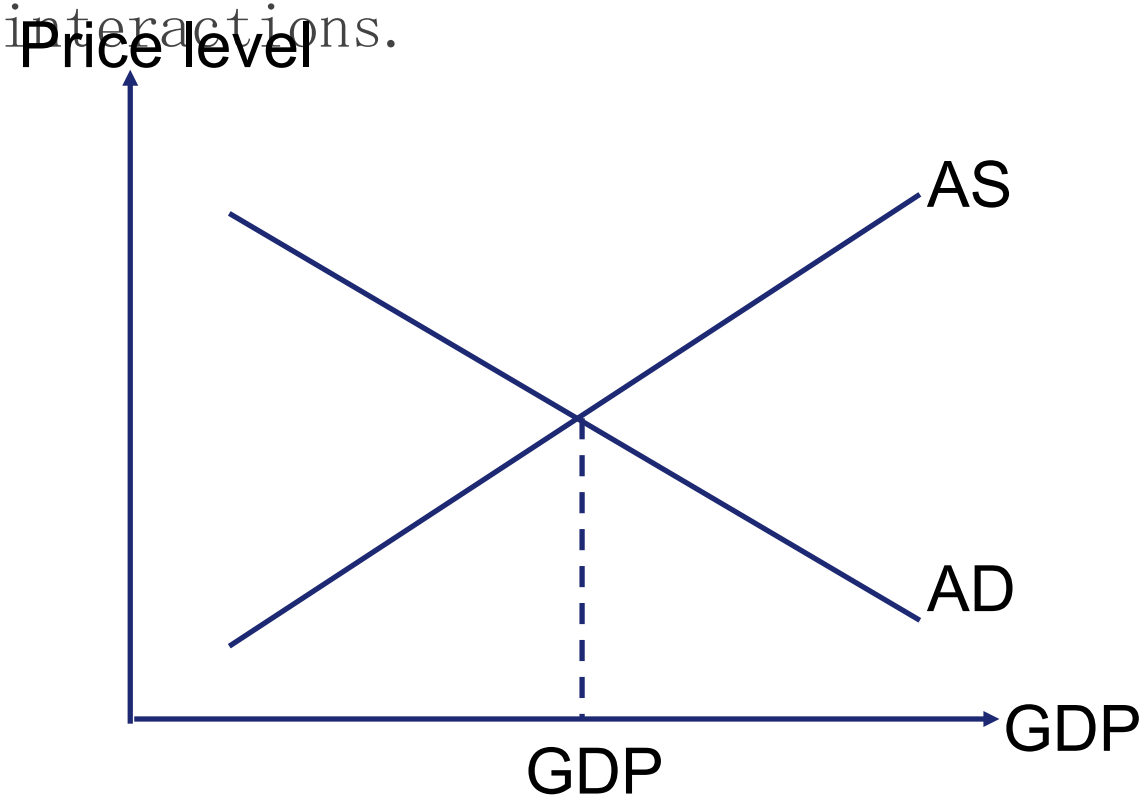


What is the market for Goods and Services?

- Inflation (changes in price level) also comes from AD and AS interactions.



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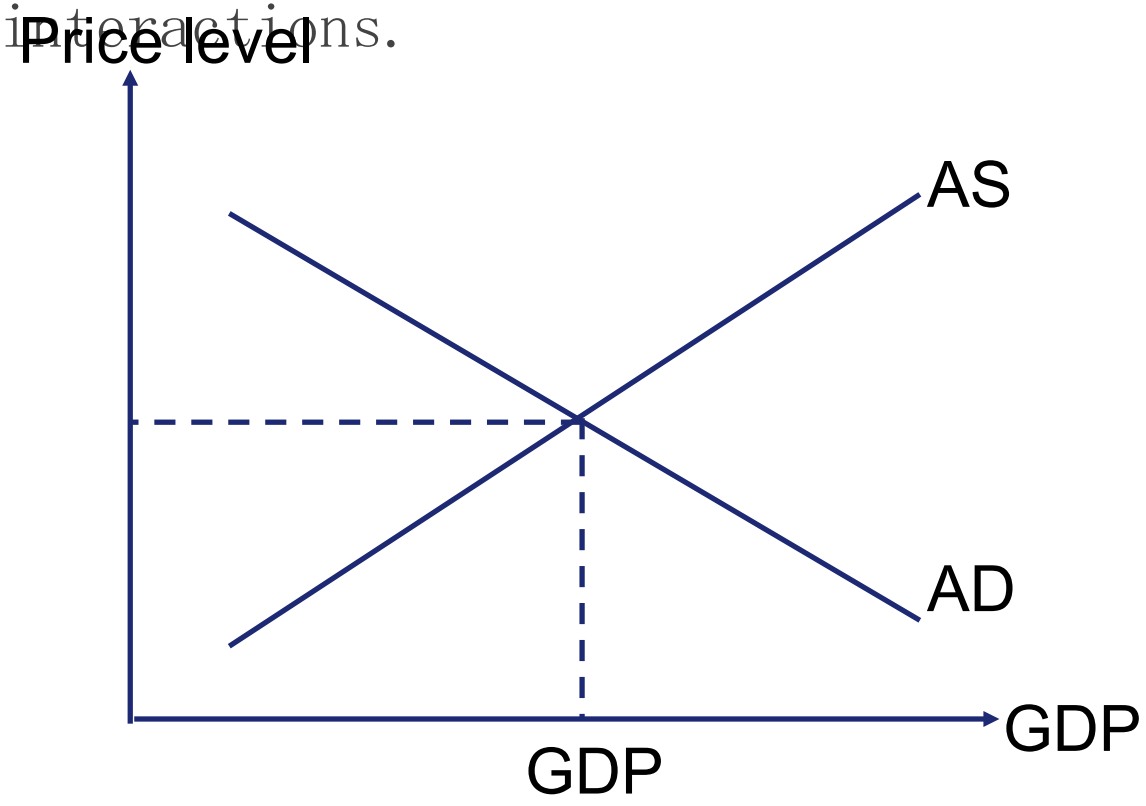

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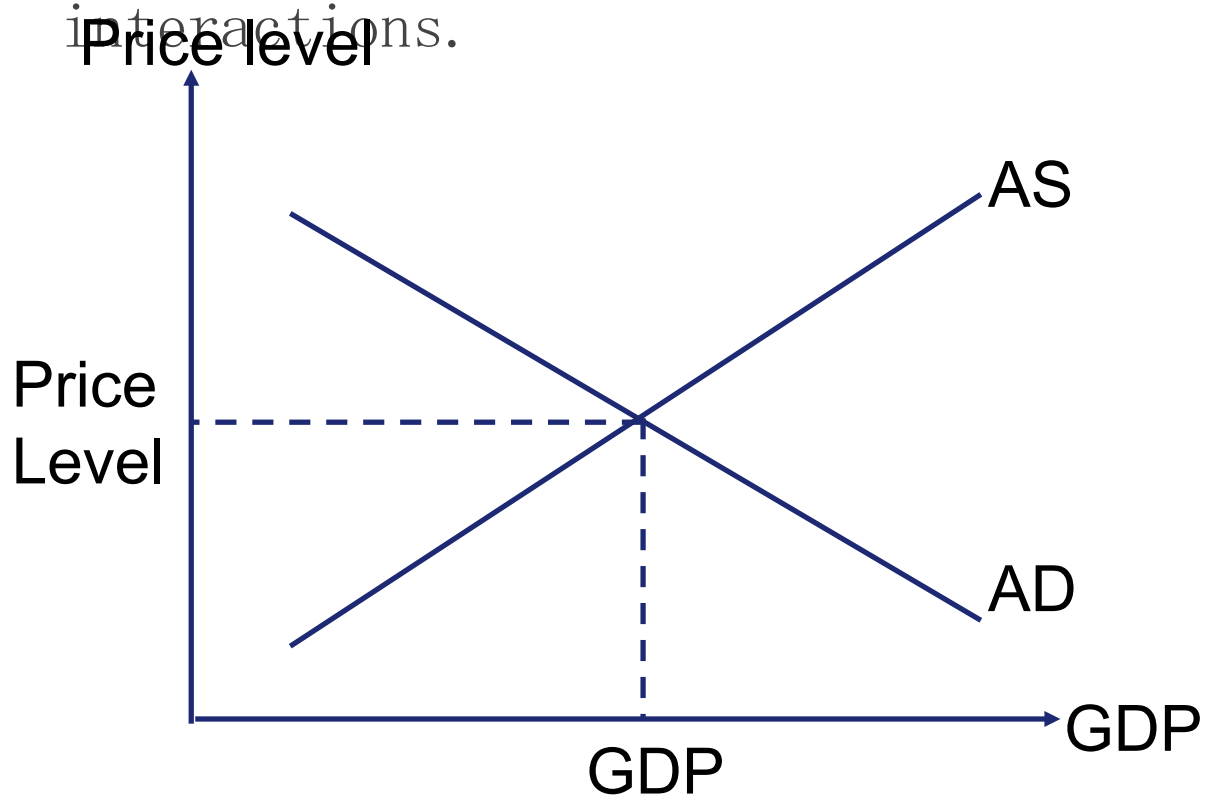
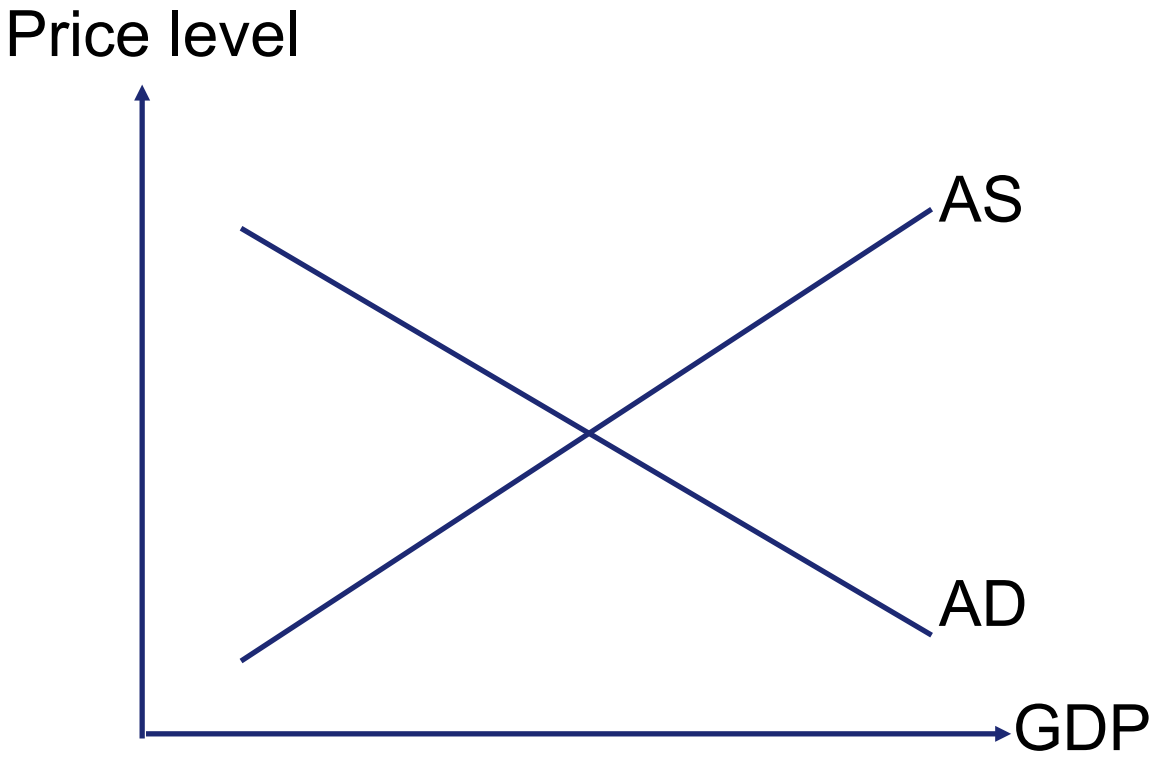


Chapter 2.2

Comparative Statics

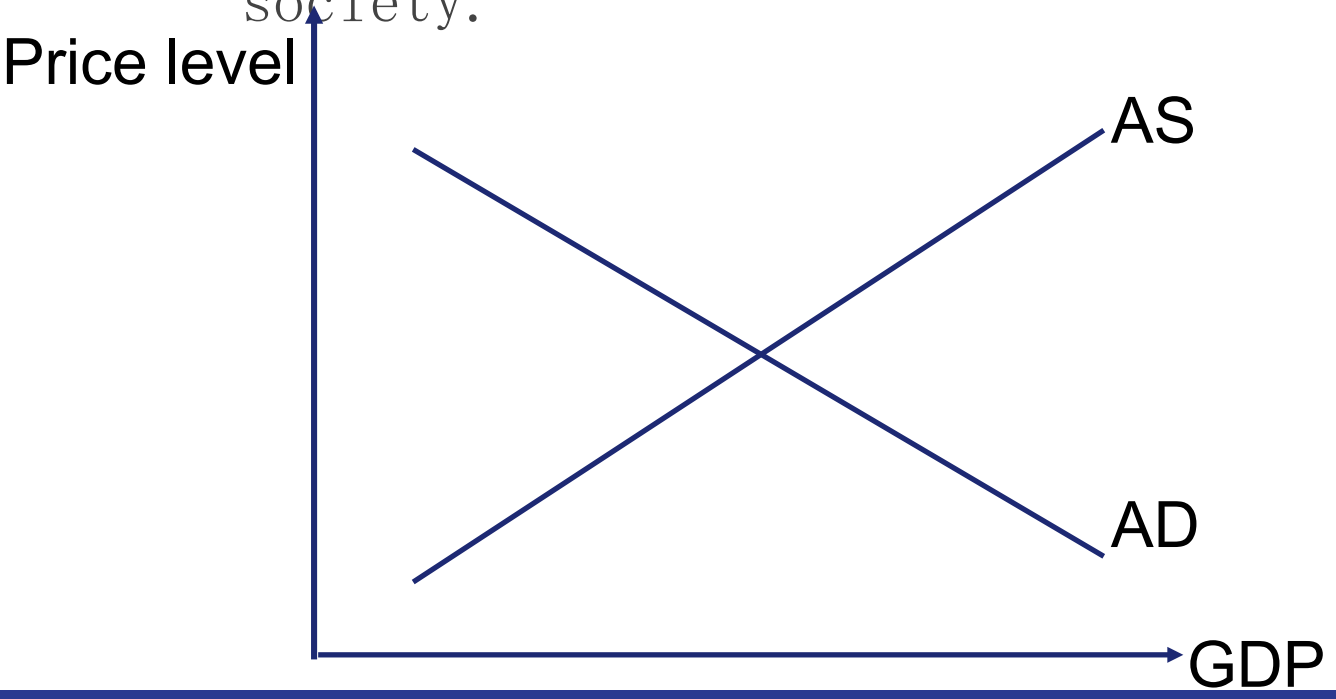
What is the market for Goods and Services?

