

THE CLASSICAL MODEL

- The Classical model dominated the economics profession before the Great Depression.
- Assumed that business cycle was short-run and would “take care of itself.”
- Emphasis was on long-run economic growth.
- The “Neoclassical” model is based on the “Classical” model – with a few minor modifications.

THE CLASSICAL MODEL

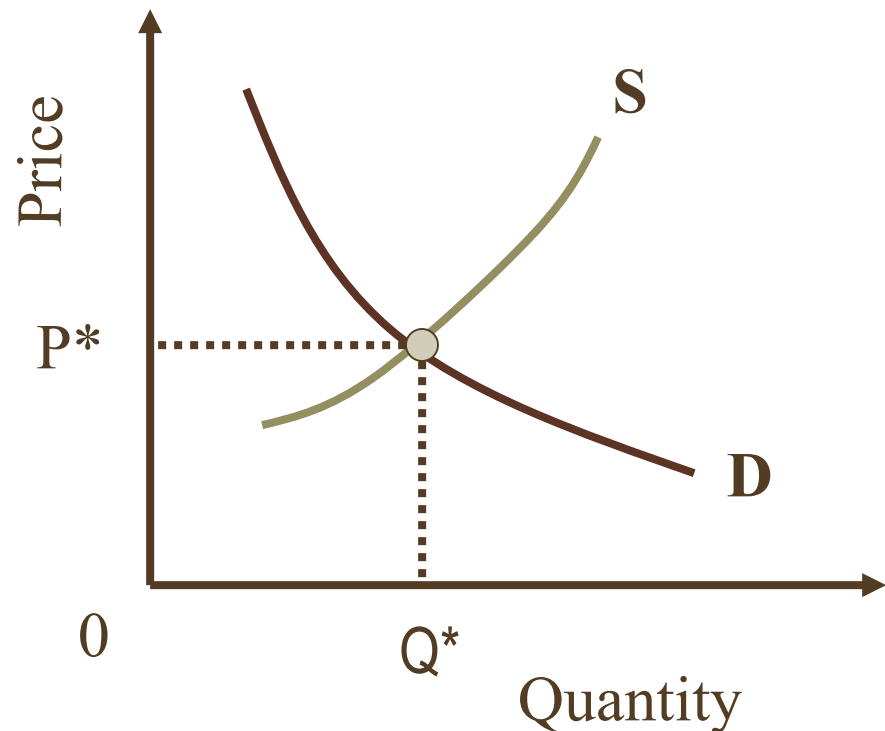
■ Key Ideas:

1. Focus is long-run growth.
 - Short-run fluctuations will adjust automatically.
2. Markets clear (reach equilibrium).
 - Laissez-faire policy.
3. Growth is driven by supply side.
 - Emphasis on resources

CLASSICAL MODEL ASSUMPTION: **MARKETS CLEAR**

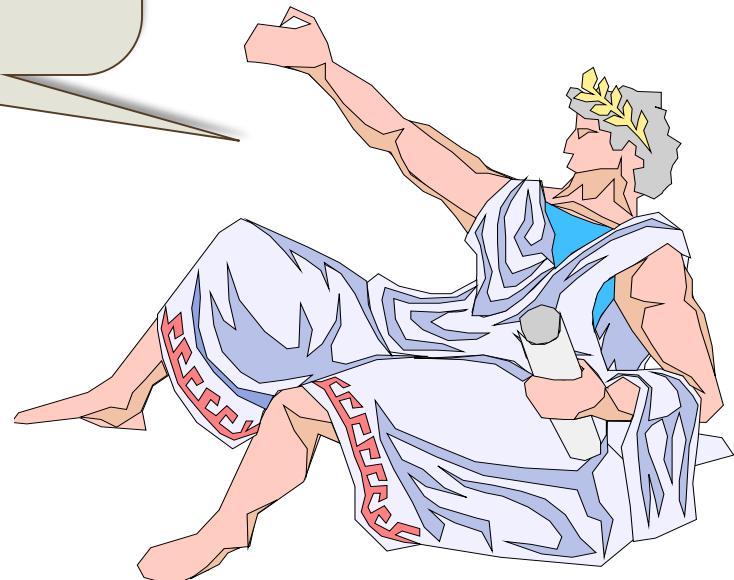
ALL MARKETS CLEAR

- ✓ MARKETS FOR GOODS
- ✓ FACTORS OF PRODUCTION
- ✓ LOANABLE FUNDS



THE CLASSICAL VIEW: **LAISSEZ FAIRE**

It would be better for
all if we just left the
economy alone.



