Government Intervention in Price System

MEGA LECTURE

AS Economics

Why do governments intervene in the operations of private sector?

- Since every economy is faced with basic economic problem of scare resources and infinite needs / wants, governments want the economy to achieve Economic Efficiency.

MEGA LECTURE

Economic Efficiency

- Economic Efficiency means making the best possible use of resources.

- Economic efficiency is defined as producing at the lowest possible cost AND producing optimal quantity of goods that yield the highest level of satisfaction for economy's citizens.

MEGA LECTURE

Economic Efficiency

- Producing goods at the lowest possible cost is known as Productive Efficiency

AND

- Producing the optimal quantities of goods is known as Allocative Efficiency

MEGA LECTURE

Market Failiure

- Absence of Economic Efficiency, either Productive or Allocative Efficiency, is known as market failure.

- Whenever there is a case of market failure the government will step in to fix this.

MEGALECTURE

Government Intervention in the Market

- In case of market failure, governments use different economic policies to achieve Economically Efficient outcome

- In this unit, we will study about these policy instruments that are used to correct market failure.

MEGA LECTURE

Externalities

- Any transaction that has positive or negative effect on the 3rd party is known as Externality.

- 3rd party refers to individuals or group of individuals who are not directly part of certain transaction.

MEGA LECTURE

Examples of Externalities

- Simple example of negative externality would be cars emitting harmful gases in the environment, passive smoking, drunk driving.

- Simple example of positive externality would be planting a tree, getting vaccinated against transferable disease like normal flu and providing free ride to others.

MEGA LECTURE

Social Cost

- Social Cost refers to the total cost faced by the society from any transaction.

- Social cost is sum of Private Cost and External Cost.

MEGALECTURE

Social Cost = Private Cost + External Cost / Negative Externality

Social Cost

- Private Cost is the cost faced by the 1st party that is directly involved in any transaction like person using the car like fuel expense and car maintenance expense.

- External Cost or Negative Externality is the harmful effect faced by 3rd party / someone who is indirectly related to the transaction like air pollution and rash driving.

MEGA LECTURE

Social Benefit

- Social Benefit is the total benefit received by the society from any transaction.

- Social Benefit is sum of Private Benefit and External Benefit

Social Benefit = Private Benefit + External Benefit / Positive Externality

MEGALECTURE

Social Benefit

- Private Benefit is the benefit received by the 1st party like the person directly involved in the transaction like car owner in terms of convenience and time saved from using personal car.

- External Benefit or Positive Externality is the benefit received by the 3rd party / someone who is indirectly related to the transaction like free ride from a friend.

MEGA LECTURE

Why do markets fail in presence of externalities?

- Since individuals solely make their decision based on Private Benefit and Private Cost this makes people under-consume goods with positive externalities and over-consume goods with negative externalities.

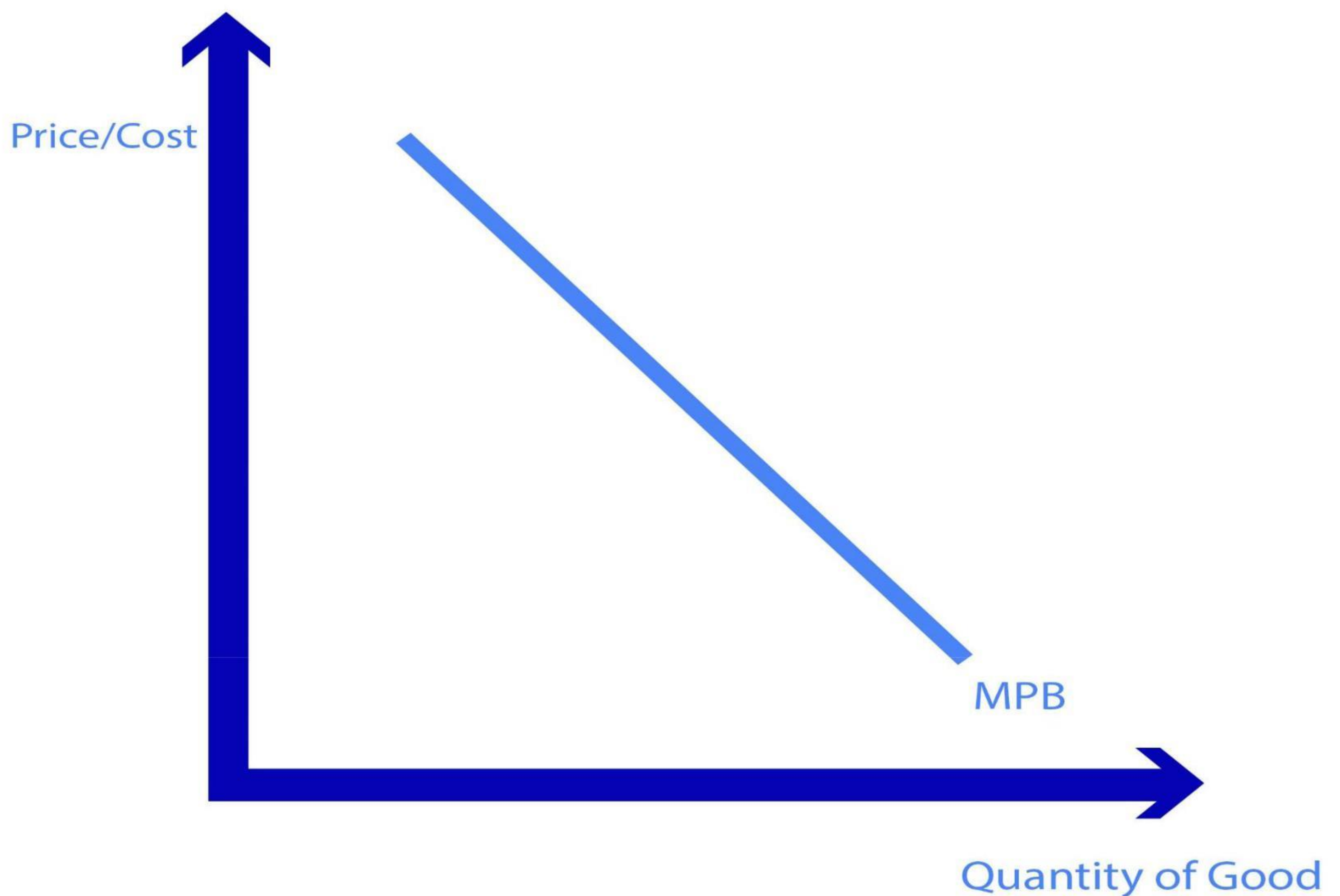
MEGALECTURE

Why do markets fail in presence of externalities?

- Absence of Allocative Efficiency due to under and over consumption is what causes markets to fail in the case of externalities.