- Representation of consumption and production of all goods and services in a country.



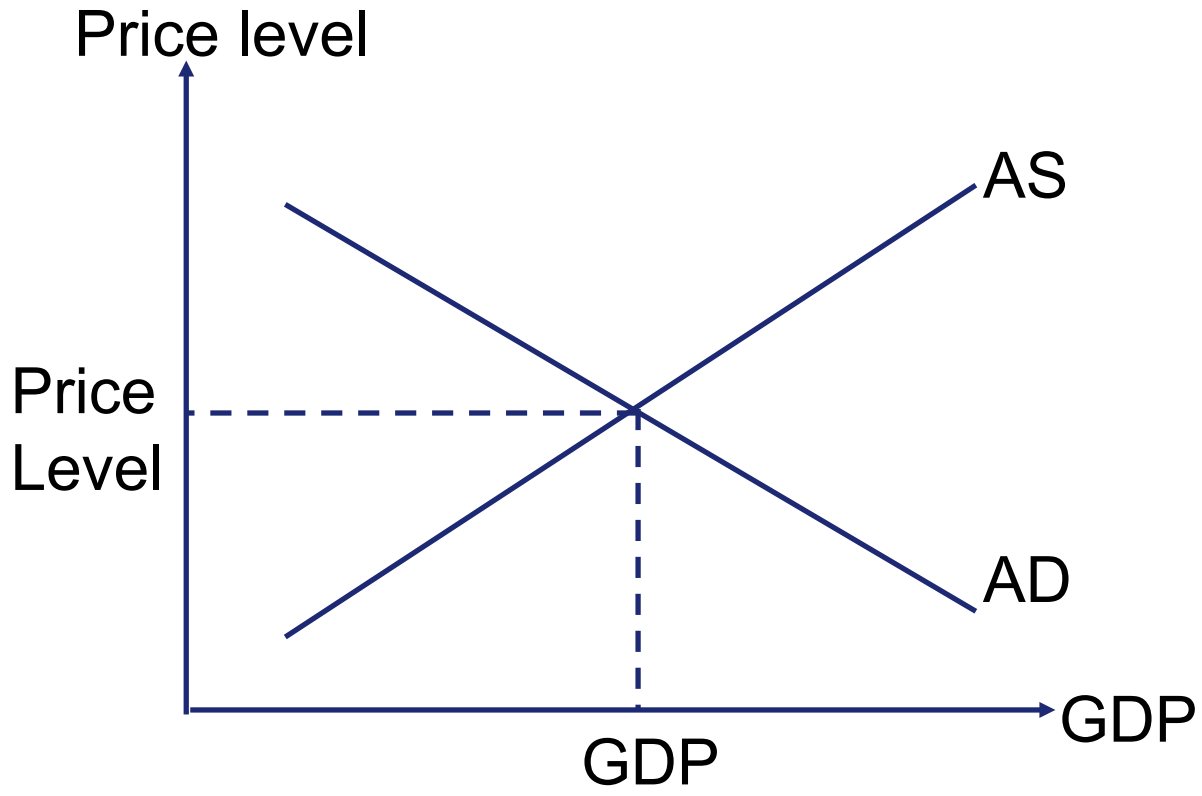
What is the market for Goods and Services?

- Aggregate demand represents all the goods and services consumed by society (government, companies and households).
- Aggregate supply is comprised of the whole production capacity of society.



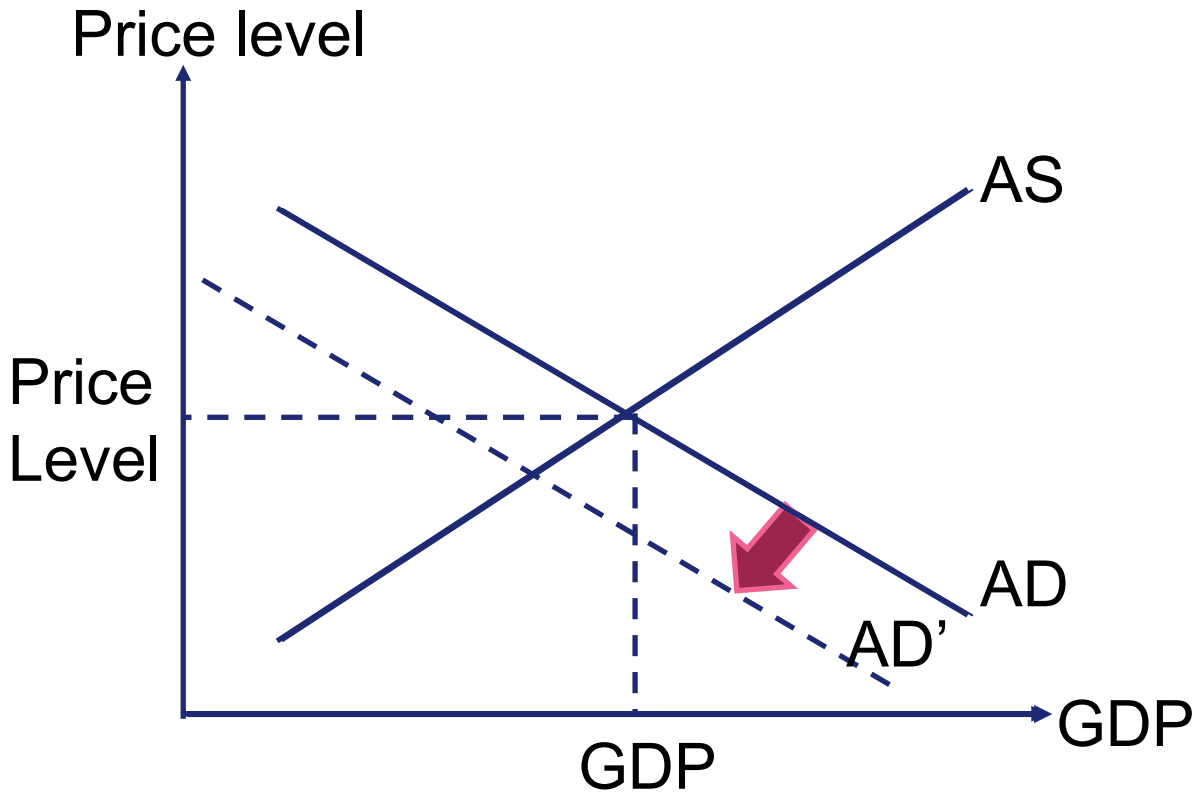
Comparative Statics: Overview

- Step 1: Describe the Initial Equilibrium.



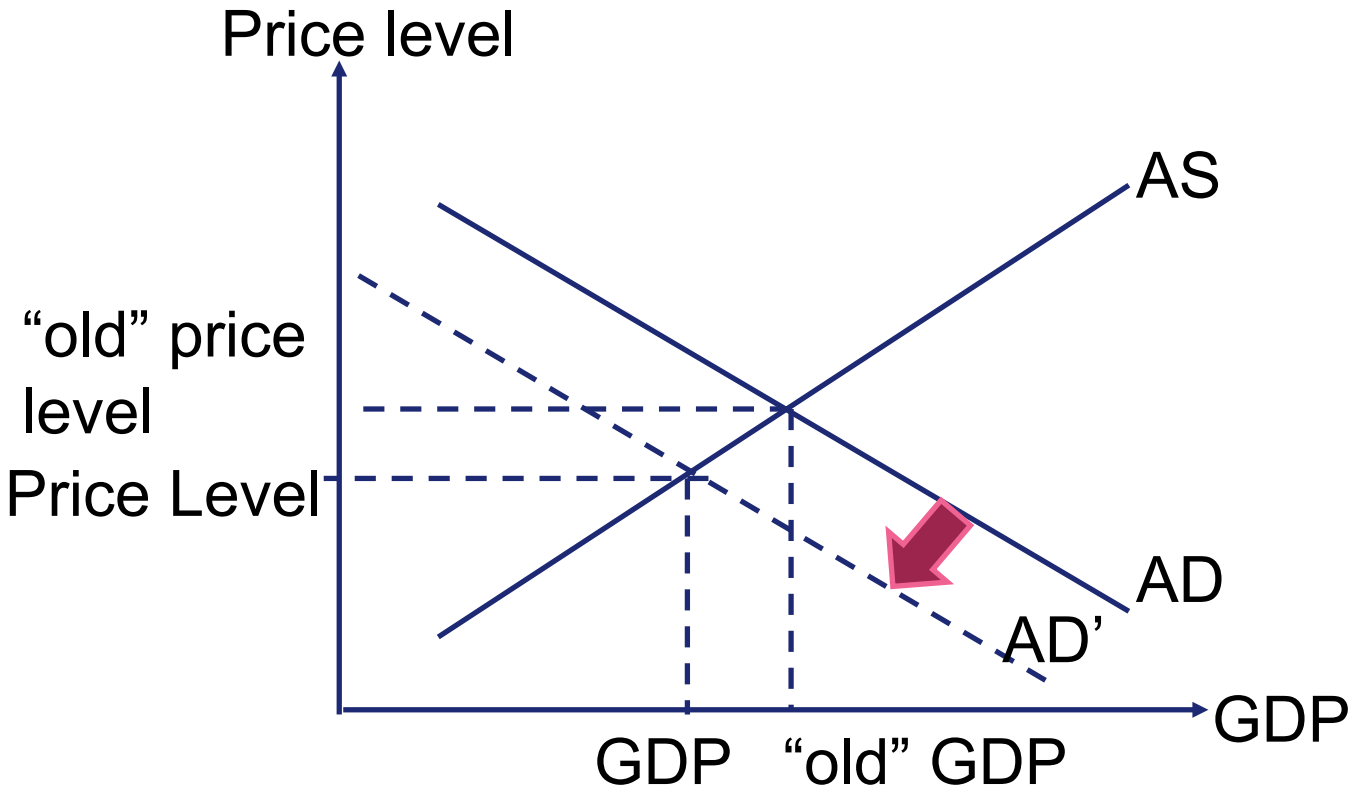
Comparative Statics: Overview

- Step 2: Apply economic shock (here, lower demand, AD to AD').



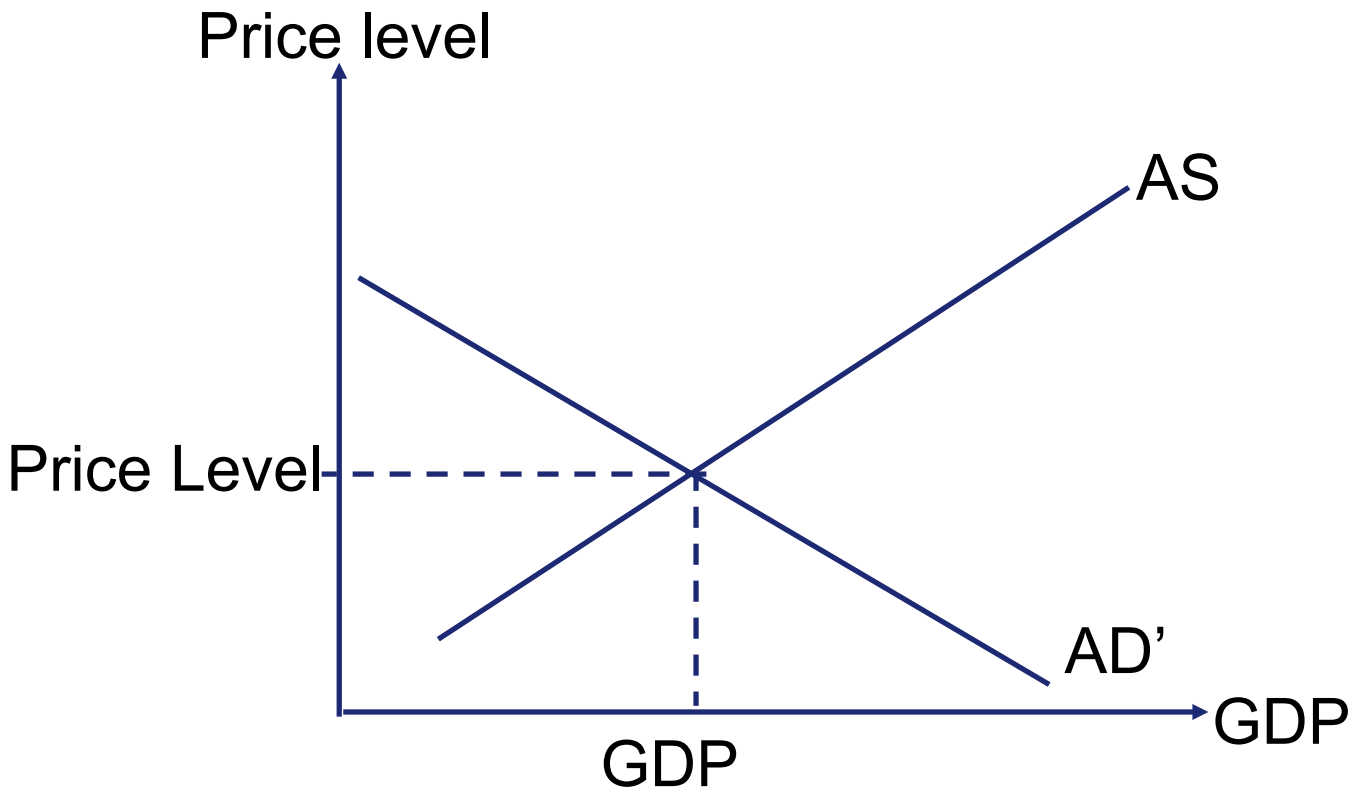
Comparative Statics: Overview

- Step 2: “old” equilibrium ceases to exist. “New” equilibrium with lower P and GDP.