CLASSICAL MODEL ASSUMPTION: **AGGREGATE SUPPLY**

- Classical economists were *primarily* interested in what determines output
- Demand is not a problem in the long-run
- Reason: **Say's Law**

SAY'S LAW

“Supply creates its own demand.”

- By producing goods and services, firms create a total demand for goods and services equal to what they have produced.

SAY'S LAW

- Full-employment will be maintained automatically.
- Total spending will be sufficient to produce the total output produced.

Say's law rules out the possibility of a widespread surplus of goods.



SAY'S LAW

\$10
Trillion

=

\$10
Trillion

=

\$10
Trillion

Total
Output

Total
Income

Total
Spending

Demand

- **Total Spending**

= Sum of the planned purchases of:

- Household sector (C)

- Business sector (I^P)

- Government sector (G)

$$= C + I^P + G$$

Note: the ^P in I^P means “planned”

Spending by Business Firms

I^p = Planned spending by business firms on capital goods.

$I^p = I - \text{changes in inventories}$

- Changes in inventories are “unplanned.”
- Occur when firms sell less/more than expected.

Household Spending

C = Consumption Spending out of Disposable Income.

Disposable Income = Income after Net Taxes.

$$Y_d = Y - T$$

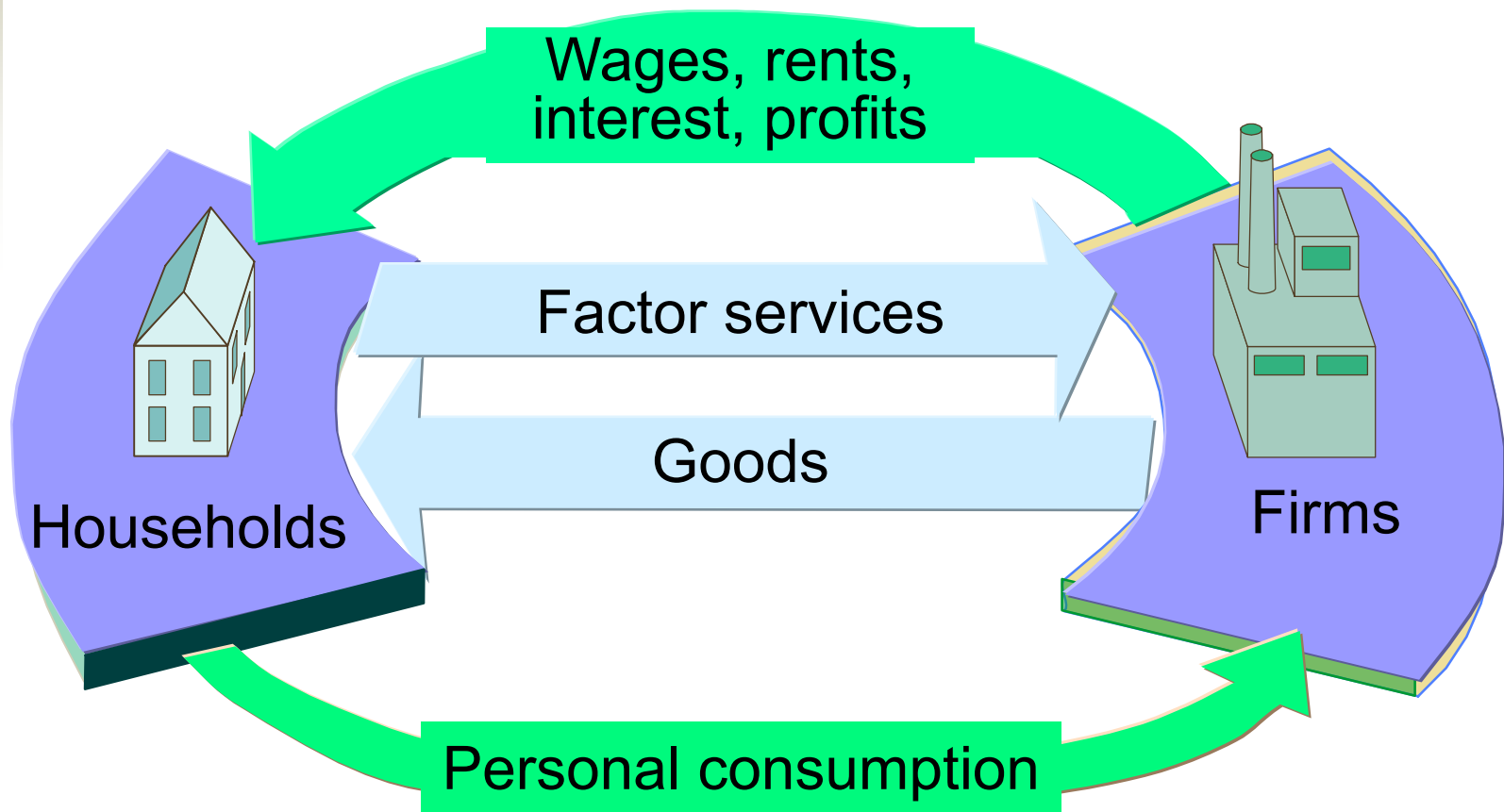
Net Taxes = Taxes – Transfers

$$T = T_x - T_r$$

Government Spending

G = Government purchases of goods and services

- **Does not include Transfers** (money transferred from government to households, e..g. Social Security)
- **Includes spending by all levels of government** (Federal, state, local)



The Circular Flow

Total Spending

$$\begin{aligned}\text{Total Spending} &= C + I^P + G \\ &= \text{Output!}\end{aligned}$$

Classical Conclusion: Output generates **sufficient income** to purchase everything produced.

As long as everything is spent!

Leakages and Injections

- **Households:**

$$C = Y_d - S$$

S = Savings

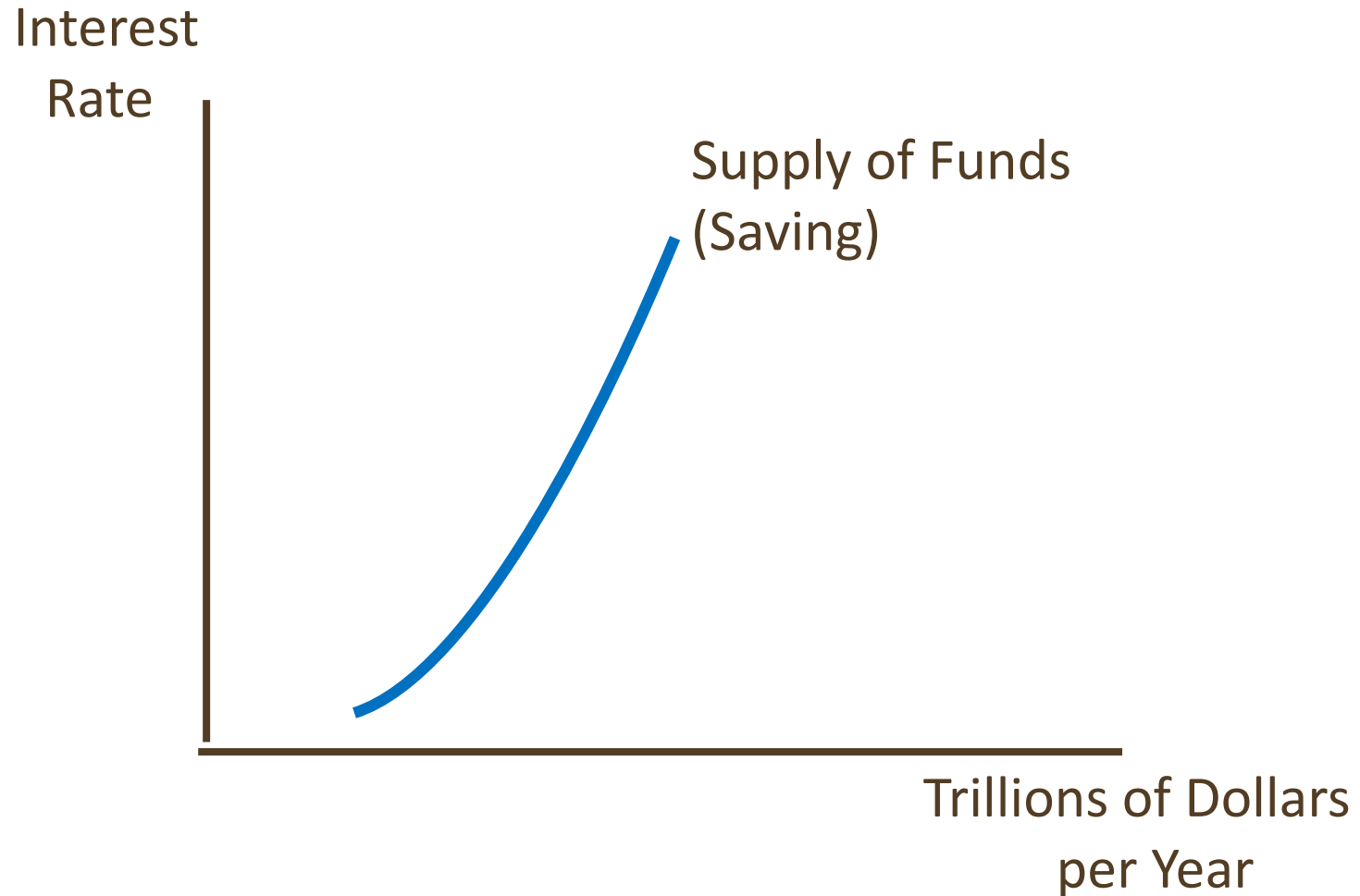
What do households do with their savings?