MEGA LECTURE

Negative Externality

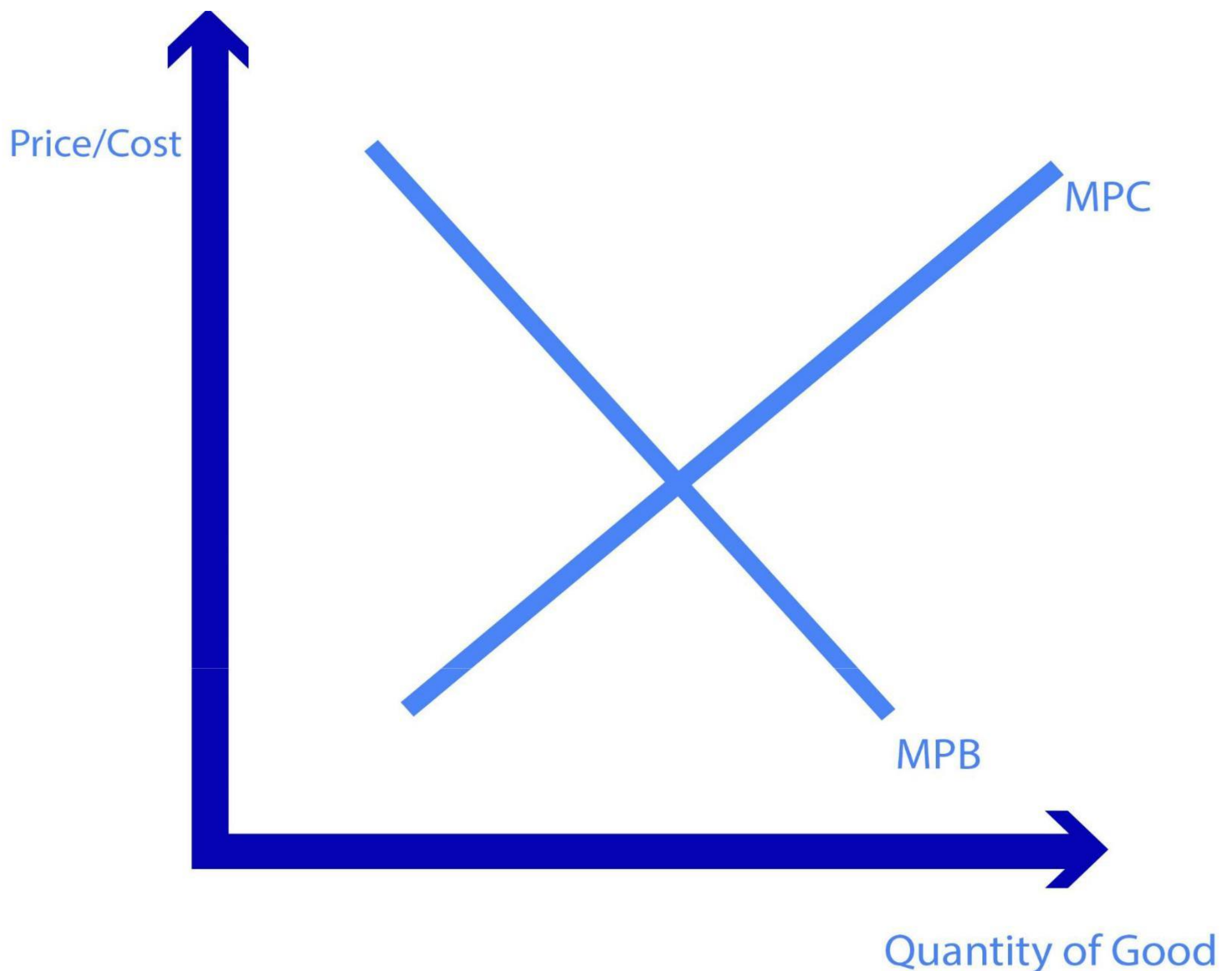


MPB stands for Marginal Private Benefit.

MEC

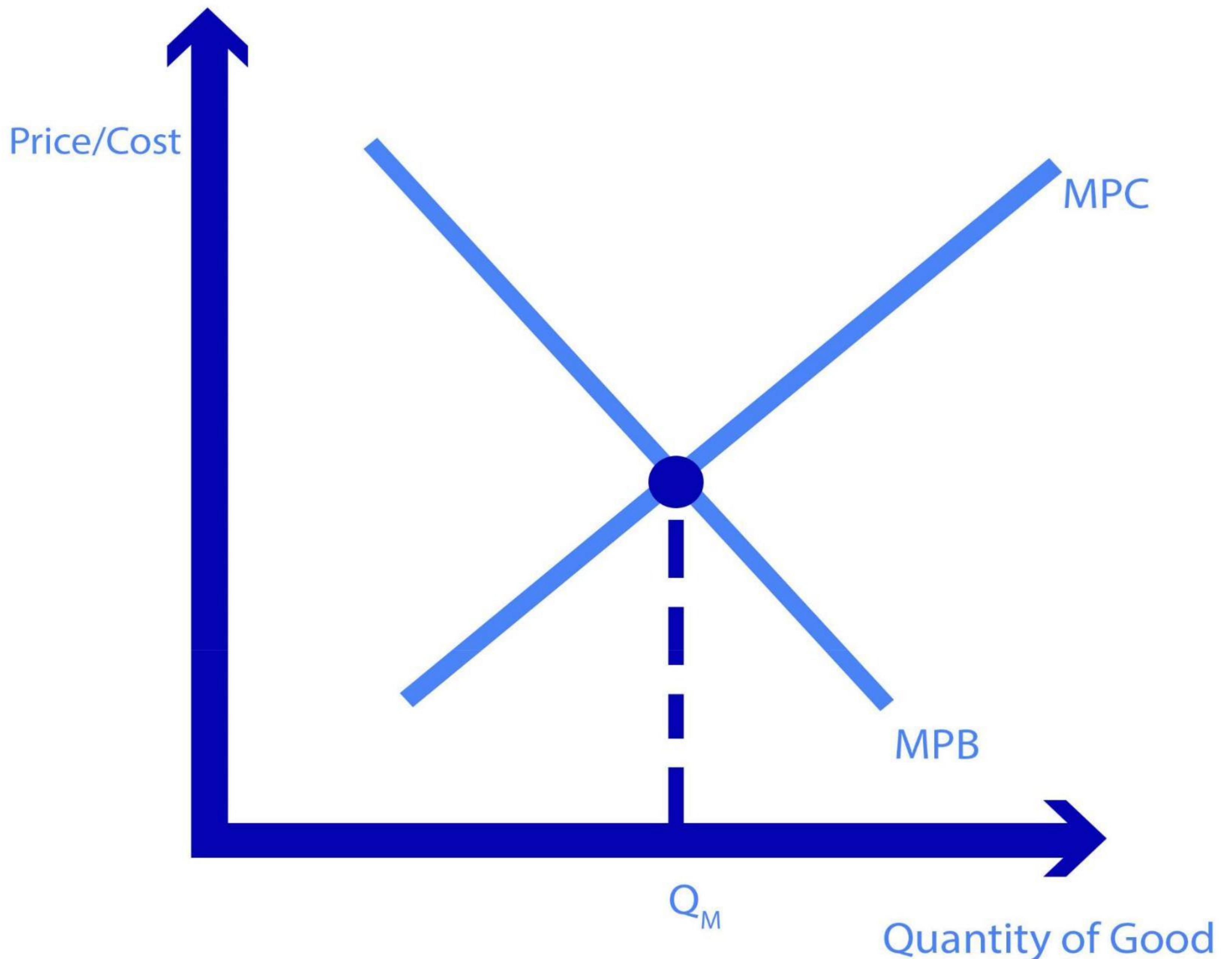
Marginal refers to additional and so Marginal Private Benefit refers to additional benefit received by 1st party like car owner from each additional unit of lets say fuel used.

Negative Externality



MPC stands for Marginal Private Cost. Marginal refers to additional and so Marginal Private Cost refers to additional cost incurred by 1st party like car owner from each additional unit of lets say fuel used. Example price of each unit of fuel.

Negative Externality

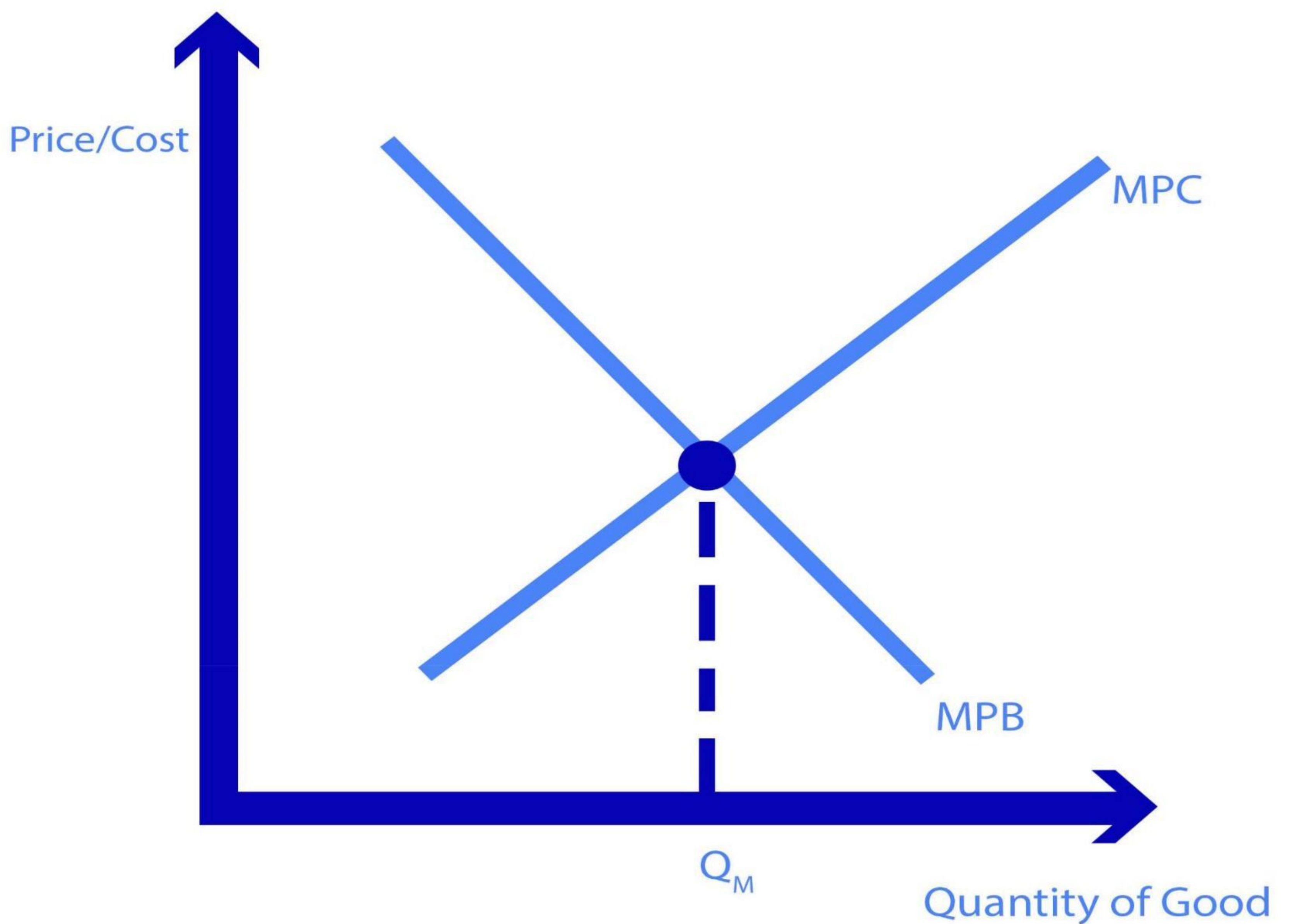


MEC

QM refers to Market Equilibrium and it is the point where Marginal Private Cost is equal to Marginal Private Benefit.