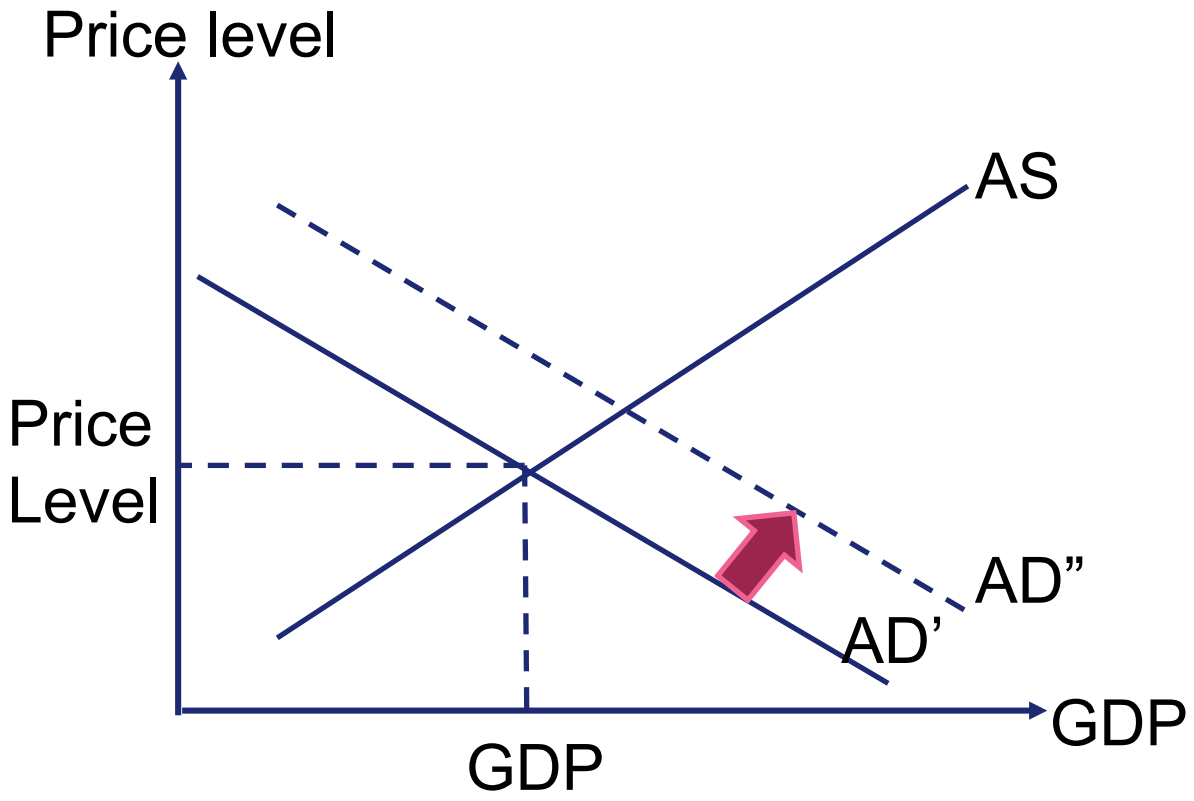
Comparative Statics: Overview

- Step 2: “New” equilibrium with lower P and GDP.



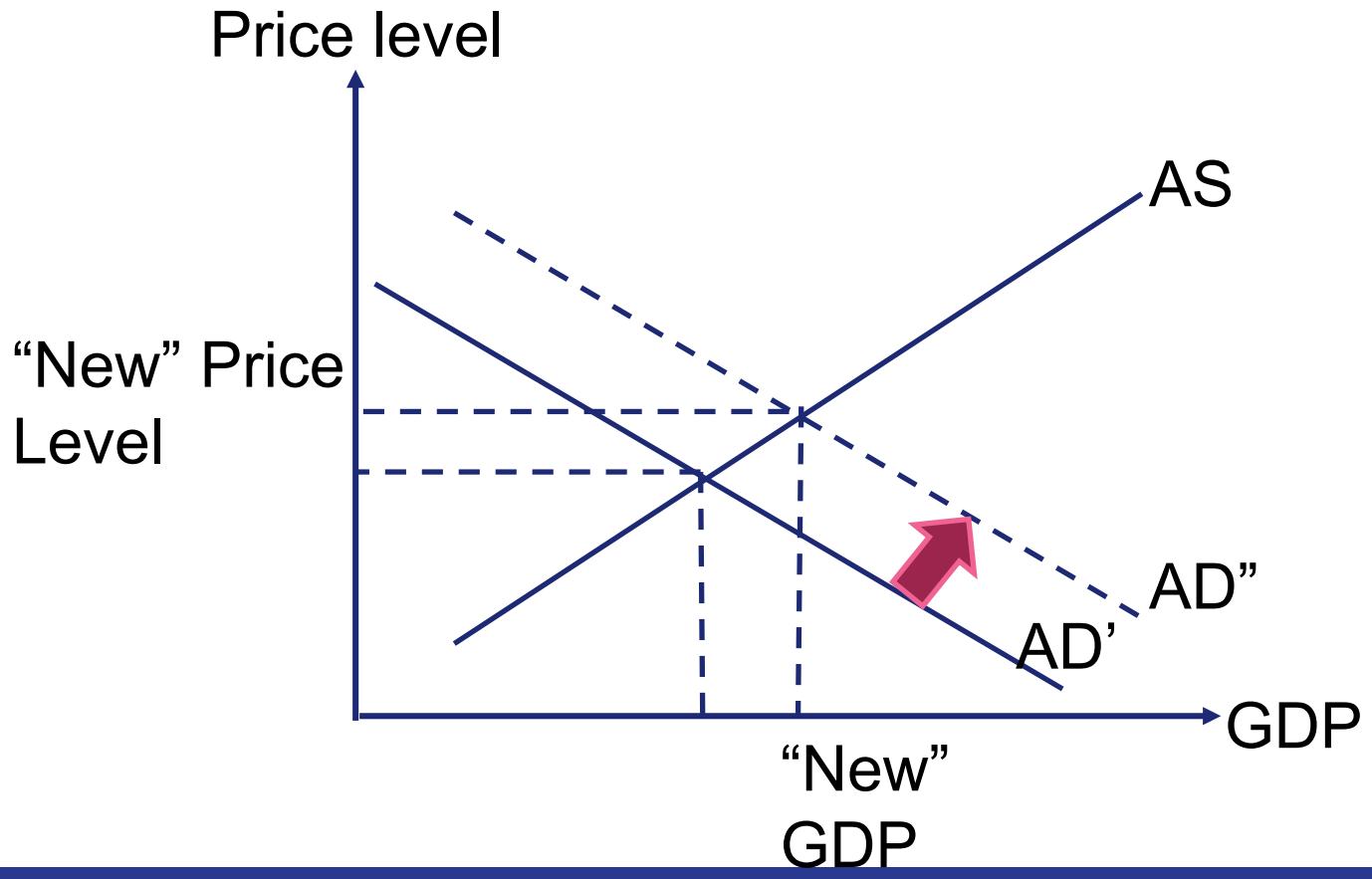
Comparative Statics: Overview

- Step 3: Government reaction, increasing AD (AD’ to AD”).



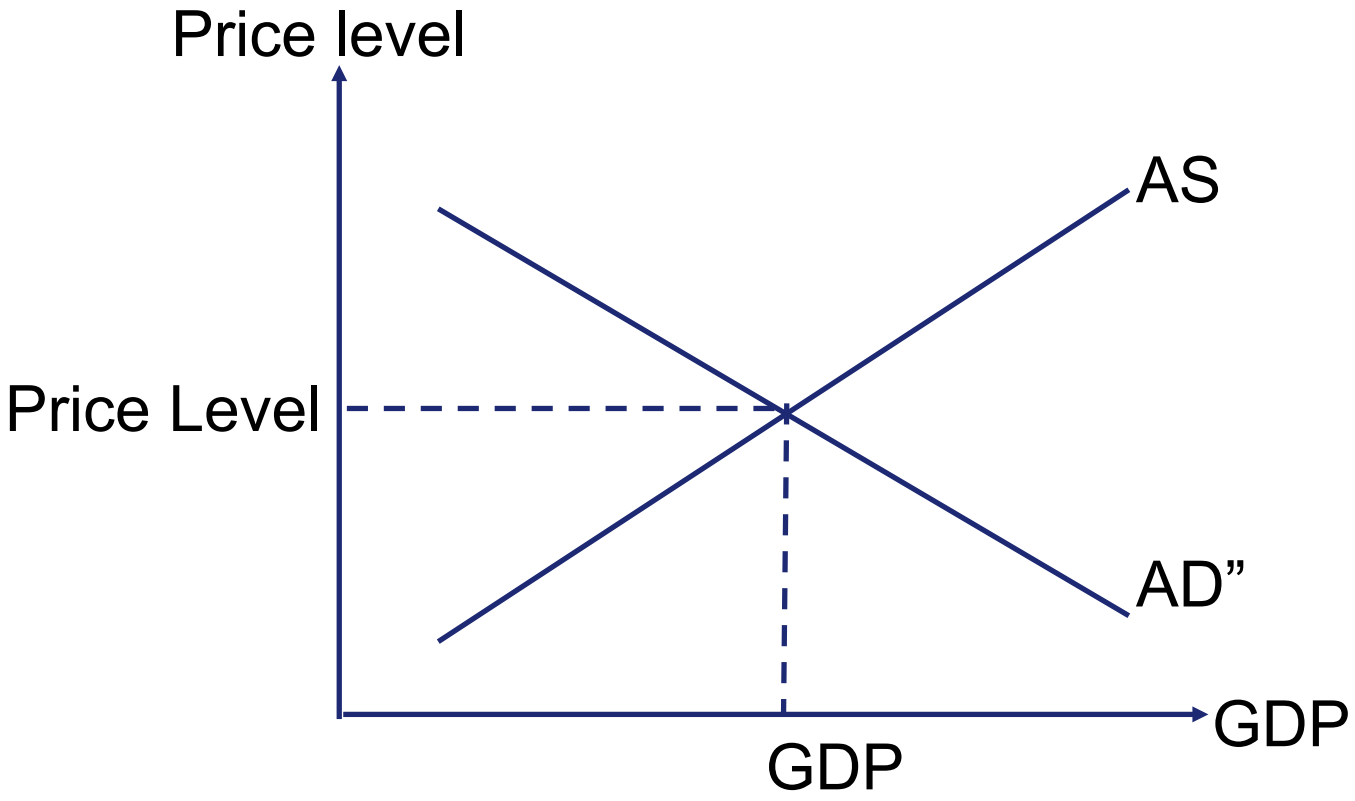
Comparative Statics: Overview

- Step 3: AD’ to AD” increases prices level and GDP.



Comparative Statics: Overview

- Step 3: AD” is the final result: prices and GDP reflect shock and reaction.

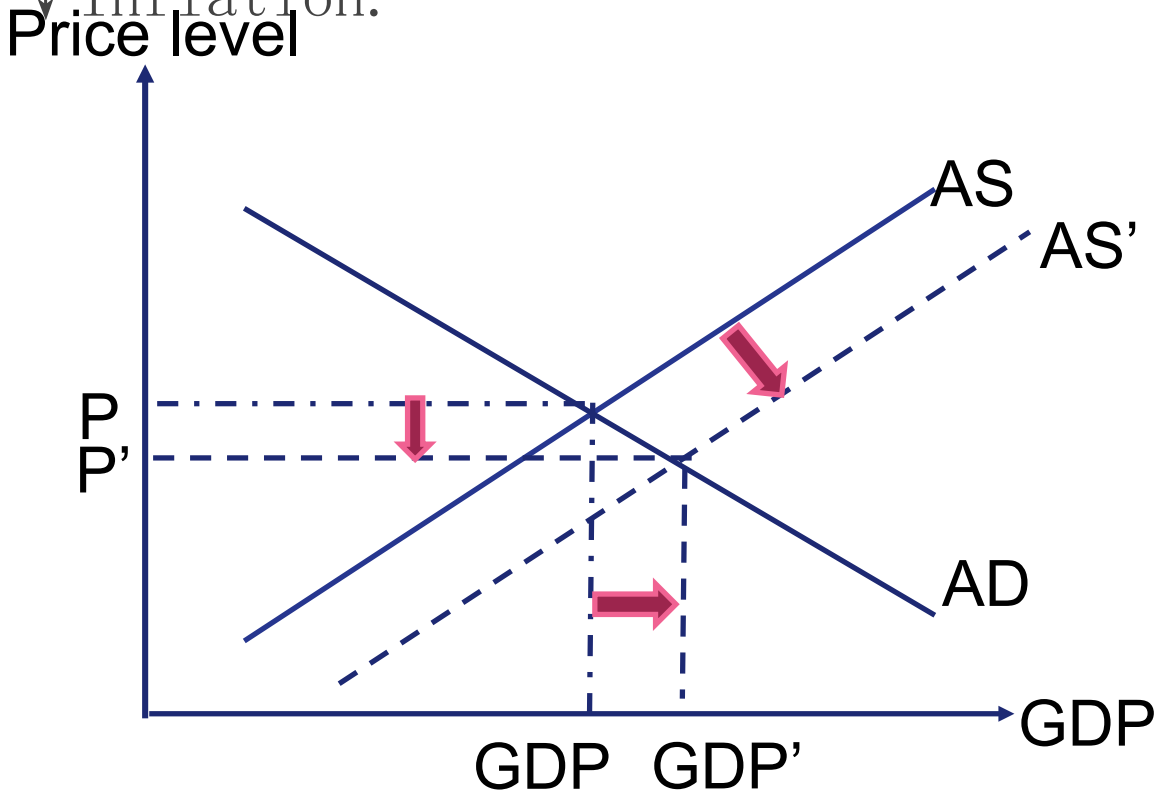


Comparative Statics: Things to remember

- Identifying an economic shock can be difficult.
- Policies ALWAYS come at some sort of cost.
- Shocks can be both internal and external.
- Easier to describe one shock at a time.
- Distinction between shocks affecting demand or supply not always clear.