The Loanable Funds Market

■ Demand for Loanable Funds

- Savers supply funds to borrowers
- Households receive interest payments on these funds.
- Quantity of funds supplied depends on the interest rate

The Loanable Funds Market

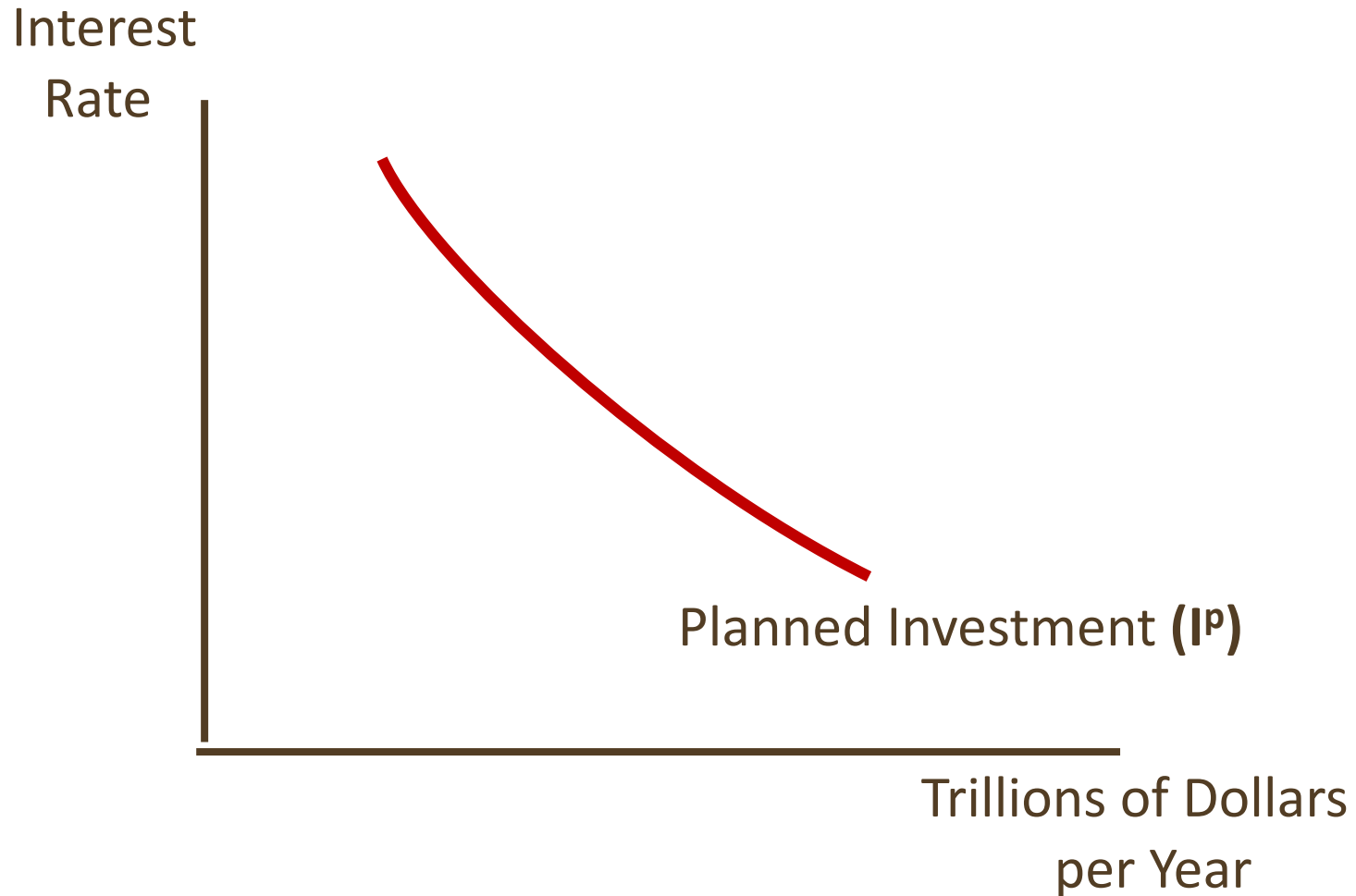


The Loanable Funds Market

■ Demand for Loanable Funds

- Businesses: to finance planned investment spending.
- Government: to finance deficit spending.
- Quantity of funds supplied depends on the interest rate

The Loanable Funds Market



Loanable Funds Market: Example

- Lower interest rate means loans are cheaper. Example, firm is considering 3 projects:
 - Project #1 has expected return of 4%
 - Project #2 has expected return of 5%
 - Project 3 has expected return of 6%
- If interest rate is 5% then, only Projects #2 and #3 are worthwhile.
 - Project #1 would yield only 4%, but funds would cost 5%.
- If interest rate falls to 3%, then all of the projects are worthwhile.
- i.e. lower interest rate, higher quantity demand of funds.