As mentioned earlier, because individuals only care about their Private Cost and Private Benefit and therefore they will consume at the point where these 2 are equal.

Negative Externality

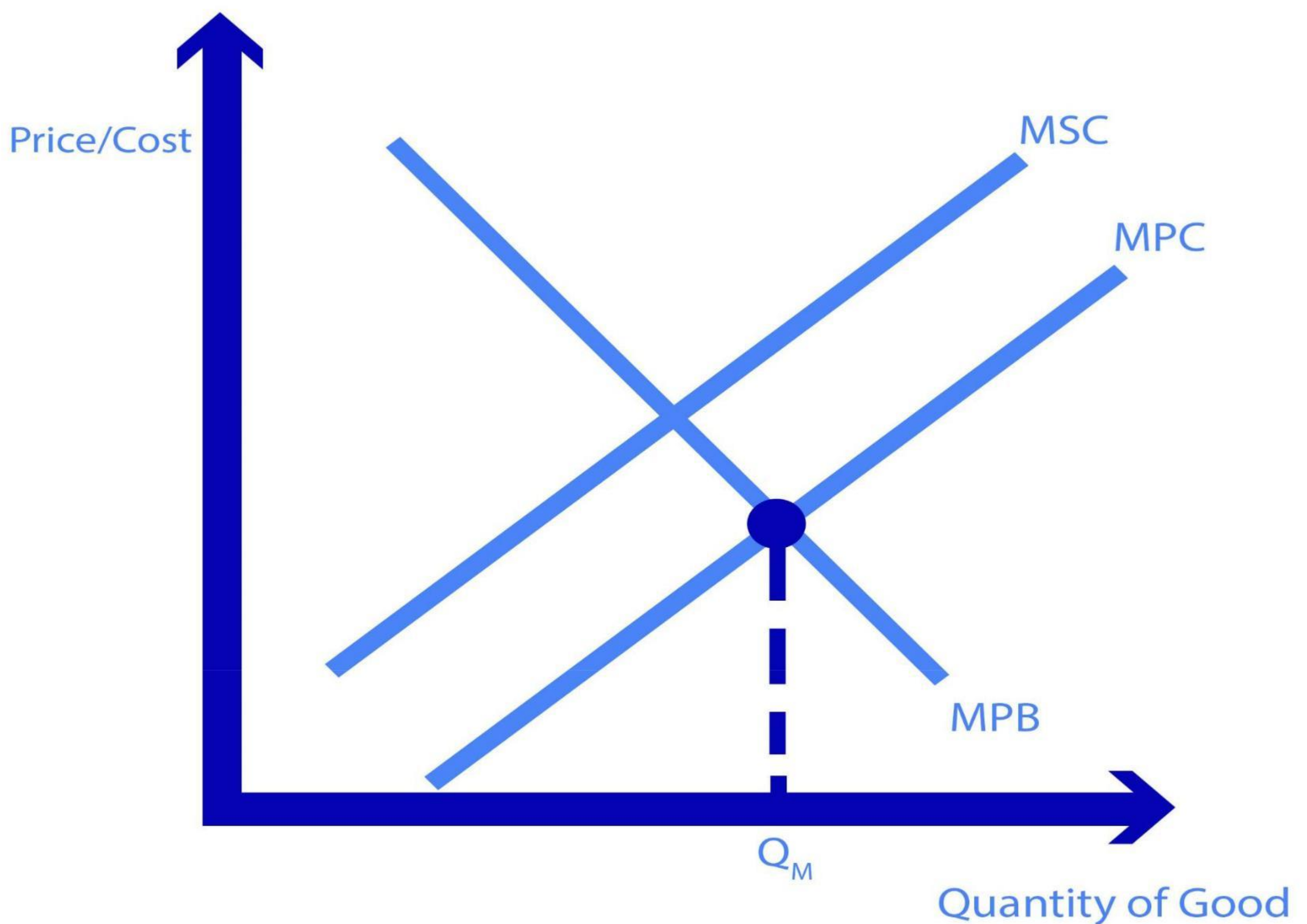


MSC refers to Marginal Social Cost Marginal External Cost (MEC) refers to harmful effect on 3rd party from use of each unit of fuel.

So when MEC is added to MPC we get MSC. Since MSC is more due to MPC that is why MSC is drawn to the left of MPC.

MEGA

Negative Externality

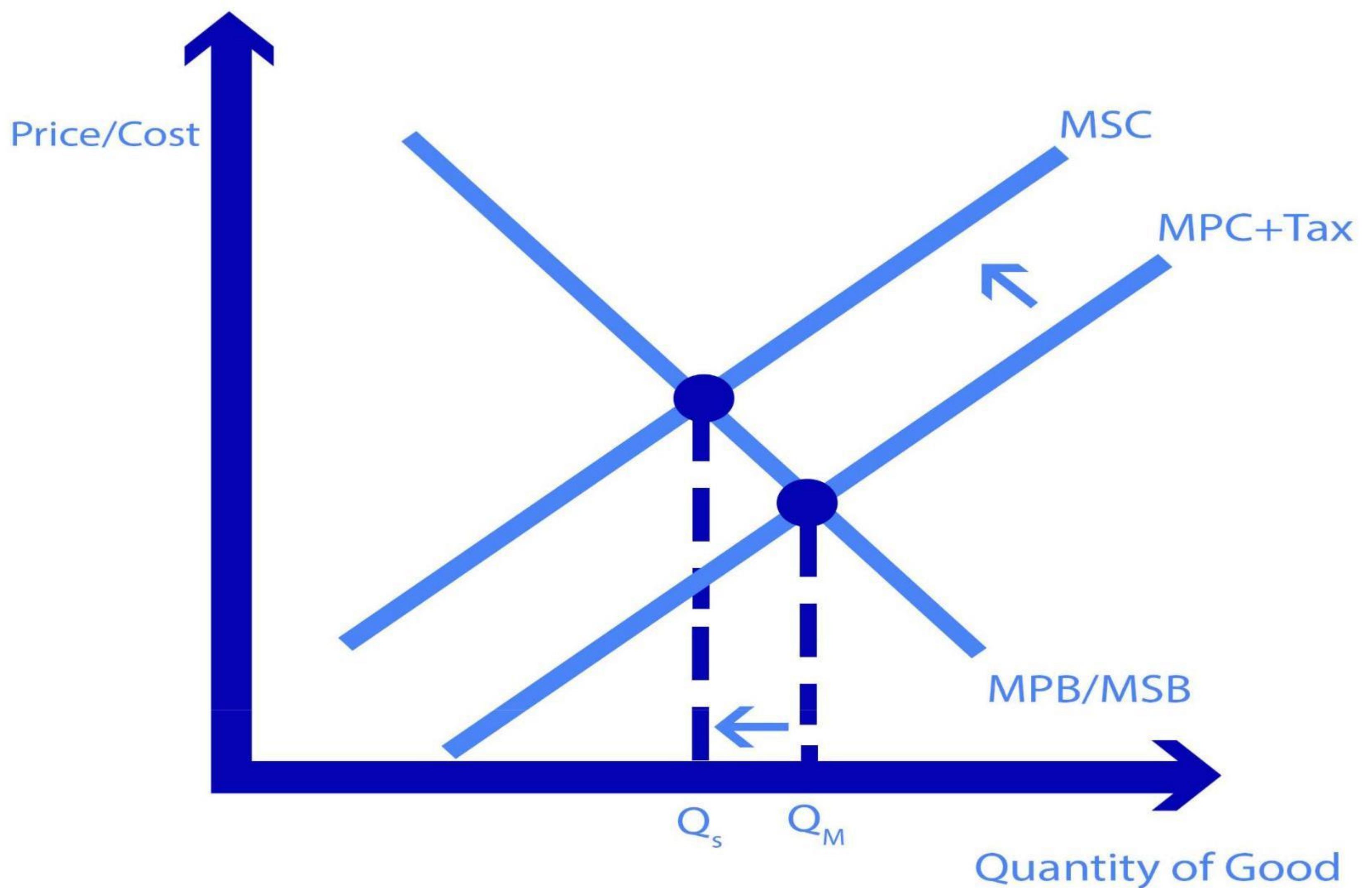


MEGA

Socially desirable equilibrium which government wants the market to attain is where Marginal Social Cost (MSC) is equal to Marginal Social Benefit (MSB).

In this case we are assuming that there is no external benefit. That is why Marginal Social Benefit is equal to Marginal Private Benefit.