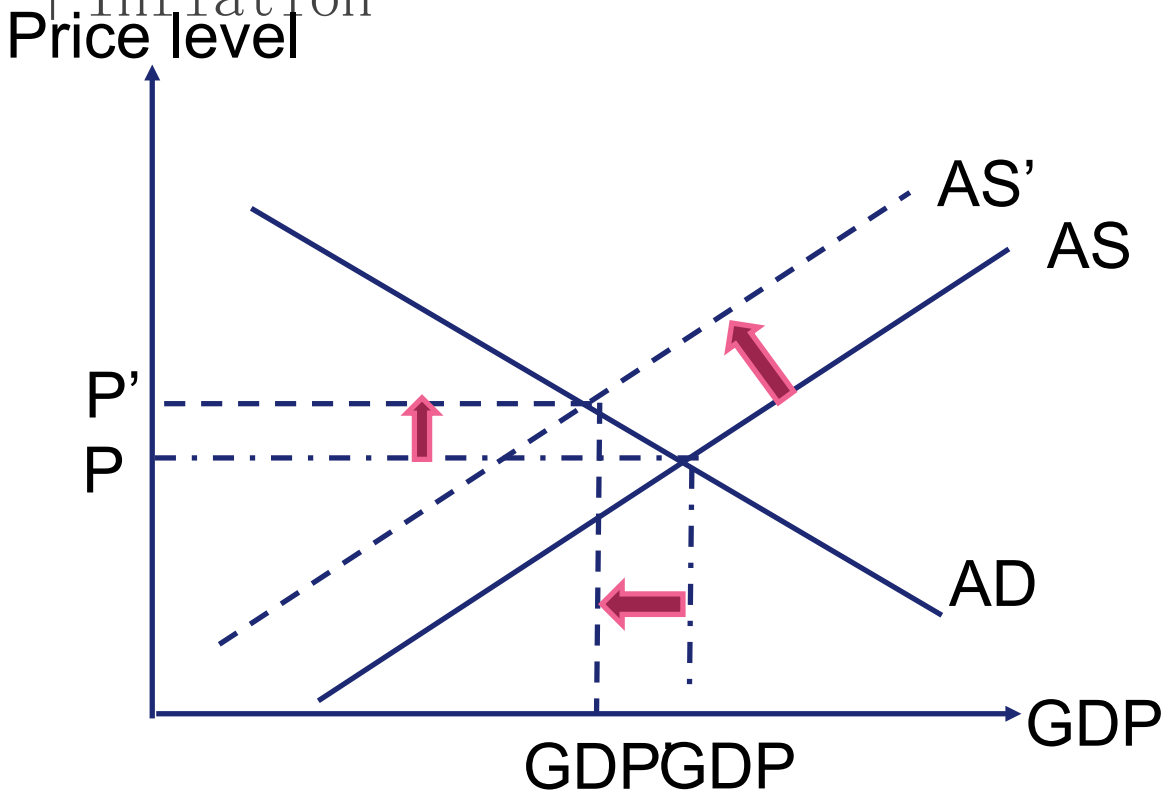
Four possible scenarios

- Scenario 1: positive supply shock (AS to AS’): ↑GDP with ↓Inflation.



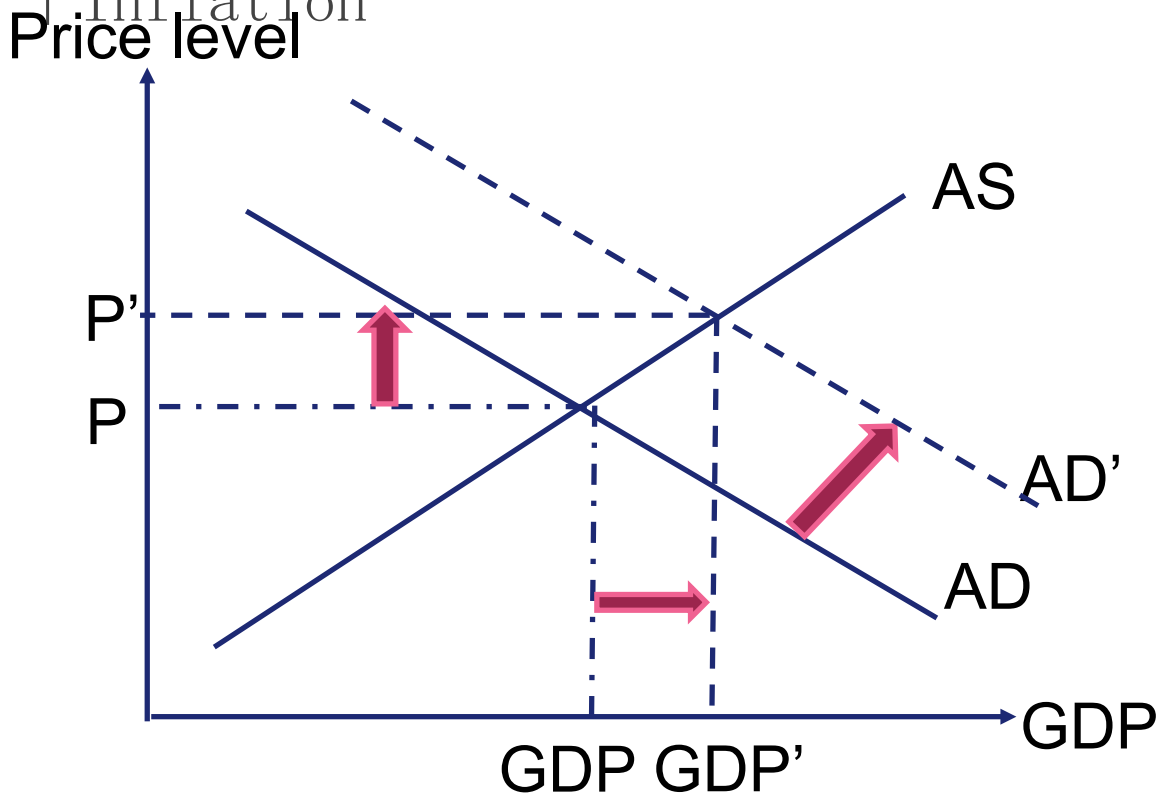
Four possible scenarios

- Scenario 2: negative supply shock (AS to AS'). ↓GDP with ↑Inflation



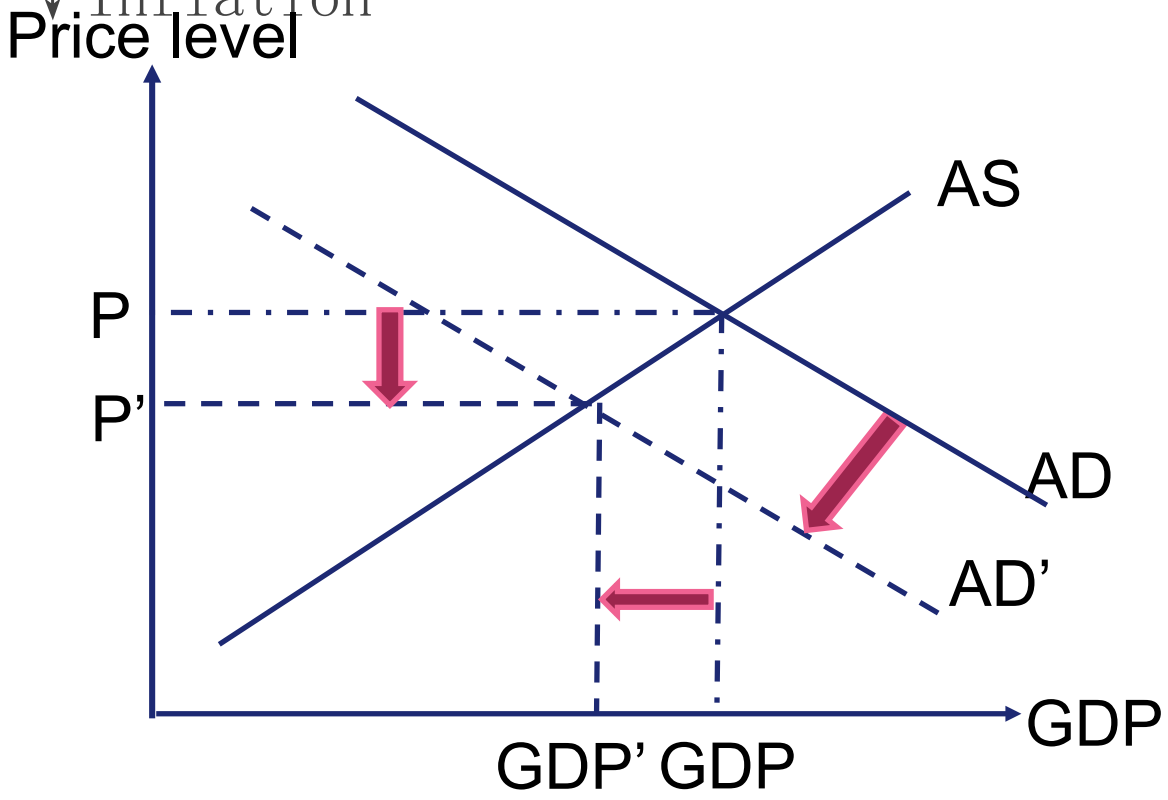
Four possible scenarios

- Scenario 3: positive demand shock (AD to AD'). ↑GDP with ↑Inflation



Four possible scenarios

- Scenario 4: negative demand shock (AD to AS’). ↓GDP with ↓Inflation



The Trade Off when only AD shifts.

- If governments choose to increase economic growth, they run the risk of inflation.
- If governments want to curb inflation, they will have to do so by reducing growth.

The Aggregate Demand

- In the closed economy model, aggregate demand is a function of the behavior of consumers, the government, and business: AD = C + I + G.
- C: consumption by households.
- I: Investment by companies in expanded capacity.
- G: Government expenditure.

The Aggregate Demand

- In an open economy model, aggregate demand also introduces the balance of trade: AD = C + I + G + X − IM.
- C: consumption by households.
- I: Investment by companies in expanded capacity.
- G: Government expenditure.
- X: Exports.
- IM: Imports.

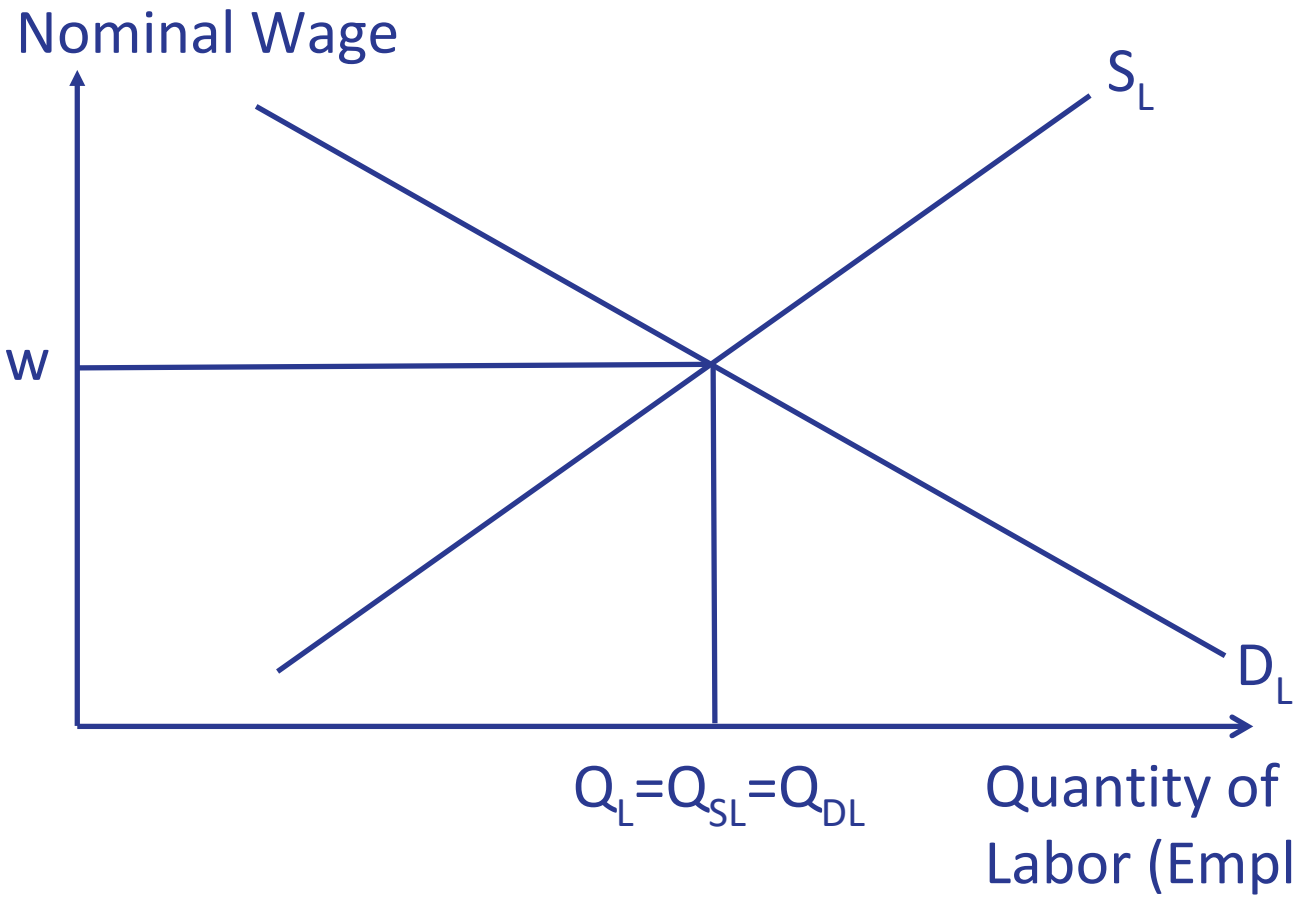
Chapter 2.3

Labor Market

Labor Market

- Another important macroeconomic model; represents the negotiation between individuals and companies regarding employment and wages.
- In a perfectly competitive model, **INVOLUNTARY** employment should not exist.
- We care only about involuntary employment i.e. people who are willing to work cannot find a job at the market wage.