Government Demand for Loanable Funds

Budget = Revenues – Expenditures

- Revenues = Taxes = T_x
- Expenditures = Purchases plus Transfers = $G + T_r$

$$\text{Budget} = T_x - (G + T_r)$$

$$\text{Budget} = T_x - G - T_r$$

$$\text{Budget} = T - G$$

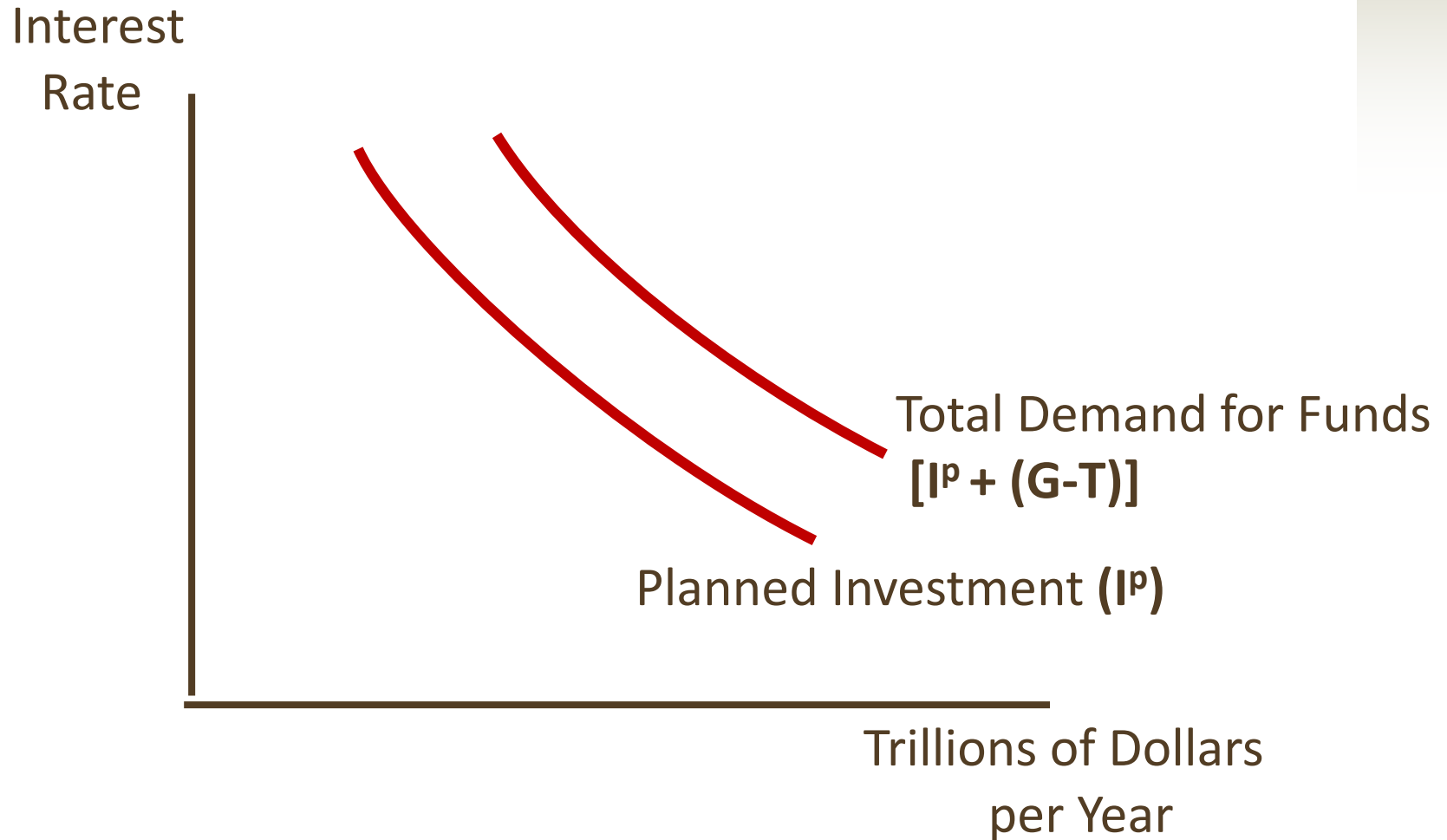
- $T = \text{Net Taxes} = T_x - \text{Transfers}$