Negative Externality

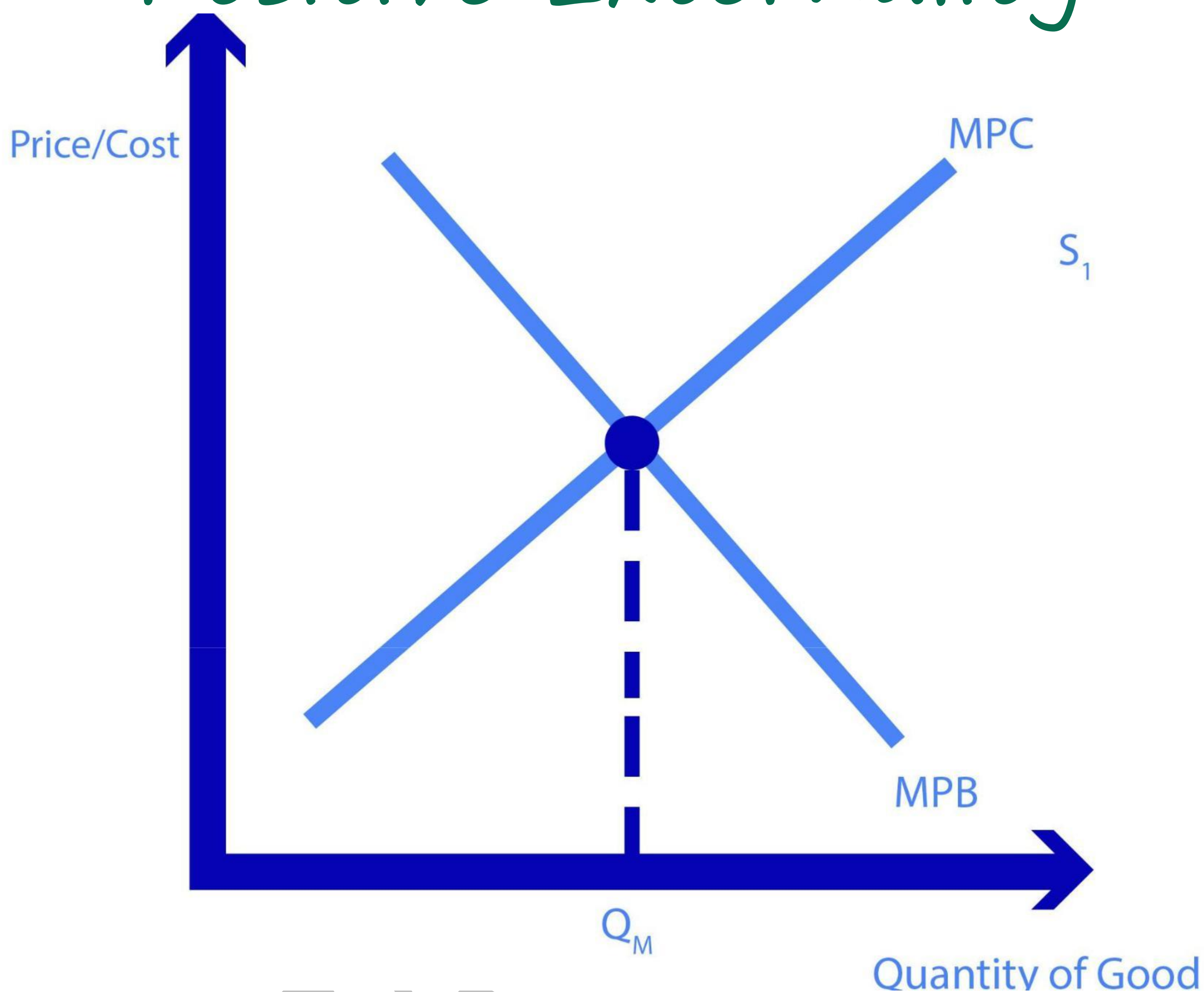


Hence to bring fuel consumption down from QM to QS the government will impose indirect taxes which will cause the MPC to shift upwards to MSC.

MEGA L

Now MSC is intersecting with MPB / MSB at the point which is equal to QS. Hence consumption has been brought down from QM to QS.

Positive Externality



MFGA

MPB stands for Marginal Private Benefit.

Marginal refers to additional and so Marginal Private Benefit refers to additional benefit received by 1st party like person getting him / herself vaccinated against flu

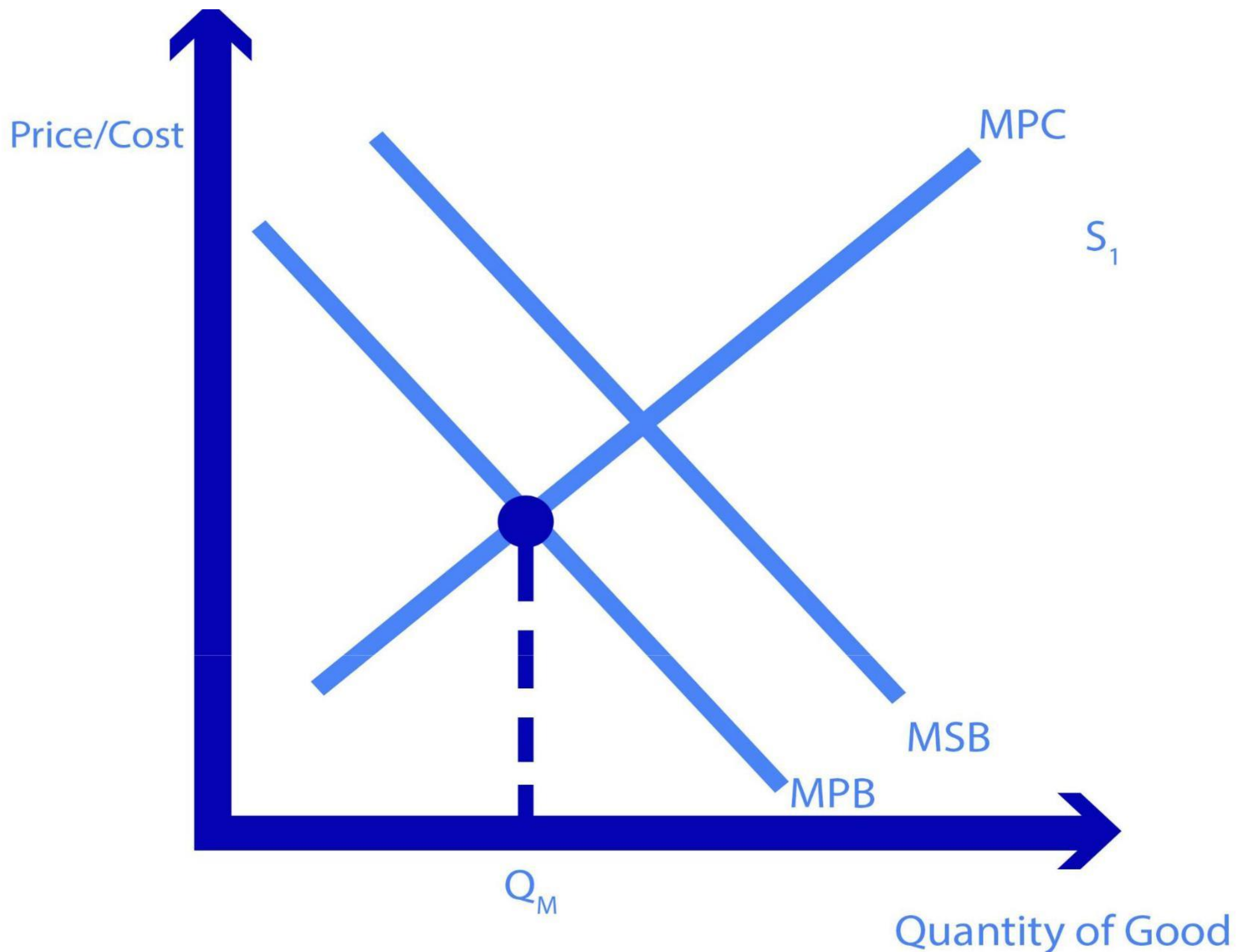
Positive Externality

MPC stands for Marginal Private Cost. Marginal refers to additional and so Marginal Private Cost refers to additional cost incurred by 1st party like person getting him / herself vaccinated against flu.

Where the 2 graphs are equal it is QM, the quantity of vaccinations that the market consumes.