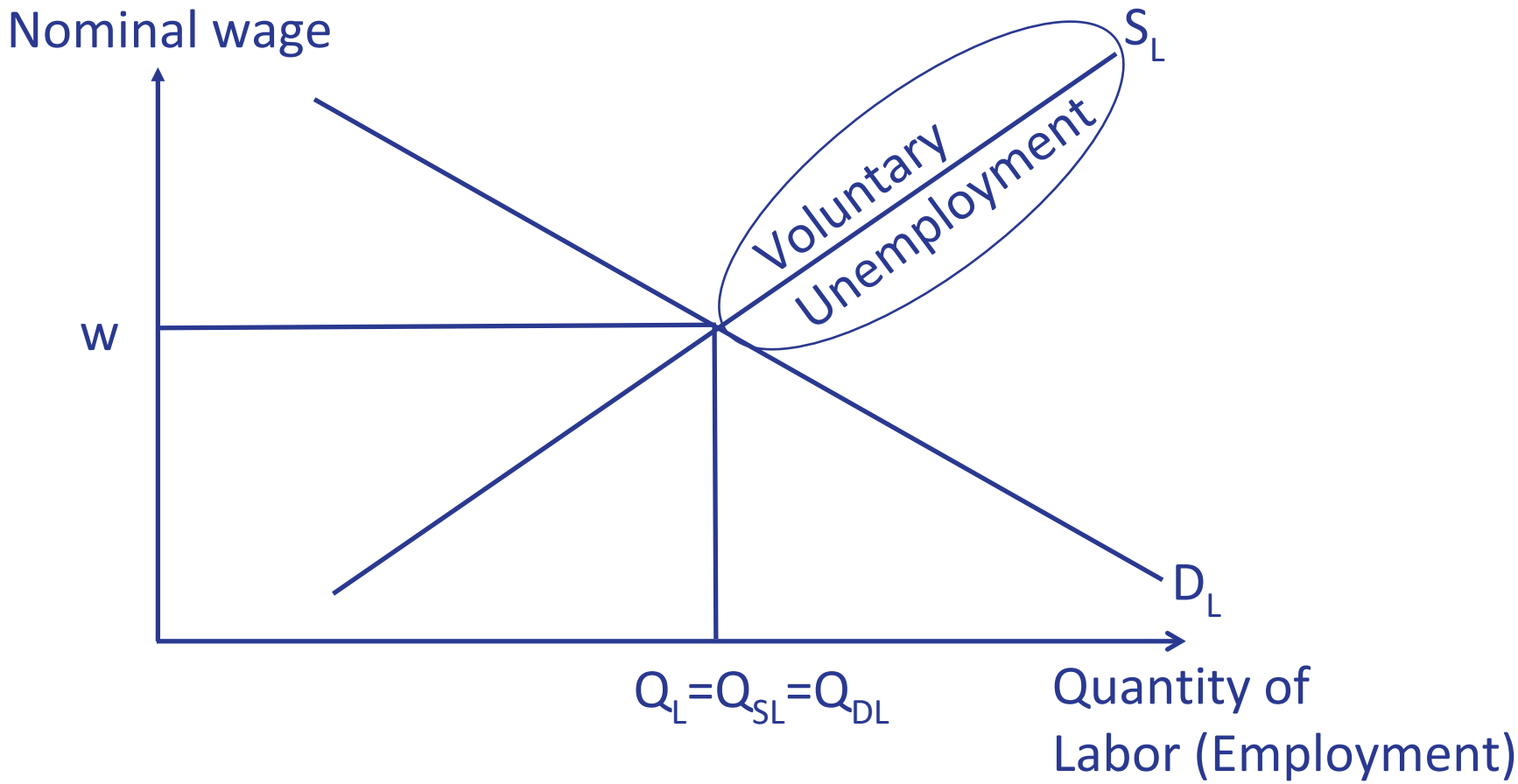
Perfectly Competitive Labor Market



Notation:

- Nominal wage = w
- Quantity of Labor = Q_L
- Labor supply = people willing to work = S_L
- Labor demand = how many people companies are willing to hire = D_L
- Involuntary Unemployment = Q_{SL} - Q_{DL}

Voluntary Unemployment



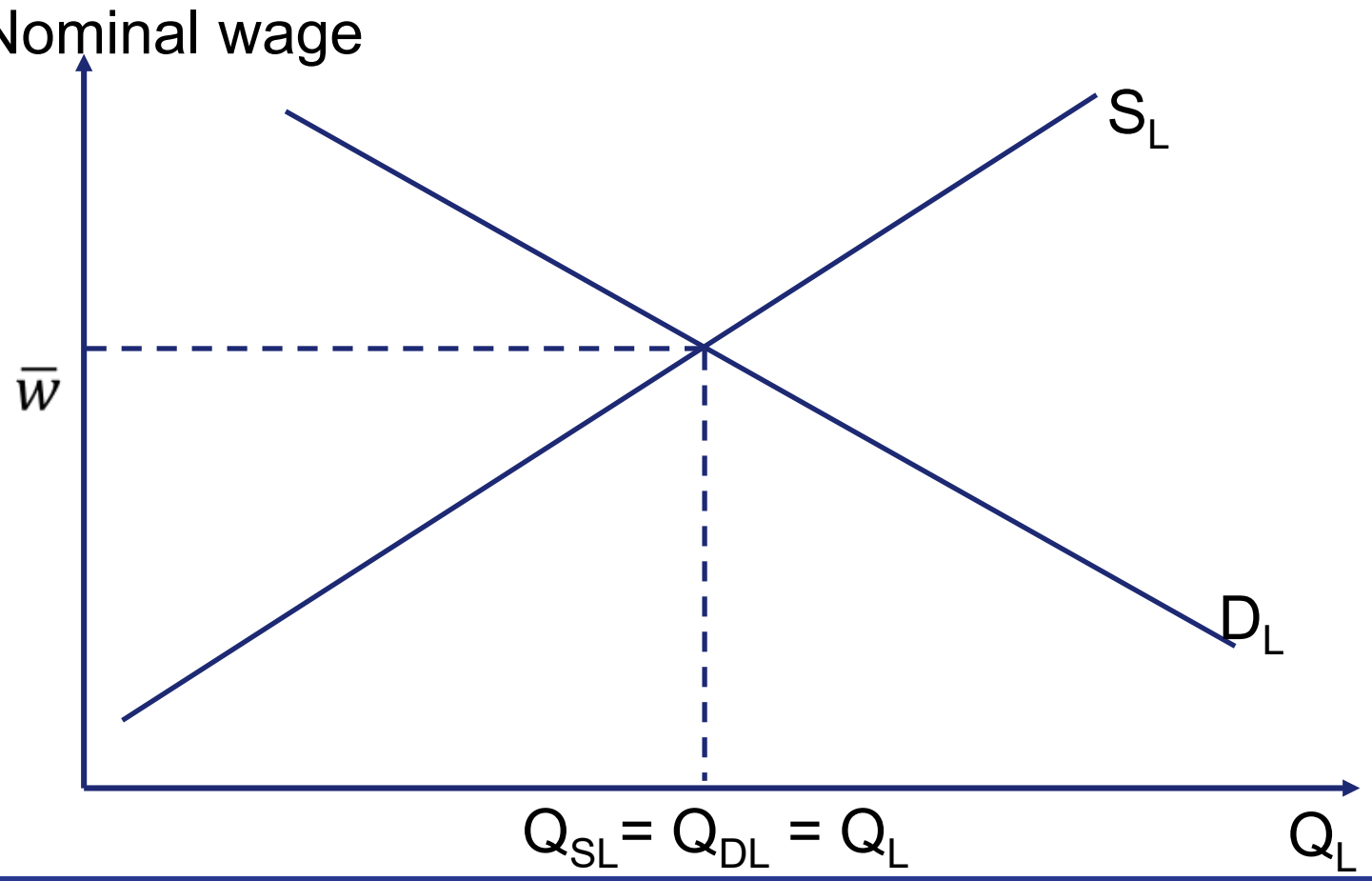
Why does involuntary unemployment exist?

We start with:

- Nominal wages are not fully flexible (as is the case in the perfectly competitive labor market) due to labor laws, trade unions, and the minimum wage.
- With wages rigid in real life, a decrease in the demand for labor would result in an increase of involuntary unemployment.

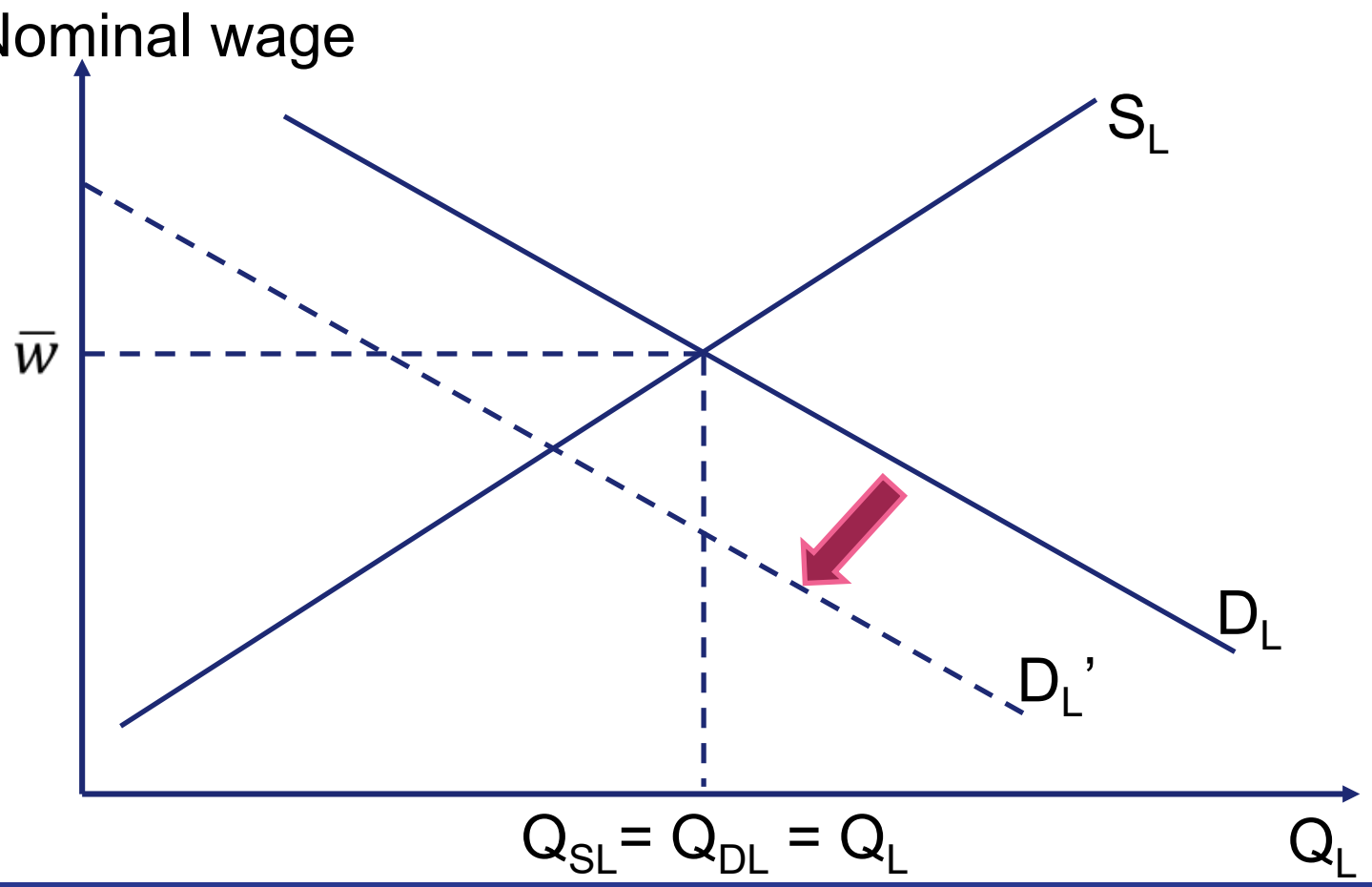
How does involuntary unemployment emerge?

- Step 1: Let’s assume that we start with zero unemployment.