Government Demand for Loanable Funds

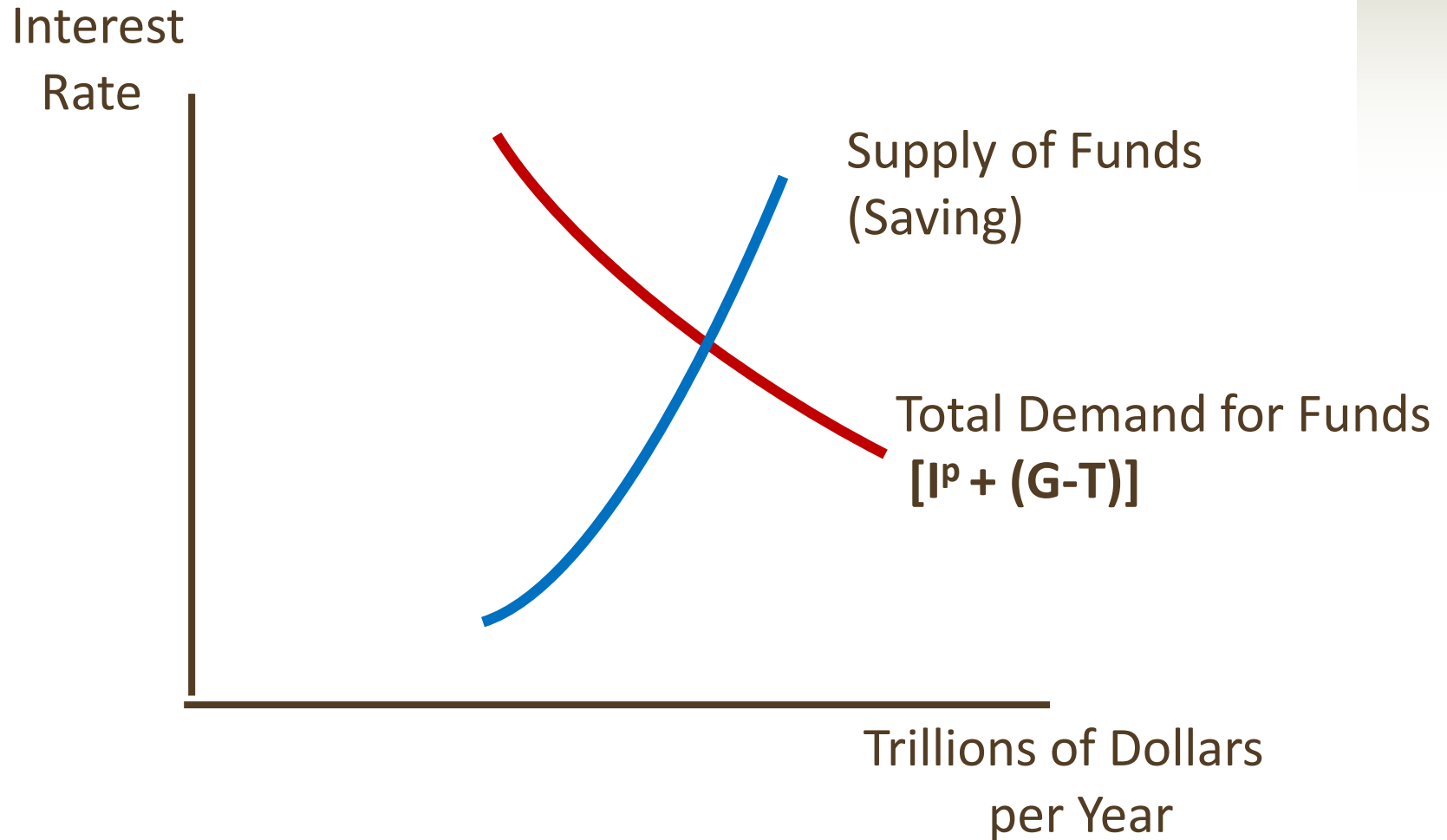
- Federal Government Budget:
 - $T - G < 0$ is a budget deficit
 - $T - G > 0$ is budget surplus
 - $T - G = 0$ is balanced budget

Note: Government borrowing is not dependent on interest rate. It is dependent on political decisions.