MEGA LECTURE

Positive Externality

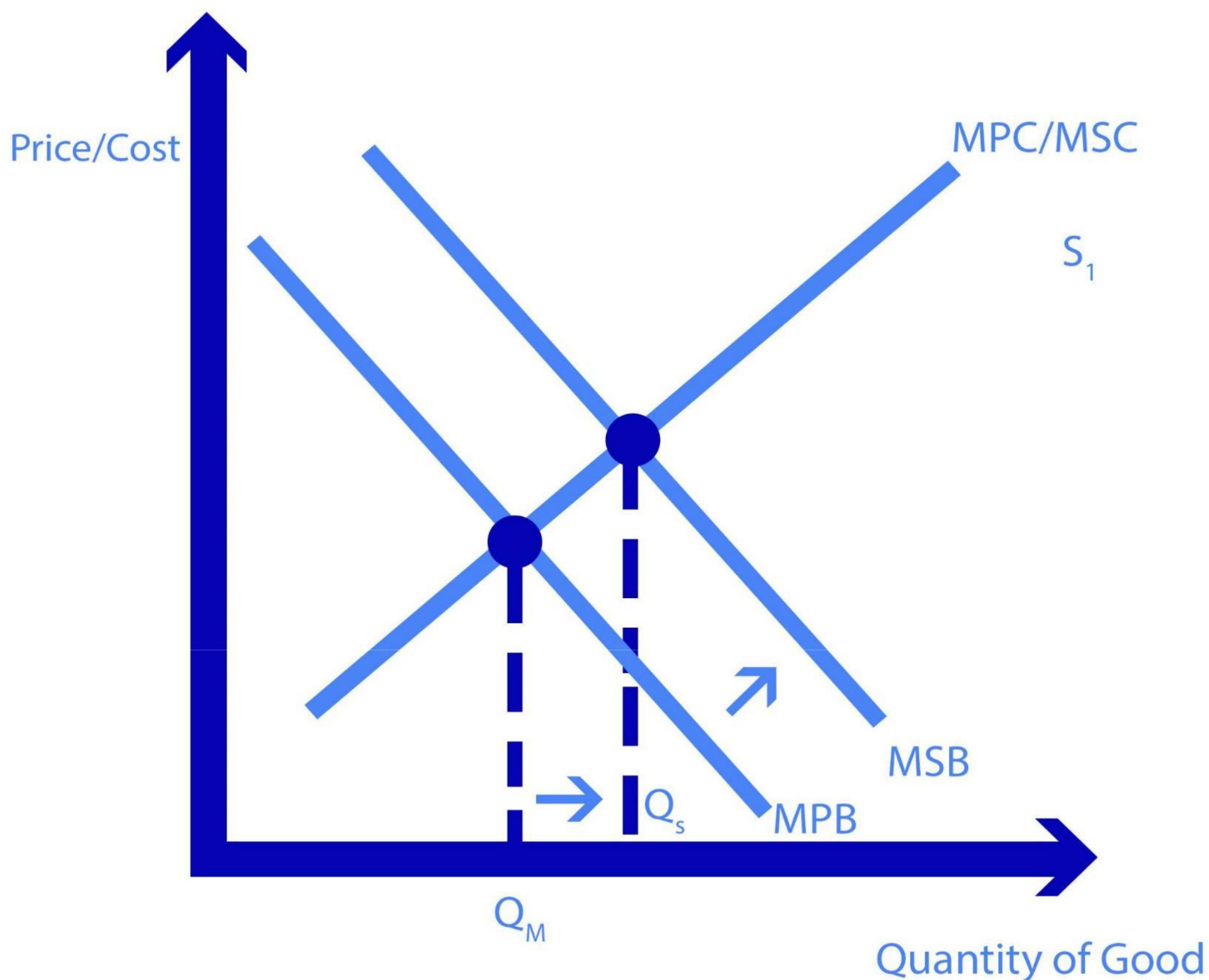


MEC

When Marginal External Benefit is added to Marginal Private Benefit it gives us Marginal Social Benefit.

Therefore Marginal Social Benefit will be higher than Marginal Private Benefit.

Positive Externality

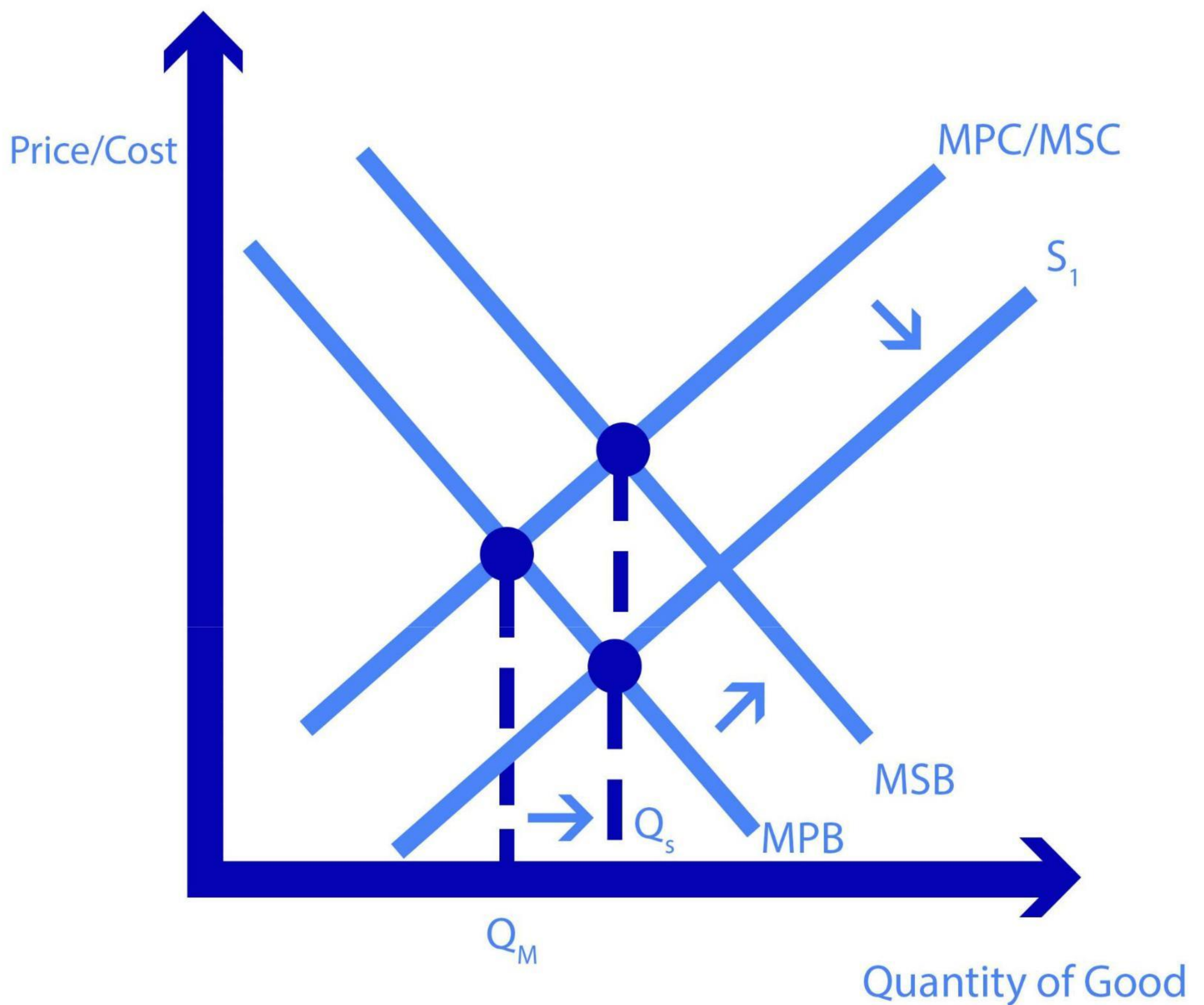


MFCJ

Where Marginal Private Benefit is equal to Marginal Private Cost it is where the market will consume and it is labelled as QM.

When Marginal Social Cost is equal to Marginal Social Benefit it will be socially desirable equilibrium point which is labelled as QS.

Positive Externality



To increase the quantity of vaccination the government will provide subsidies to encourage more people to get vaccinated.

ML

Reduction in cost of vaccination will cause the MPC / MSC to shift rightwards. Hence the quantity consumed is brought up from QM to QS.

MEGA LECTURE

Cost Benefit Analysis

- Unlike private sector that considers only Private Cost and Private Benefit to decide whether a decision should be undertaken or not, government considers Social Costs and Social Benefits to decide about any potential project.
- Cost-benefit Analysis (CBA) is the tool used to decide about whether a project should be undertaken or not.

MEGALECTURE

Cost Benefit Analysis of Highway Project

Private Cost	External Cost
The cost spent by the government for the highway construction including material used, cost of labor, the fuel used in road construction machines etc.	The harmful effects on the people living around the area like displacement of local community due to high way. The loss of wildlife (if any) due to highway construction.

MEGA LECTURE

Cost Benefit Analysis of Highway Project

Private Benefit	External Benefit
The revenue received by the government in the form of toll tax. Every time any commuter uses highway they need to pay toll tax which is revenue for the government. The reduction in travel time for commenters who use the highway.	The benefit received by the local community in terms of greater access to adjacent areas, more secure areas after the construction of highway due to highway police etc.

Implementation of Cost Benefit Analysis

1. After identification of all possible cost and benefits, as shown in the previous slide, the government will sum up Private Benefit and External Benefit to find the Social Benefit. Similarly, government will sum up Private Cost and External Cost to find the Social Cost.
2. If Social Benefit is greater than Social Cost the government will undertake the project and vice versa.

MEGALECTURE

Challenges using Cost Benefit Analysis

- Assigning Shadow Prices to costs and benefits for which market prices are not available. For instance, how can government accurately assign a value to the loss of wildlife due to highway construction etc. Similarly how can a value be assigned to the time saved by commenters due to use of highway.

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- Accurate estimation of value of non-marketed goods as mentioned above the crucial to successful implementation of CBA.