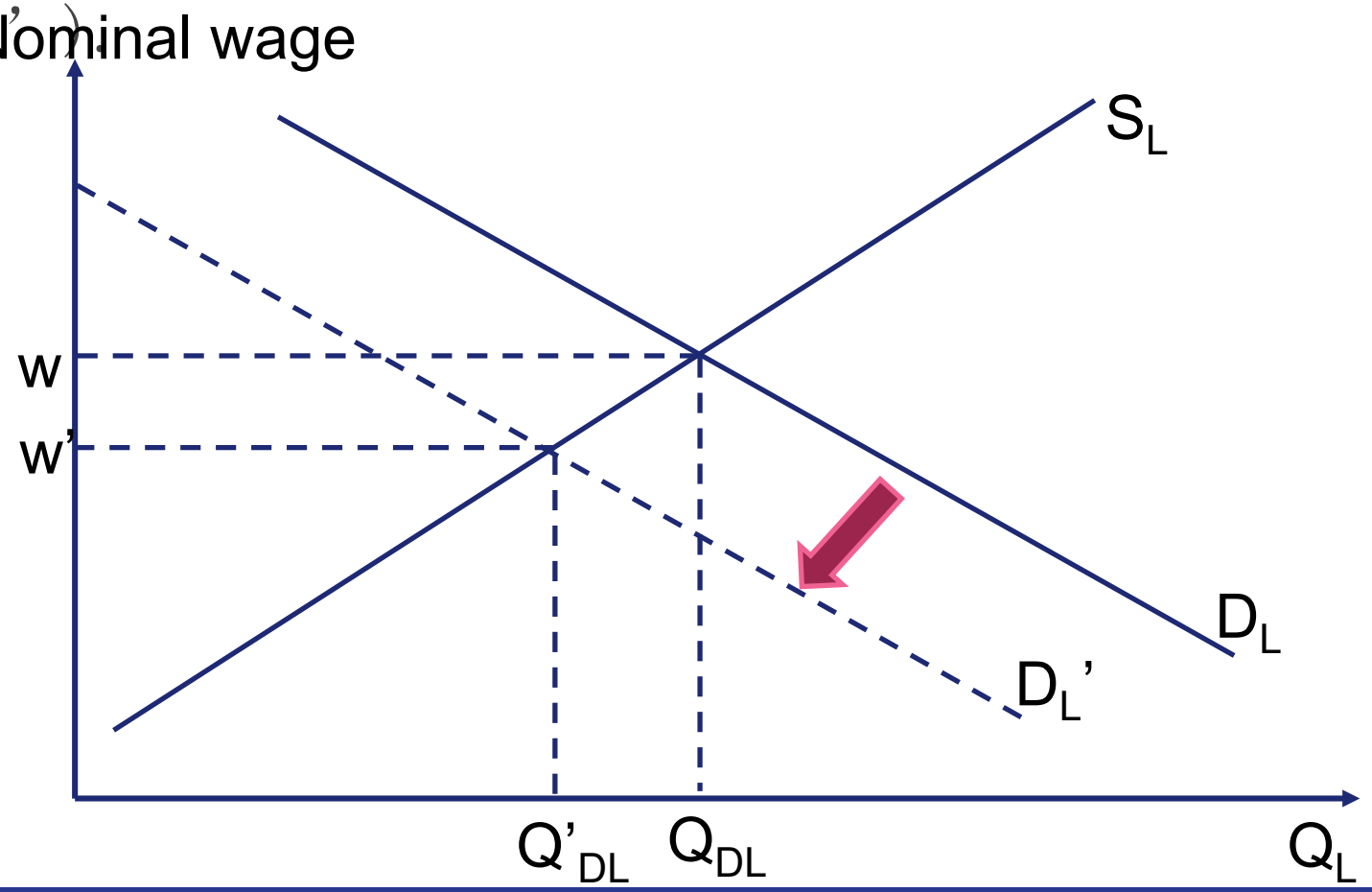
How does involuntary unemployment emerge?

- Step 2: Now, there is a negative shock in Labor Demand (D_L to D_L').



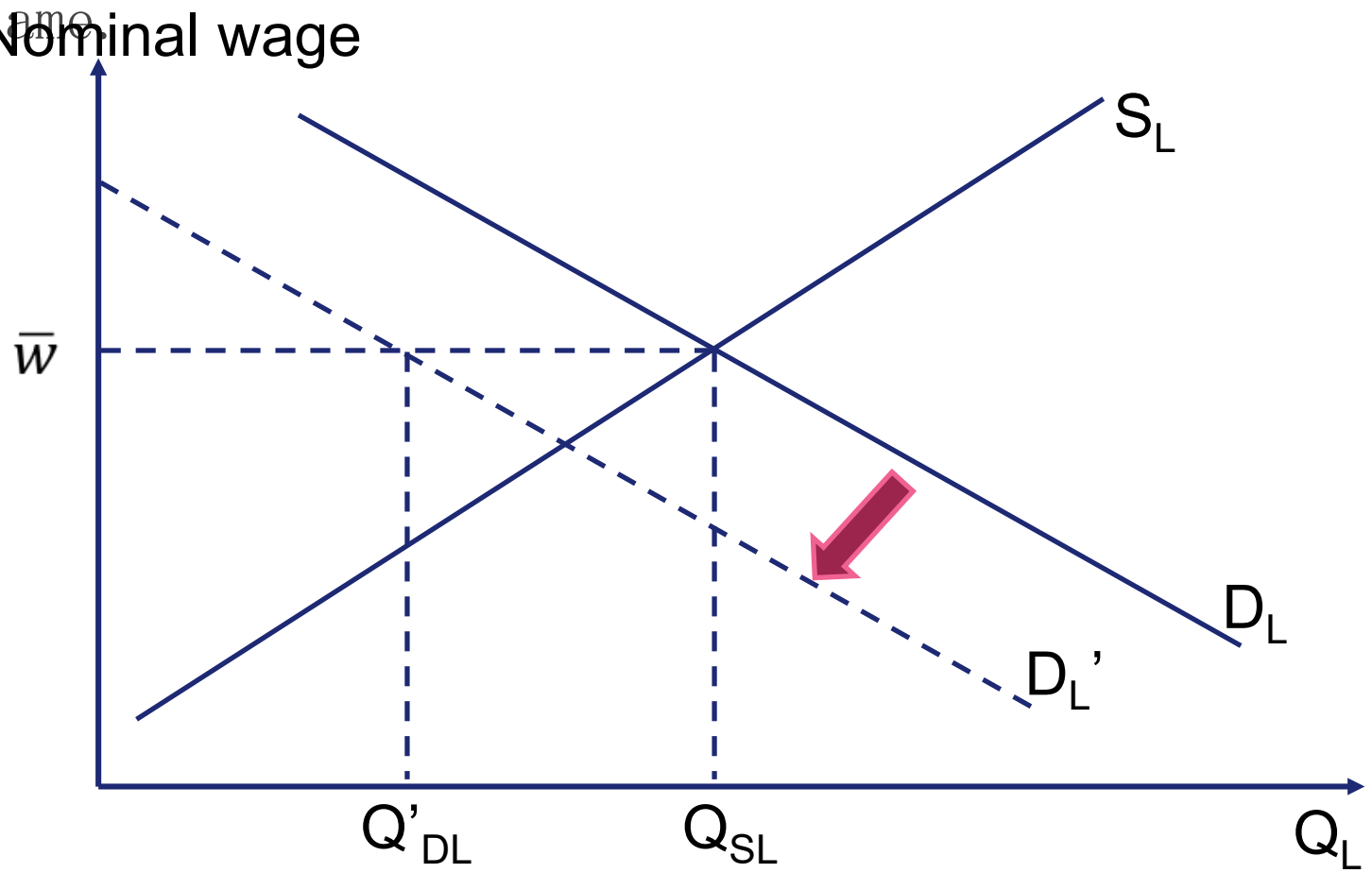
How does involuntary unemployment emerge?

- Step 2a: If wages were flexible, then ↓w (w to w') and ↓Q_L (Q_L to Q_L').



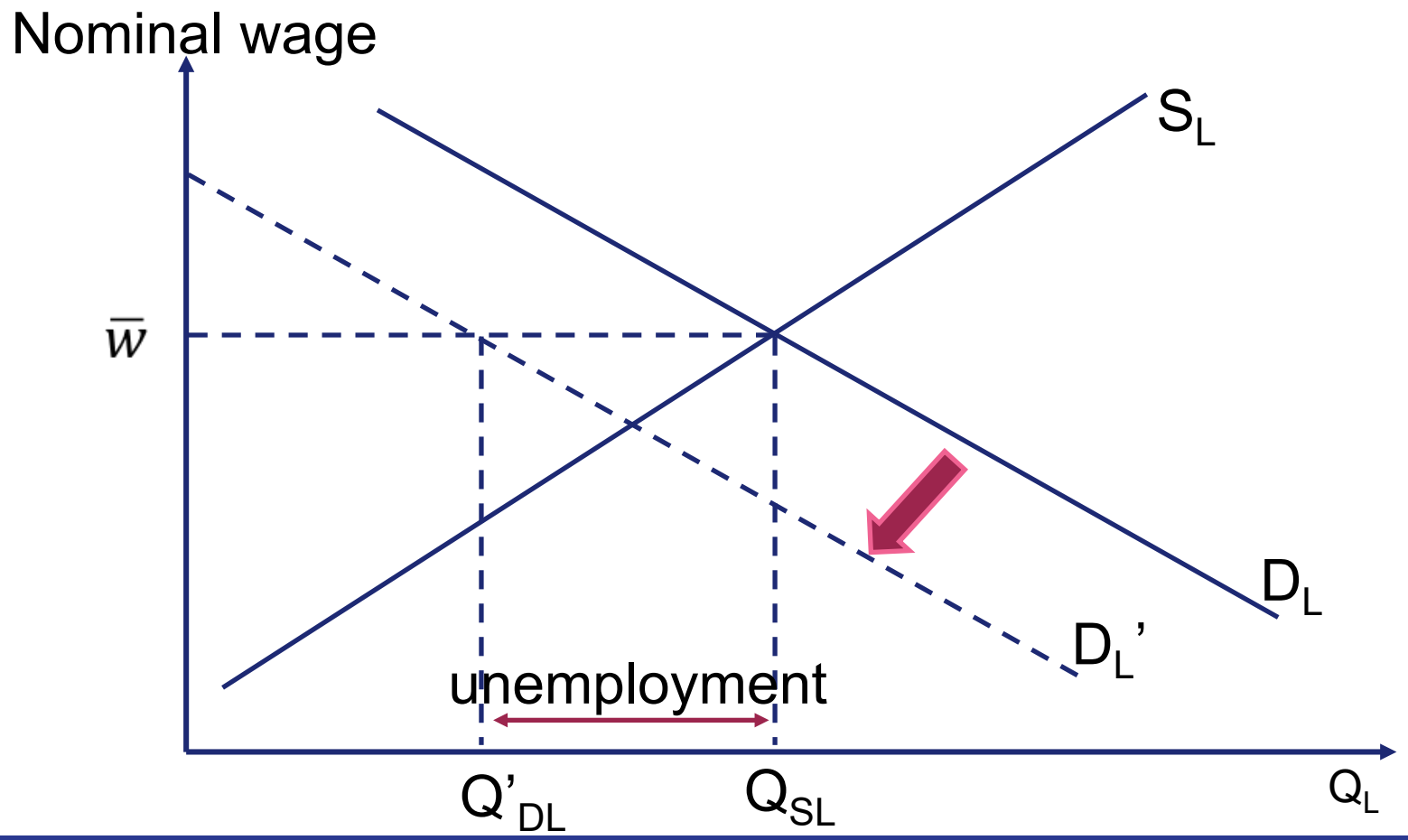
How does involuntary unemployment emerge?

- Step 2a: But when wages are rigid ($\bar{w}$), then $\downarrow Q_{DL}$ but Q_{SL} stays the same



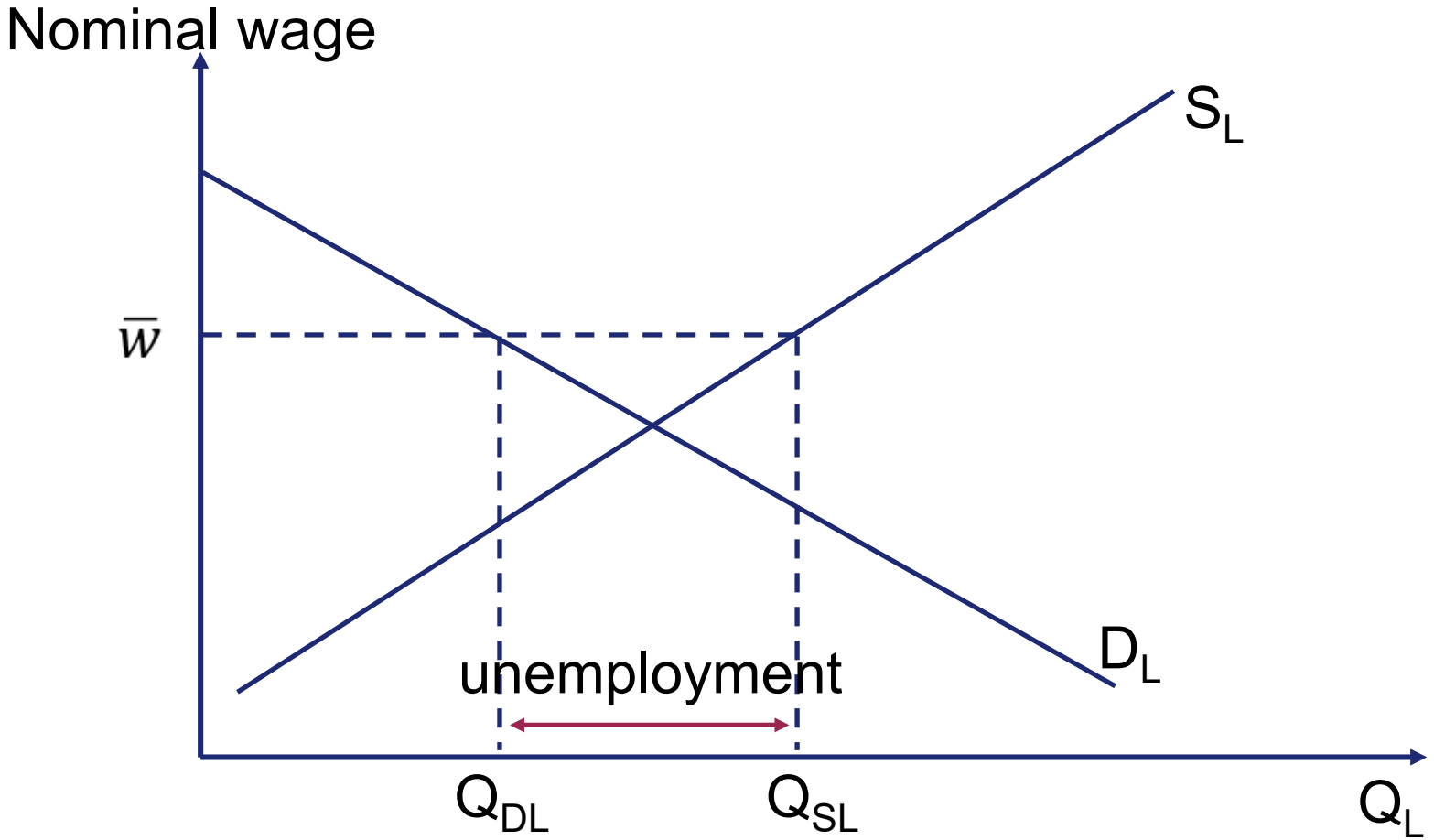
How does involuntary unemployment emerge?