The Loanable Funds Market



The Loanable Funds Market



The Loanable Funds Market

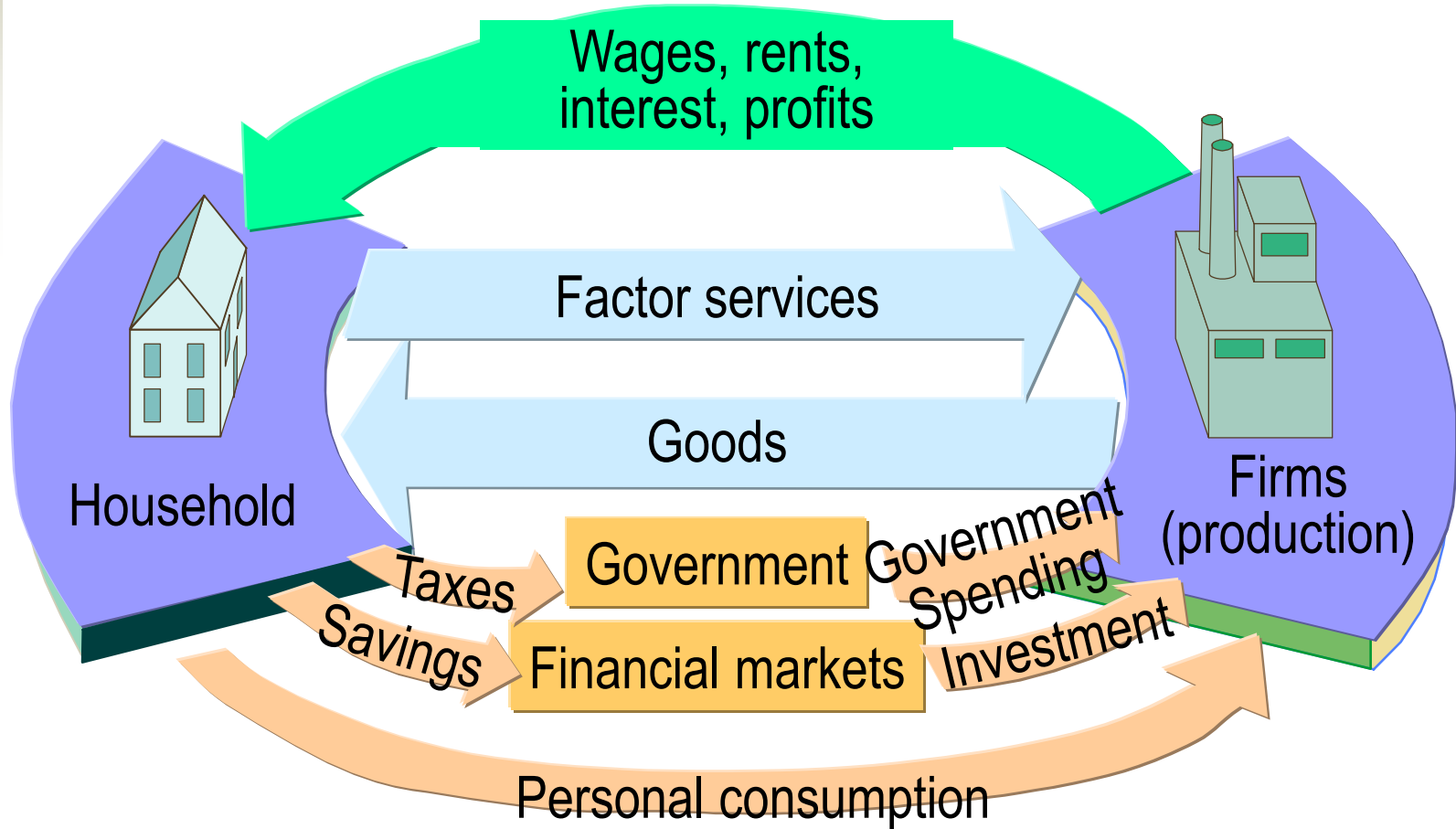
- **KEY IDEAS:**

- Savings are a function of the interest rate.
- Investment spending is a function of the interest rate.
- Both are, therefore, determined in the **same market.**

The Loanable Funds Market

- **KEY IDEAS:**
- Classical model assumes all markets clear.
 - Loanable funds market will reach equilibrium,
 - Q_s (savings) = Q_d (investment)
- Leakages = Injections
- **Say's law holds:**
 - Total spending = total output

The Circular Flow



Leakages & Injections Summary

Leakages:

- From Household Income: Savings & Net Taxes

Injections:

- From Business: Investment
- From Government: Government Purchases

Leakages = Injections

$$S + T = I + G$$

Open Economy*

$$\text{Spending} = C + I^P + G + (X - IM)$$

X = Exports

- Exports = Injection into Domestic Spending from other countries

IM = Imports

- Imports = Leakage from Domestic Spending.

- *Open economy means an economy that engages in international trade and finance.

Open Economy

Trade Balance = $X - M$

- Trade Deficit: $X < M$ or $(X - M) < 0$
- Trade Surplus: $X > M$ or $(X - M) > 0$
- Balanced Trade: $X = M$

Open Economy

Open Economy Model:

Y = Income from GDP

$$Y = C + I^P + G + (X - IM)$$

E = Domestic Expenditures

$$E = C + I^P + G$$

$$Y - E = X - M$$

Open Economy

Trade Balance

- Difference between income and expenditures = trade balance

$$Y - E = X - M = \Delta \text{ Assets}$$

If $Y < E = X < E =$ Sale of Assets

If $Y > E = X > E =$ Asset accumulation.

Classical Model View

- **Balanced trade: Exports = Imports**
 - Say's law holds
 - Total spending on the country's output will be equal in value to its total output

Classical Model View

Trade deficit = $IM - X$

- Sale of assets = Supply of loanable funds by foreigners.
- Supply of loanable funds from foreigners = trade deficit.
- Total supply of loanable funds = supply from domestic savings + supply from foreigners.

Classical Model View

Trade deficit = $IM - X$

- Loanable Funds Market Equilibrium:
- $S + (IM - X) = I^P + (G - T)$
- Leakages = Injections

Say's law still holds

The Circular Flow