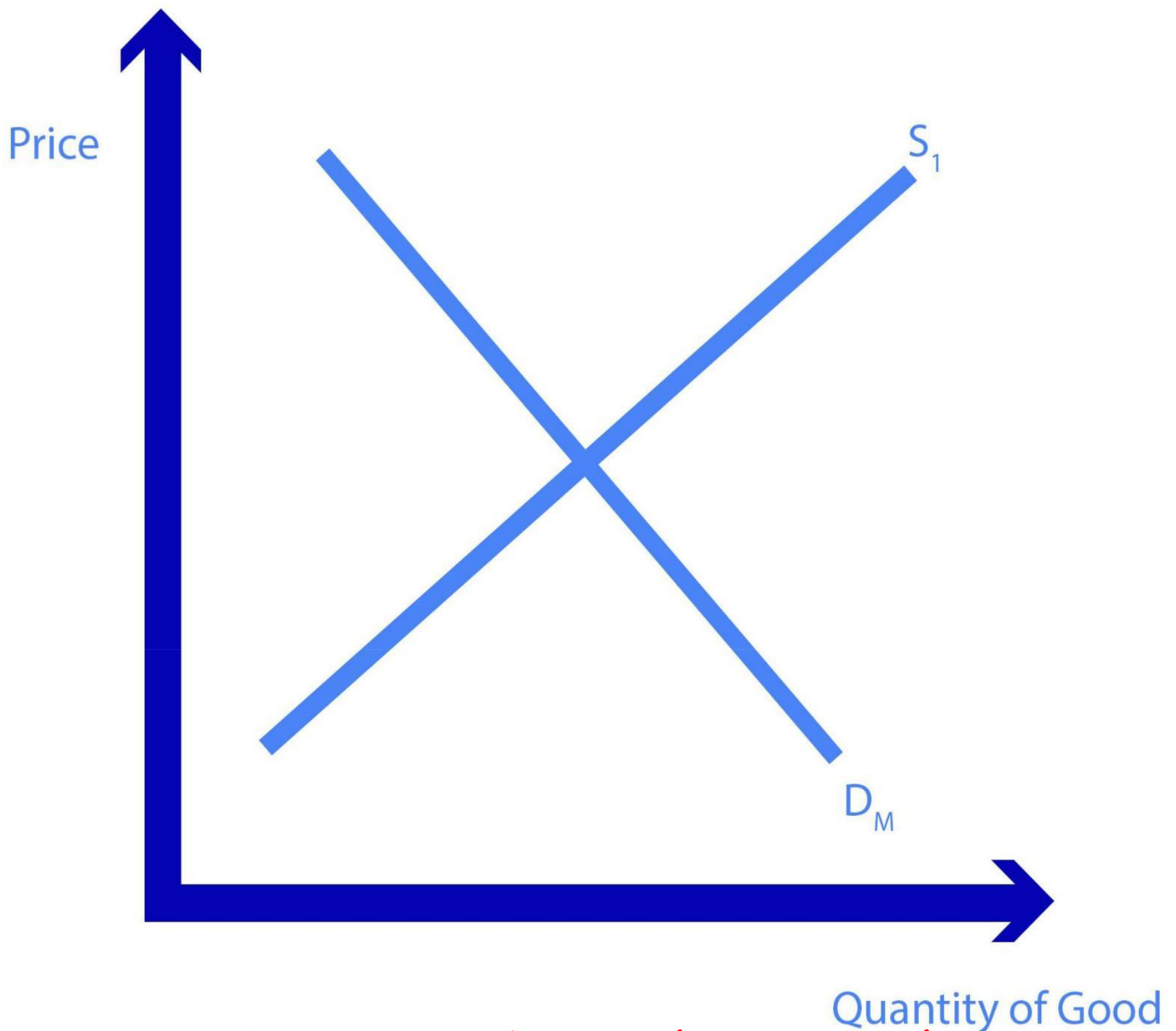
MEGA LECTURE

Merit Goods

- Products that are beneficial for the consumers but since consumers do not fully realize their benefits they under consume the product eg eating heathy food, exercising.

MEGALECTURE

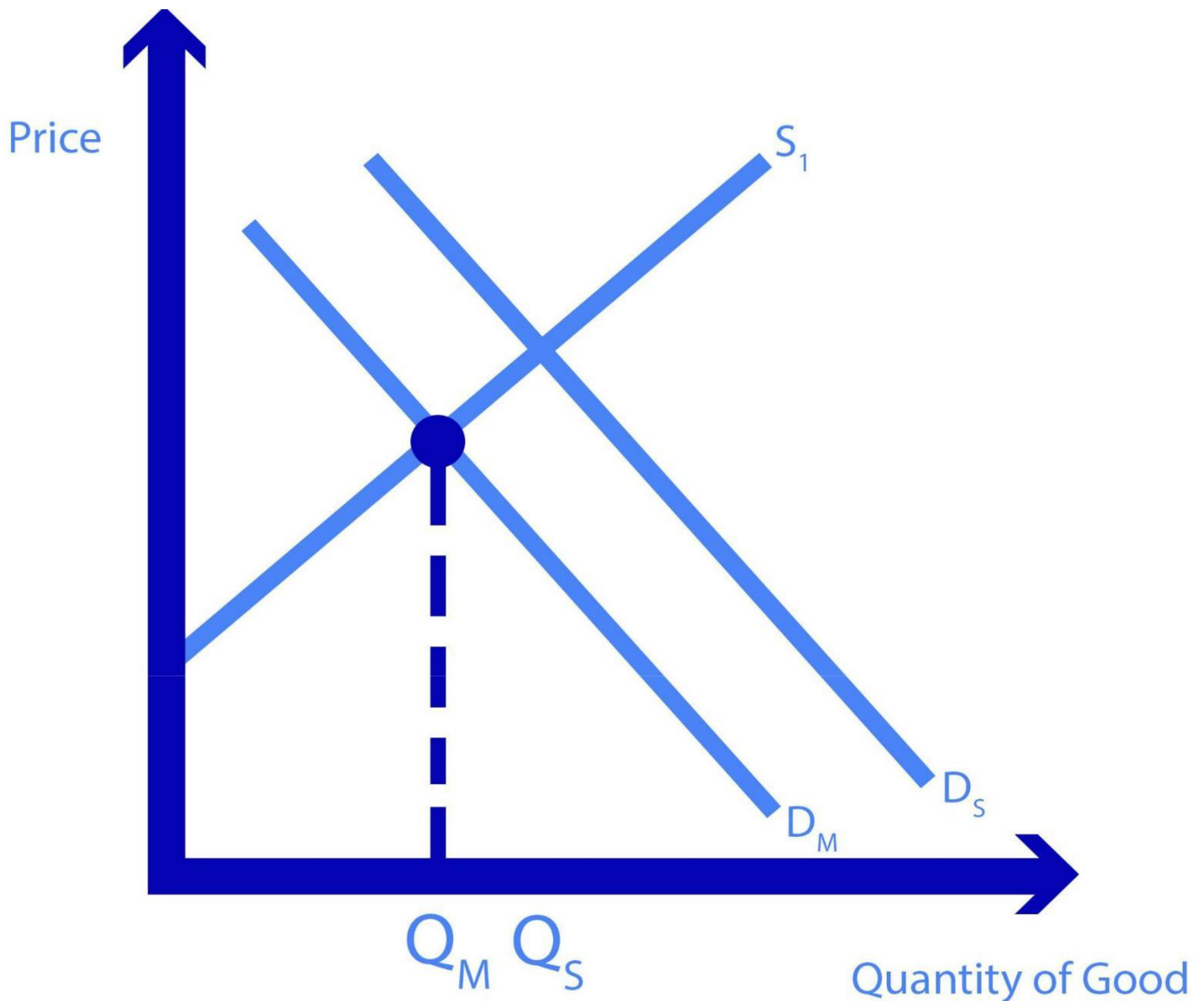
Merit Goods



DM is the market demand curve of a merit good like healthy eating.

S1 is the product supply curve.