- Step 2a: And unemployment emerges (Q_{SL} – Q_{DL}).



How does involuntary unemployment emerge?

- In this framework, unemployment decreases if $\uparrow D_L$.



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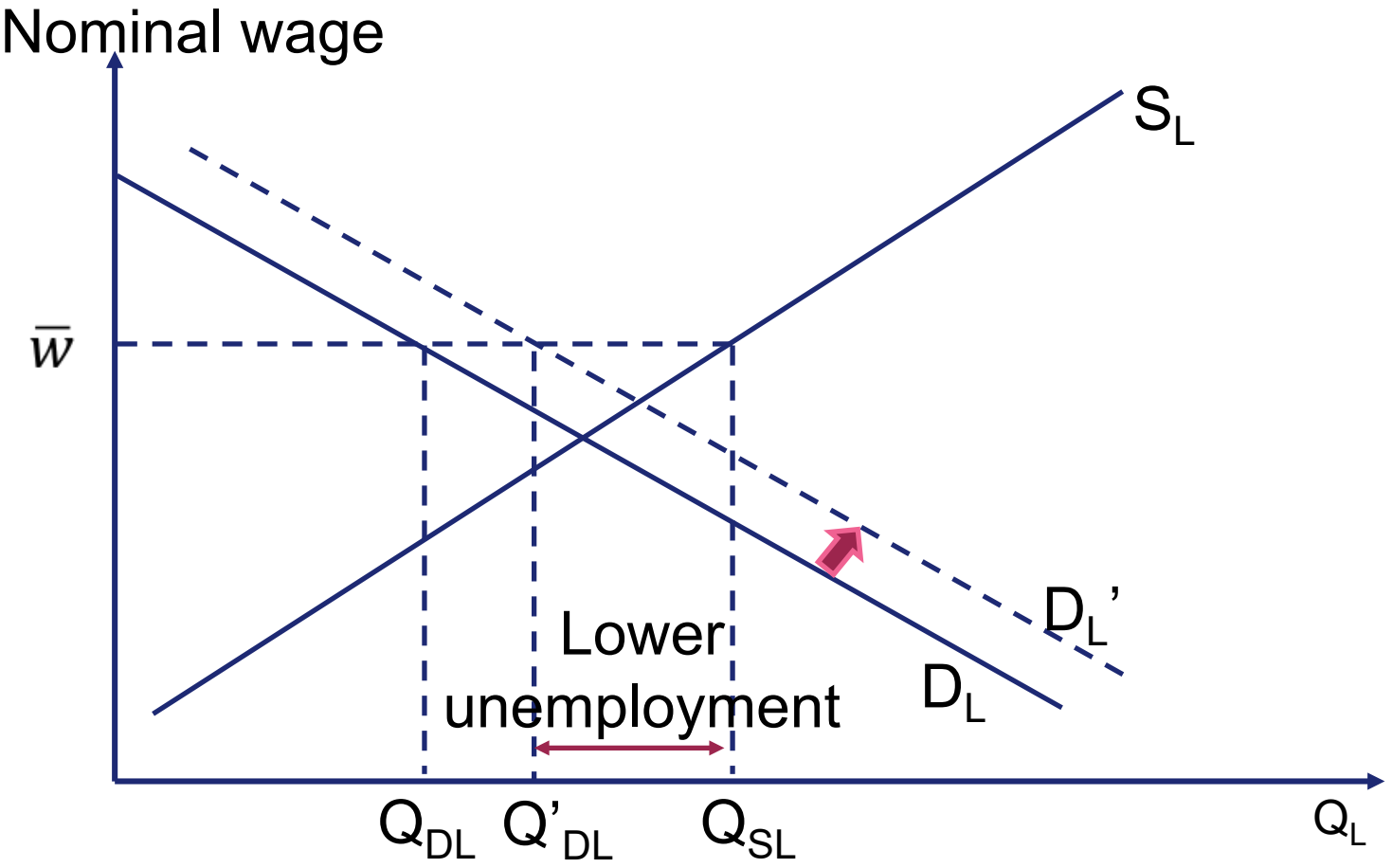
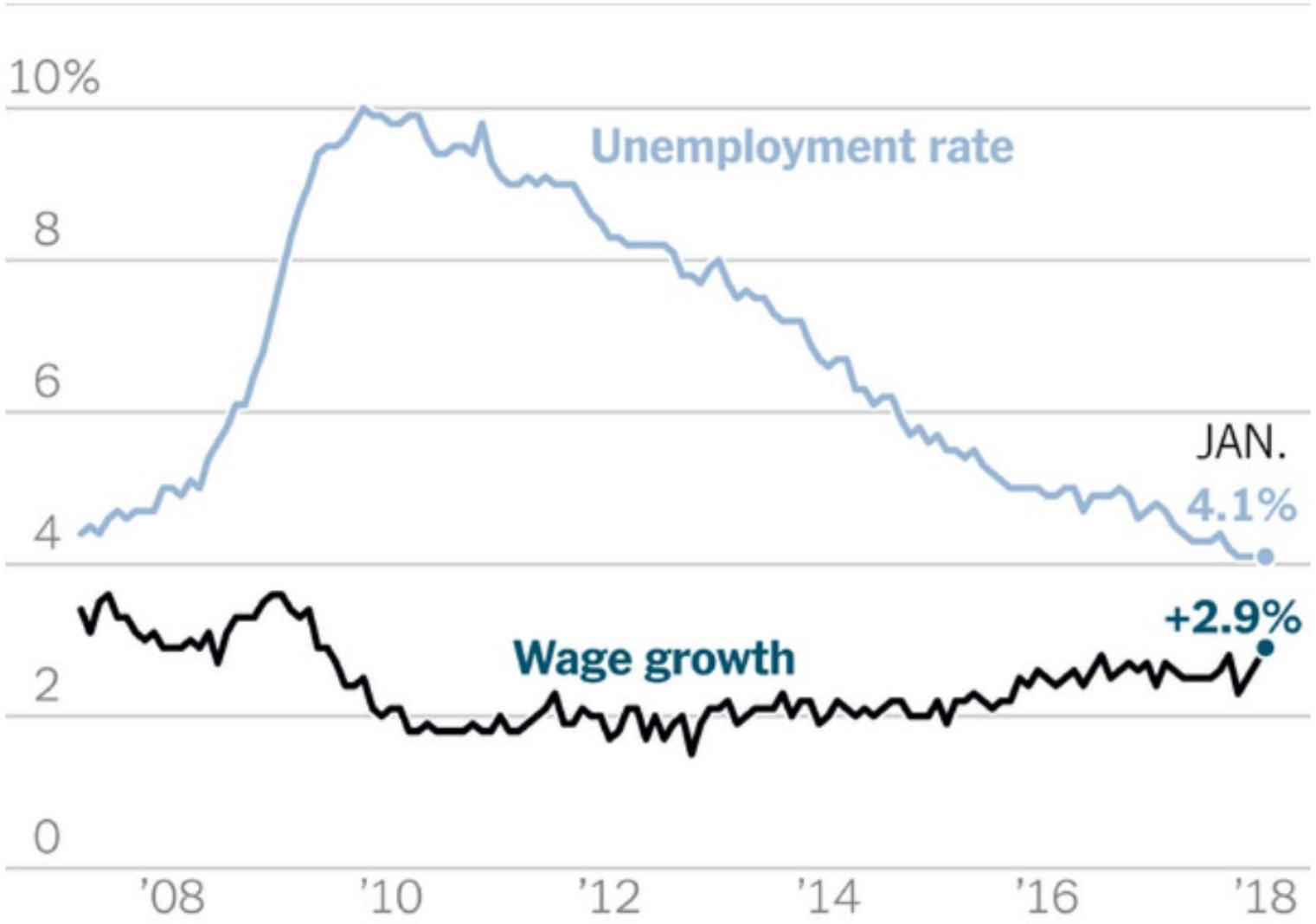


Wage rigidity in the US



6 Reasons That Pay Has Lagged Behind U.S. Job Growth

"People who are marginally employable suddenly become highly employable in a period like this," said Joseph Brusuelas, chief economist of RSM, a financial consulting firm

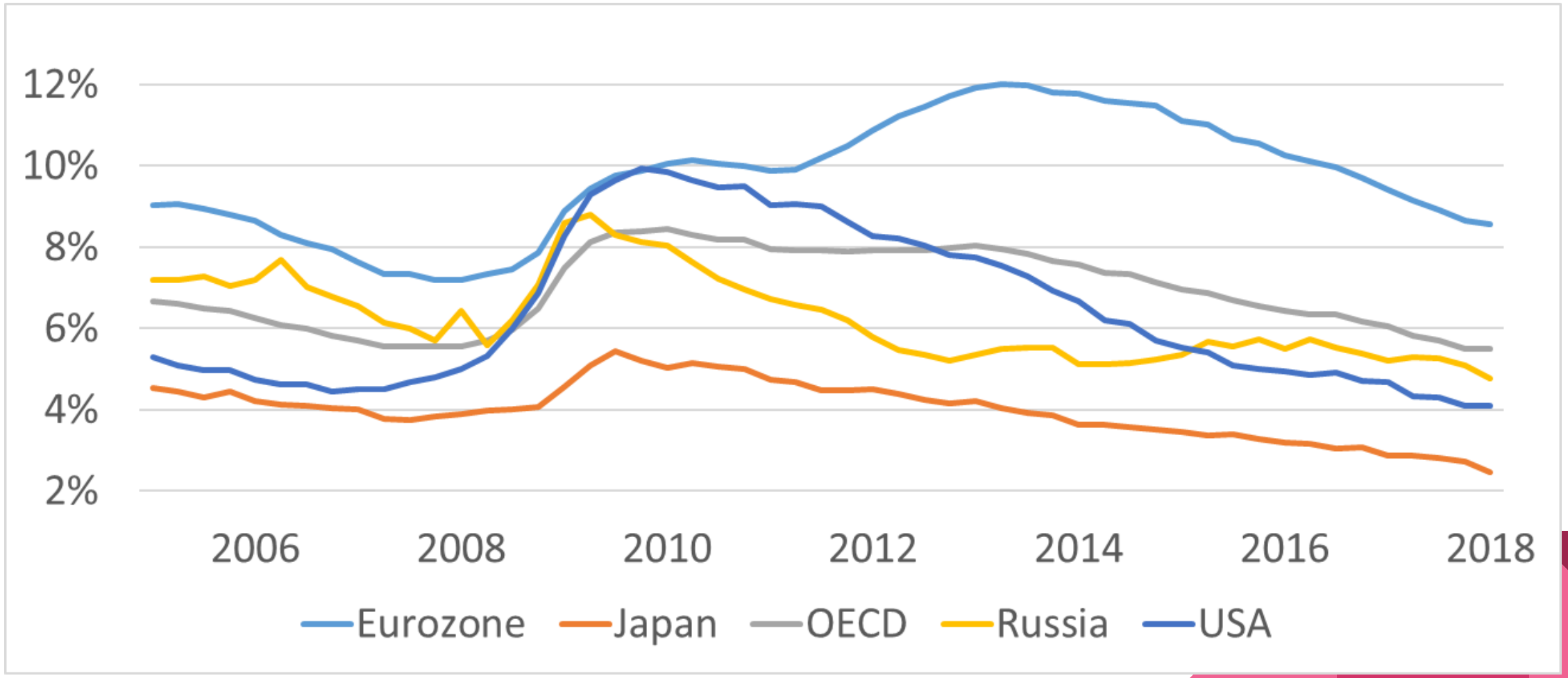
In the graph: wage rises around 2% per year (in line with inflation). Meanwhile, the unemployment rate falls steadily. Only when the economy reaches full employment, wage growth seems to pick up.

Other reasons for unemployment

- **Asymmetric Information**: Usually individuals have more information about their skills than companies.
- **Indivisible Contracting**: Labor contracts are not fully renegotiable at every single moment in time.
- **Searching and matching costs**: Costly to match the skills of people with the jobs requiring such skills.
- **Skills are often non-transferable**: People who are trained in one task may find that businesses need other skills.

All these generate unemployment even if wages are fully flexible.

Unemployment around the world



Unemployment around the world

As with everything in Economics, context is key.

We can see from the graph that unemployment is consistently higher in Europe in comparison with the US.

Unemployment patterns vary from country to country, often due to differences in labor laws.

Unemployment around the world

In the United States, the ideal unemployment rate is 4%, while in France it would be around 6%. Why?

One reason: labor laws.

Labor Laws in the US

One of the major tenets of labor laws is the “employment at will” doctrine.