Merit Goods

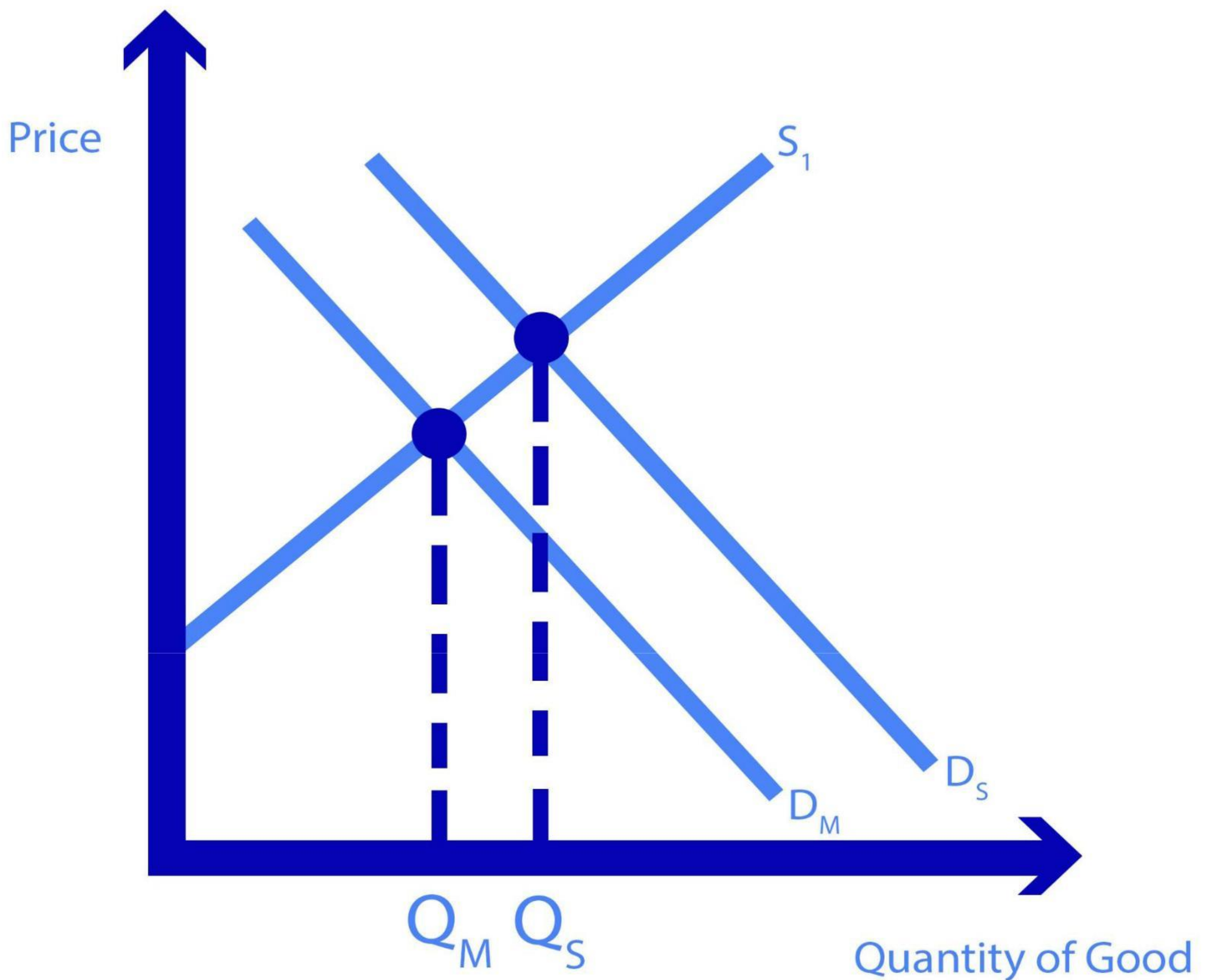


DM is the market demand curve of a merit good like healthy eating.

S1 is the product supply curve.

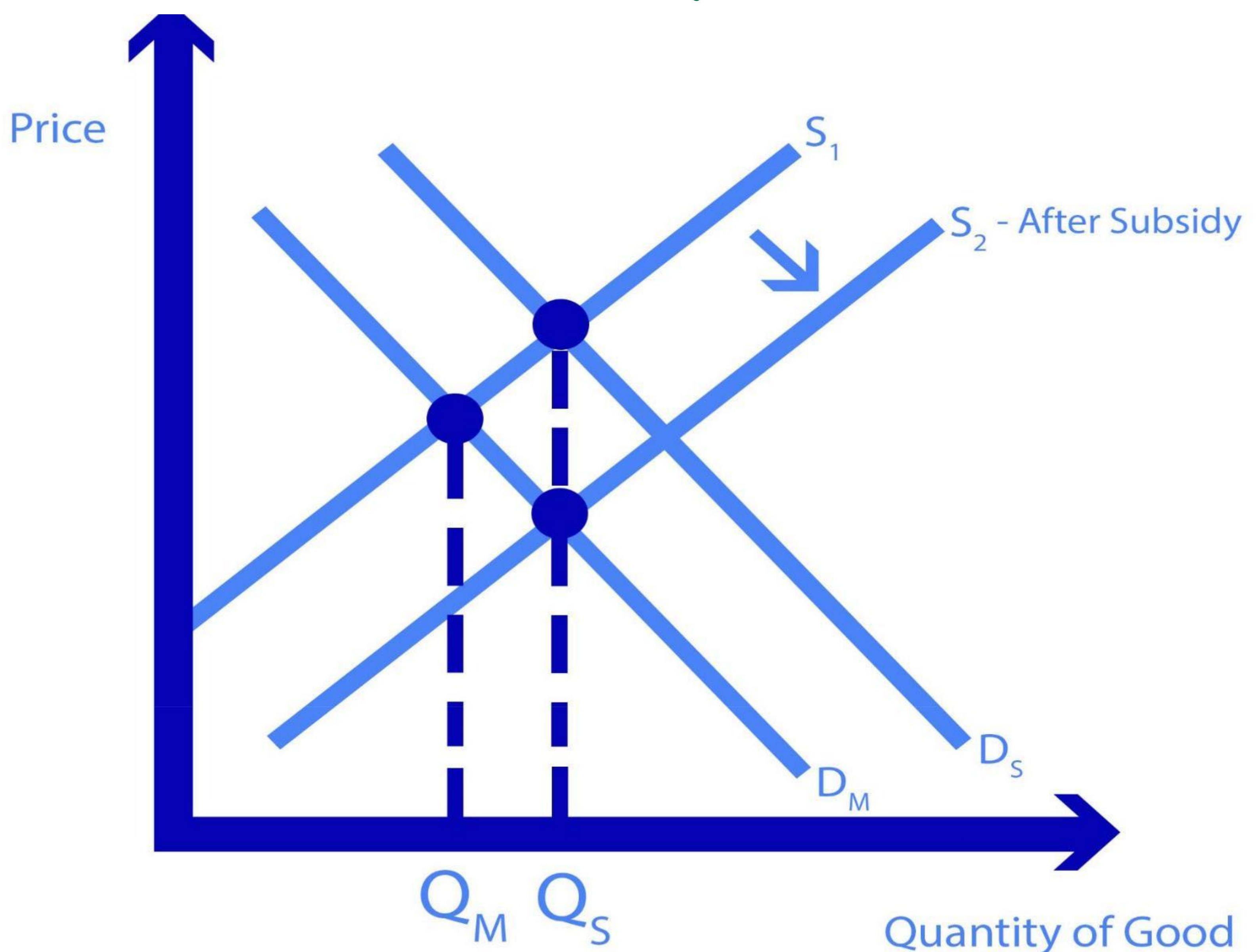
Where DM is equal to S1 that is where the market is consuming.

Merit Goods



DS is socially desirable demand for the product which is higher than market demand curve because consumers do not fully realize the benefits of health eating.

Merit Goods



Where S1 is equal to DS that shows socially desirable level of output.

MEGA

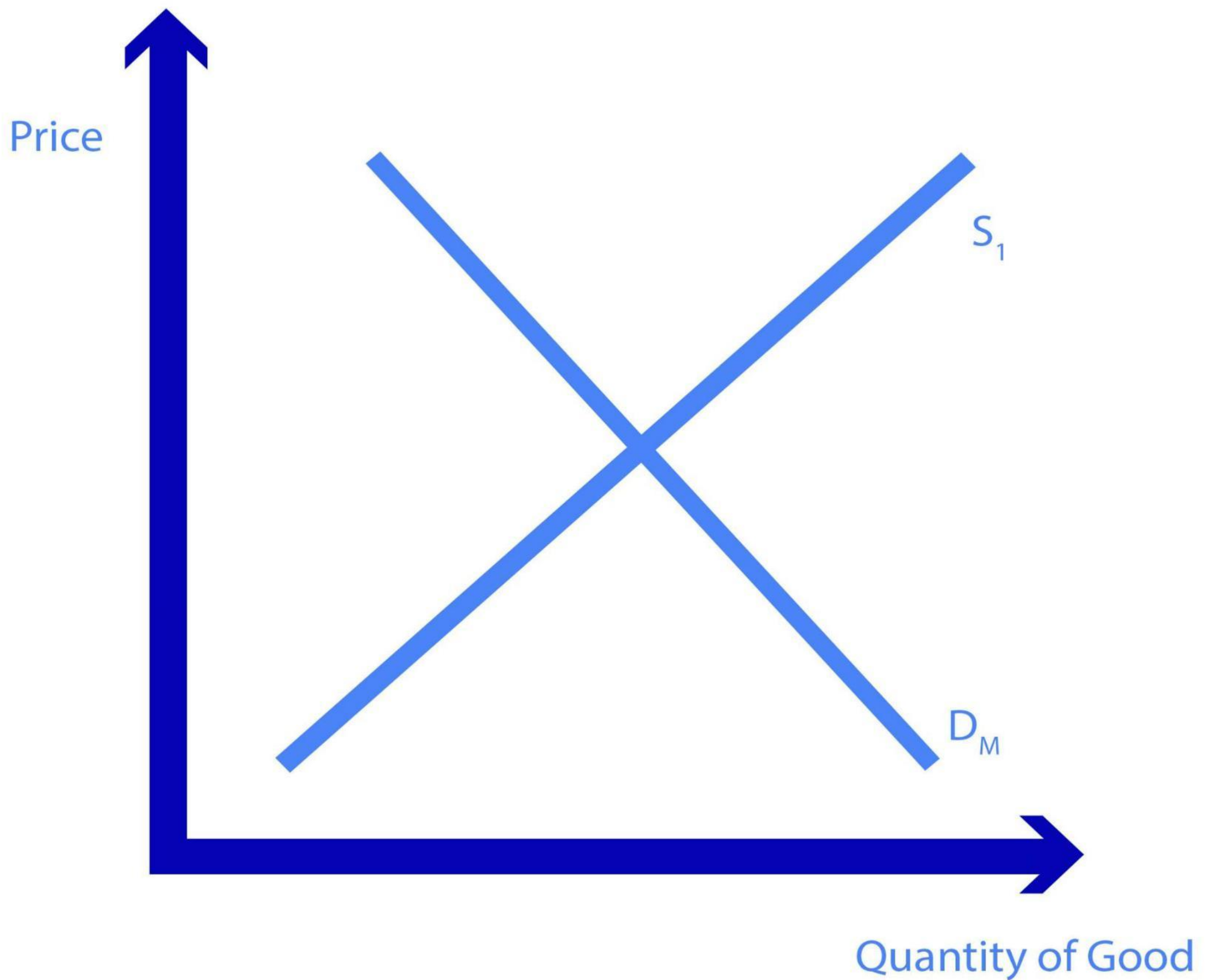
To encourage the consumption of health eating, government can provide subsidies which will shift the supply curve rightward from S1 to S2 and so will bring the consumption up from QM to QS.