US employees work at the will of companies that can lay them off at any time without justification (with some exceptions.

Result is a dynamic labor market in which businesses are relatively free to adjust their employment policy to the business cycle.

Minimum wages are low and contracts can be quite flexible.

Labor Laws in France

Employer must be able to justify the termination with a real and serious cause (“cause réelle et sérieuse”).

Judges can reverse firings, both individual and collective, if the court does not find the economic arguments strong enough.

Minimum wage is almost €18,000 (or USD 22,000 as of February, 2018, rates).

Labor reform in 2017 tried to make labor markets a bit more flexible.

Comparing US vs France

Unemployment structurally lower in the US. Easier to find a job there and for high skilled people, wages are higher. But a great number of people who have one (or more full-time jobs) and are still poor.

In France most people with jobs are not poor. But many high-skilled people leave the country (brain drain).

No system is “better”. There are always tradeoffs. US labor market more dynamic, with working people a major issue. In France, labor markets are more sclerotic, and unemployment is a major issue.

Chapter 2.4

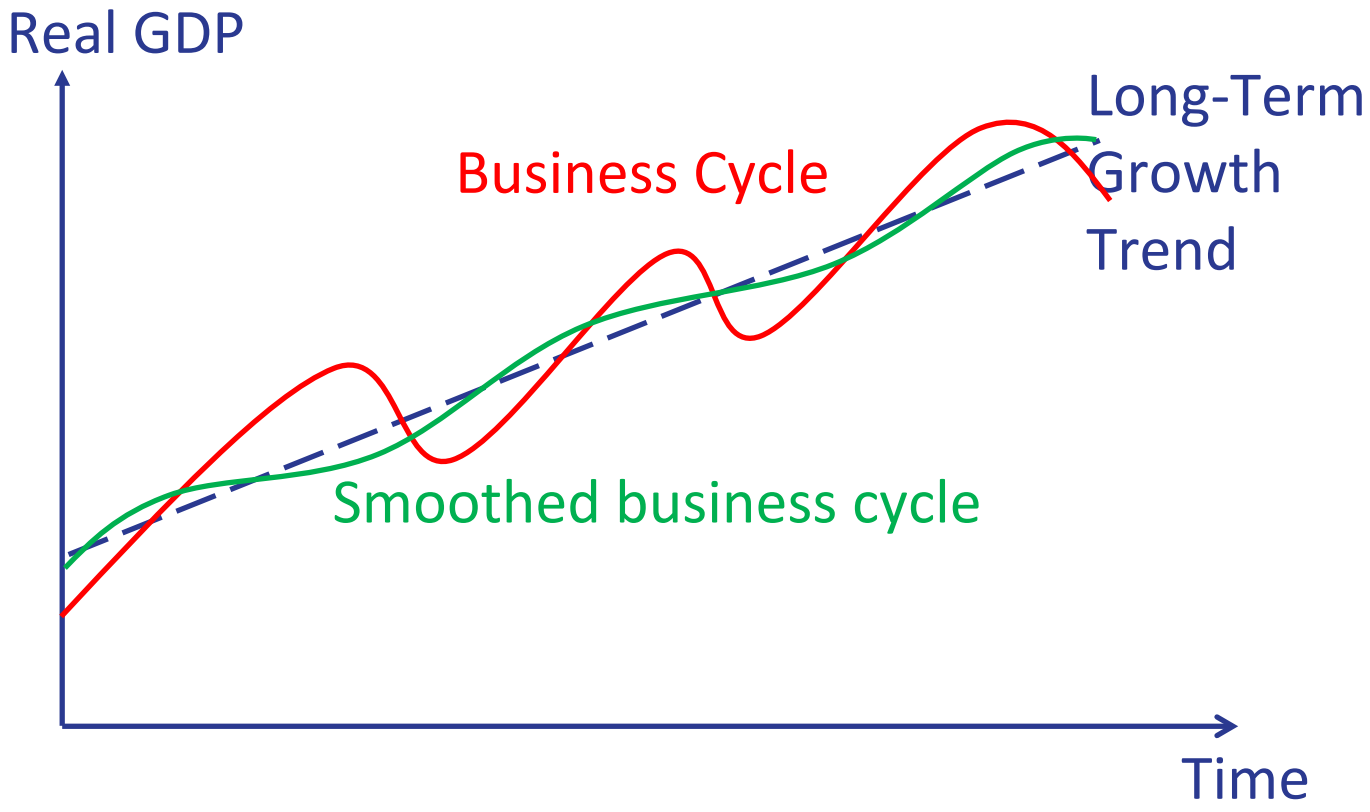
Dynamics

Business Cycles

Economic Policies

Business Cycle--Long-Term Trend

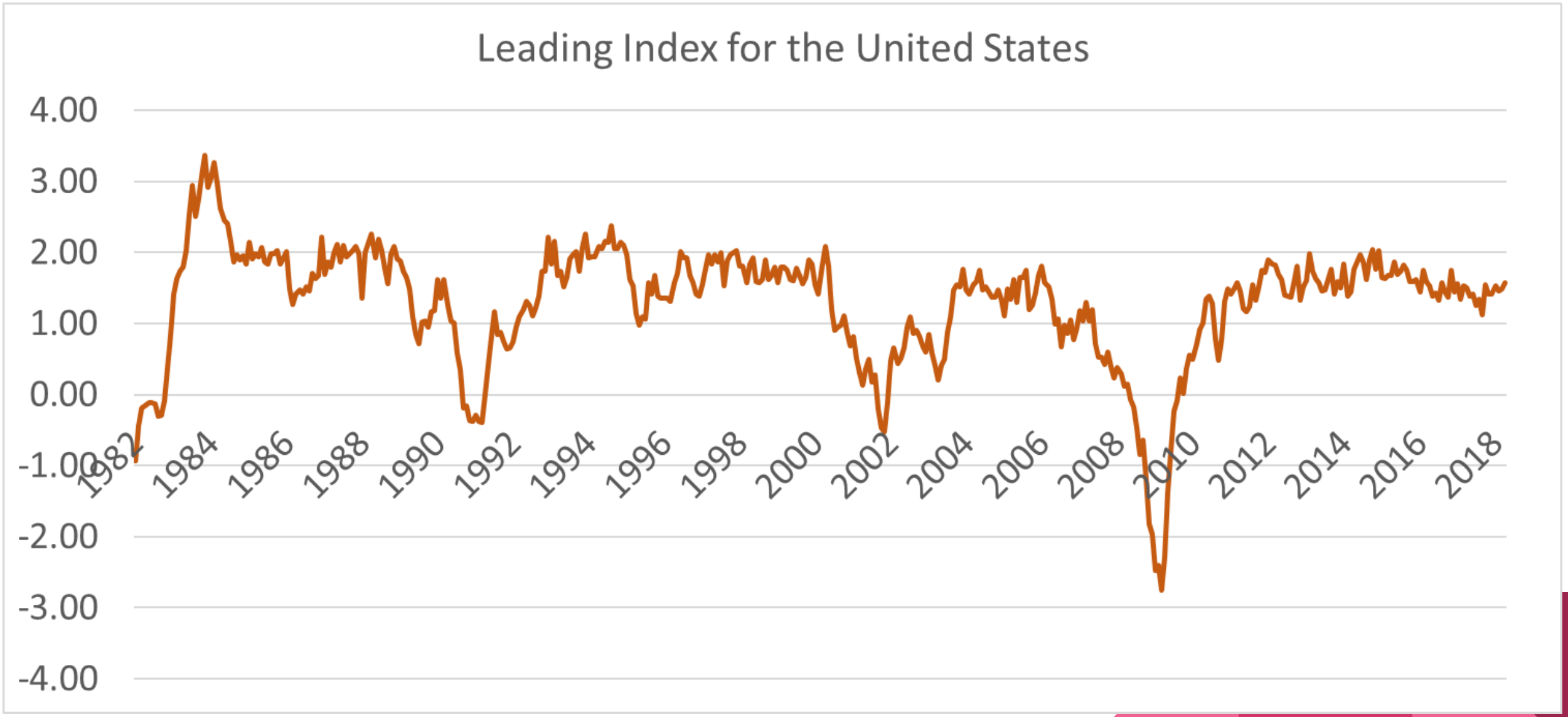
- Expectations of the future play a massive role in determining the shape of the business cycle.
- Expansions usually last longer than recessions.
- During periods of industrialization, economic growth tends to be extremely high; as countries become richer, the growth rate declines.



Average Lengths of U.S.A. Business Cycles, Historically

	Average length (months)		
	1886–1916	1920–1940	1948–2000
Recessions	9.7	14.0	10.7
Expansions	34.0	31.6	55.9

Source: J. Bradford DeLong, "Growth Accounting," http://j-bradford-delong.net/macro_online/growth_accounting.pdf


Leading Index for the United States
4.00
3.00
2.00
1.00
0.00
-1.00
-2.00
-3.00
-4.00
1982
1984
1986
1988
1990
1992
1994
1996
1998
2000
2002
2004
2006
2008
2010
2012
2014
2016
2018


Civilian Unemployment Rate, %, seasonally adjusted
12%
10%
8%
6%
4%
2%
0%
1948
1953
1958
1963
1968
1973
1978
1983
1988
1993
1988
2003
2008
2013
2018

Economic Indicators: Leading Vs. Lagging

Leading Indicators: Indicate Changes in future economic activity

- Stock Prices
- Bond Yields
- Money Supply (M2)

Lagging Indicators: Result of past economic activity

- Unemployment Rate
- Consumer Price Index (CPI)
- Average Duration of Unemployment

Chapter 2.5

Introduction to Economic Policy

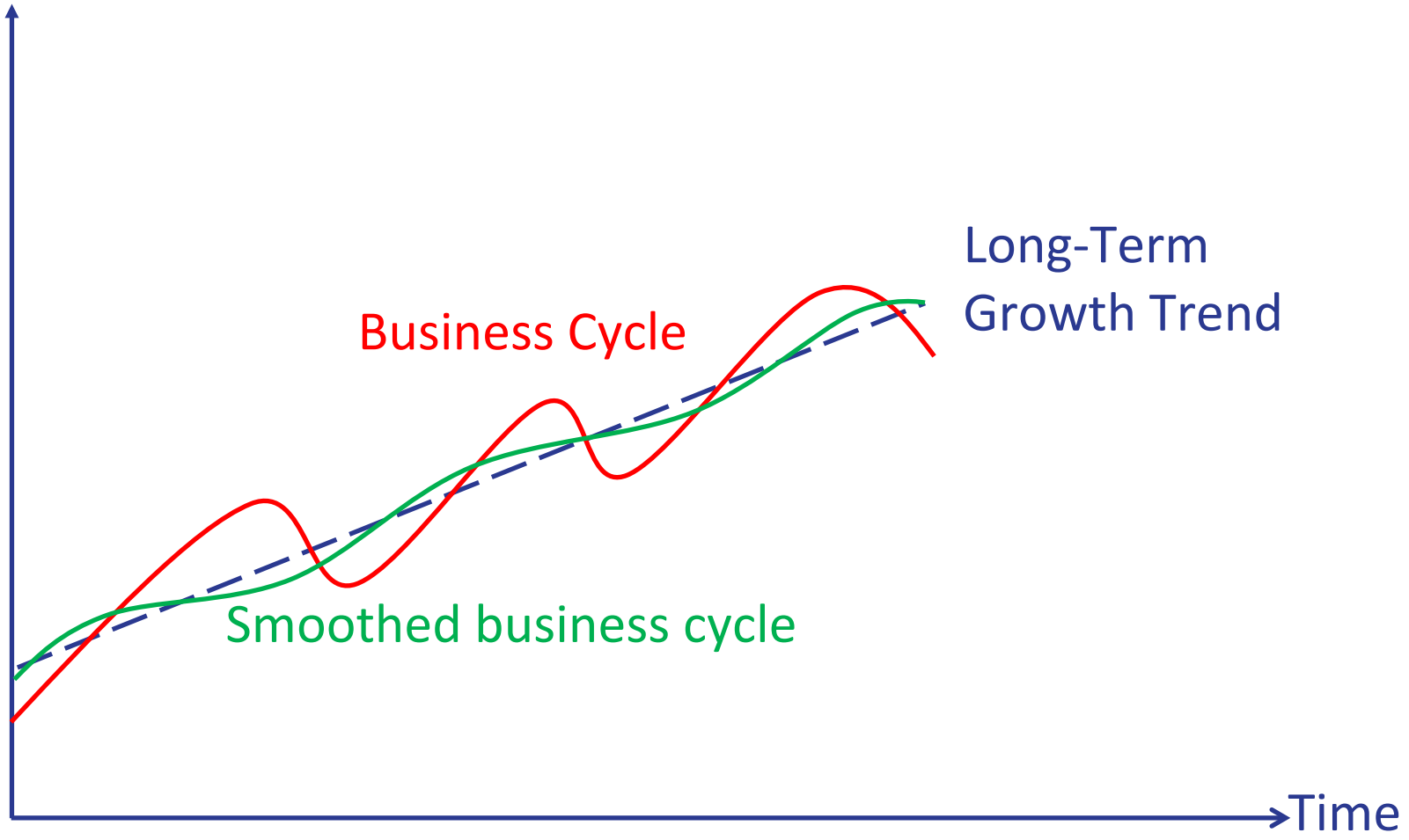
Economic Policies

Governments usually have three tools:

- **Monetary Policy** (Interest rate determination).
- **Fiscal policy** (Taxes and government spending).
- **Currency policy** (Interventions in the foreign currency market).

The goals of these policies would be to smooth out the business cycle i.e. they should be countercyclical.

Major Goals of Economic Policy



Direct goals of economic policy - smoothing of the business cycle and increasing long-term trend

The Catch

- As usual, there is a tradeoff; Policymakers face uncertainty regarding the path of the economy, and hence cannot know for sure whether a policy will be good or bad.
- The effectiveness of economic policy is also context dependent, which means that different policies will be suitable for different economies.