Demerit Goods

- Demerit good is anything that is harmful for the consumer but since they do not fully realize the harmful effects they overconsume the product eg cigarettes, alcohol, fast driving, junk food.

MEGA LECTURE

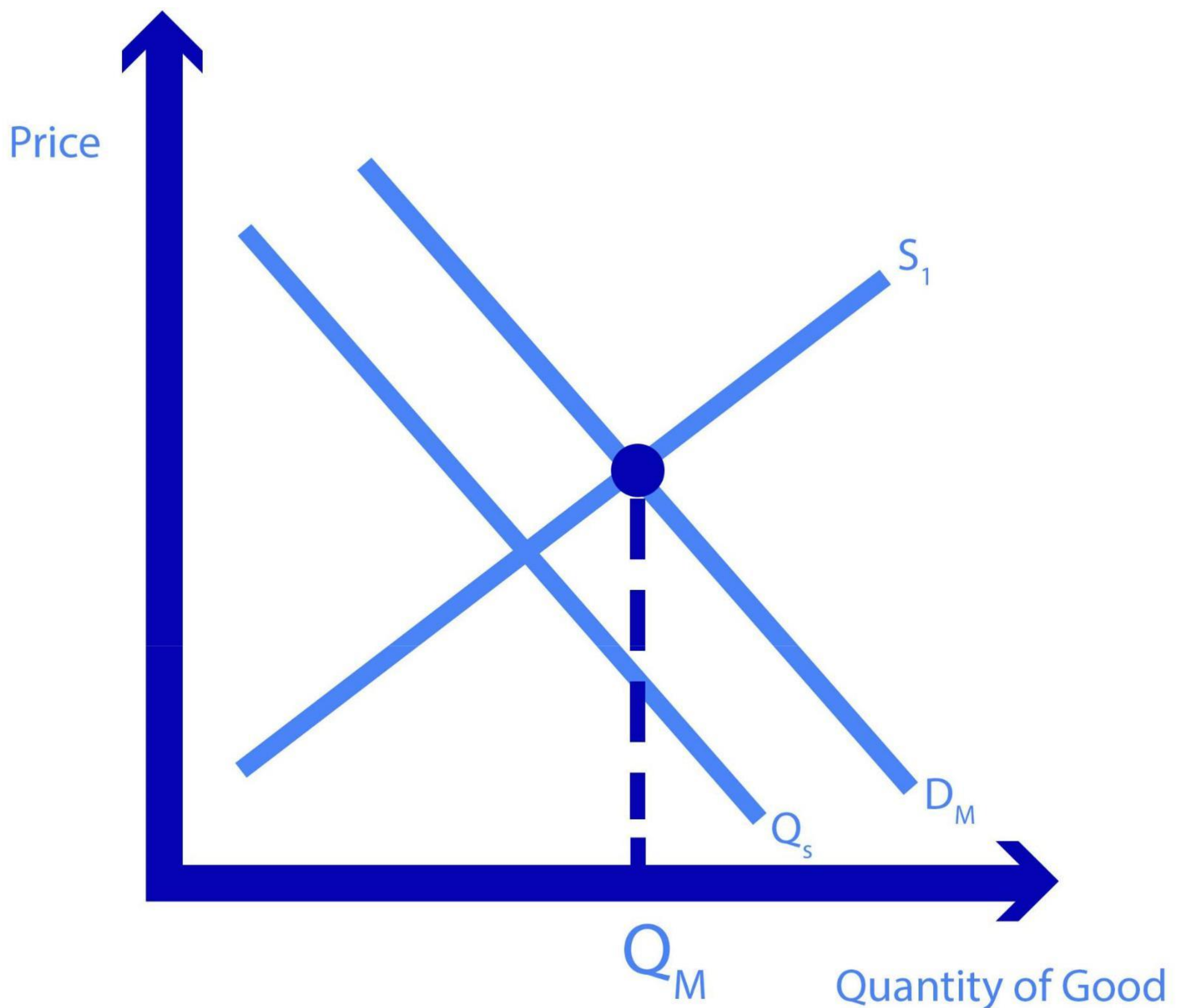
Demerit Goods



Where DM is equal to S1 it is where the market consume.

This quantity is labelled as QM.

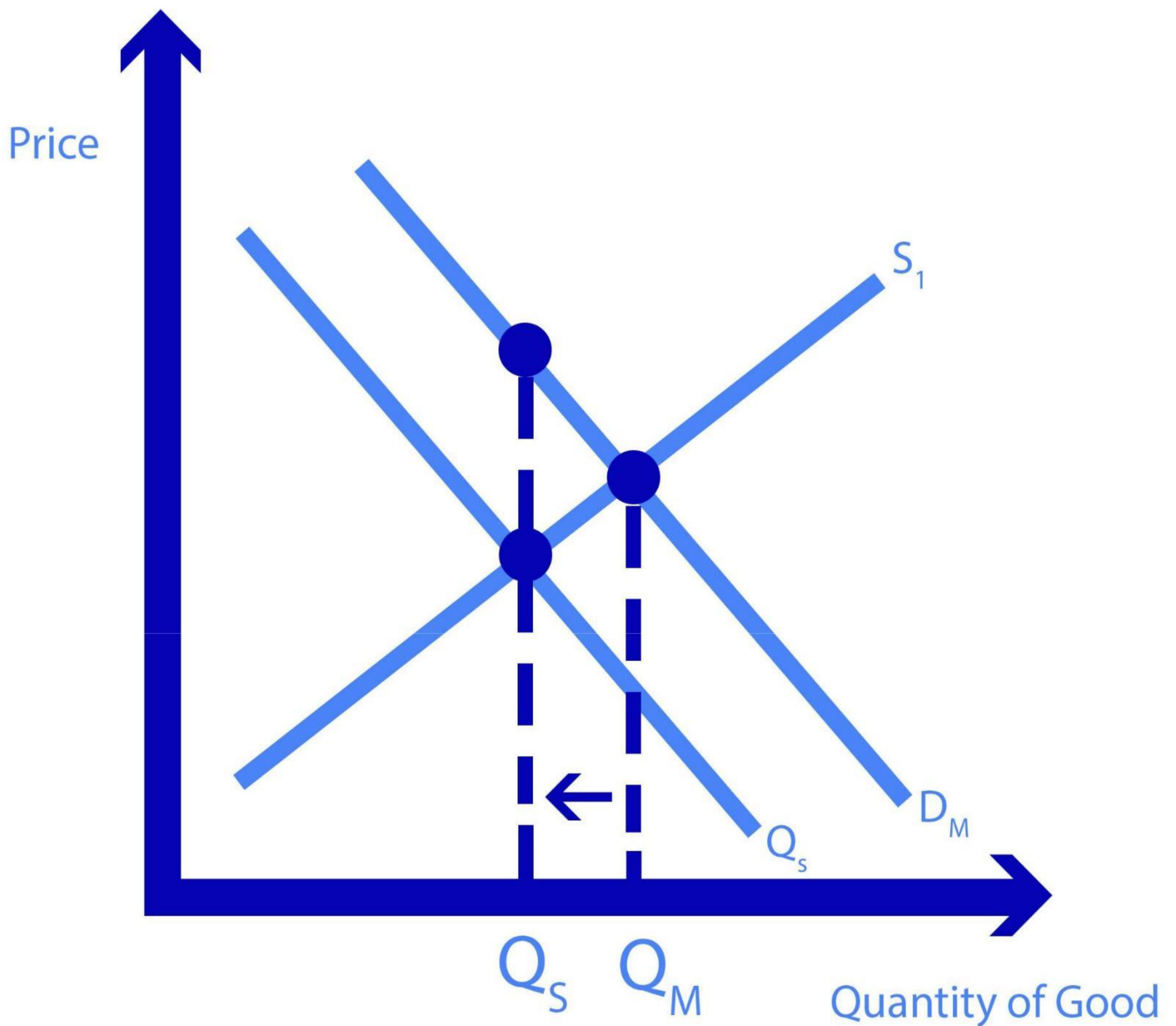
Demerit Goods



Where Market Demand curve which is labelled as DM intersects with supply curve which is labelled as S1 it is where the market consume.

This quantity is labelled as QM

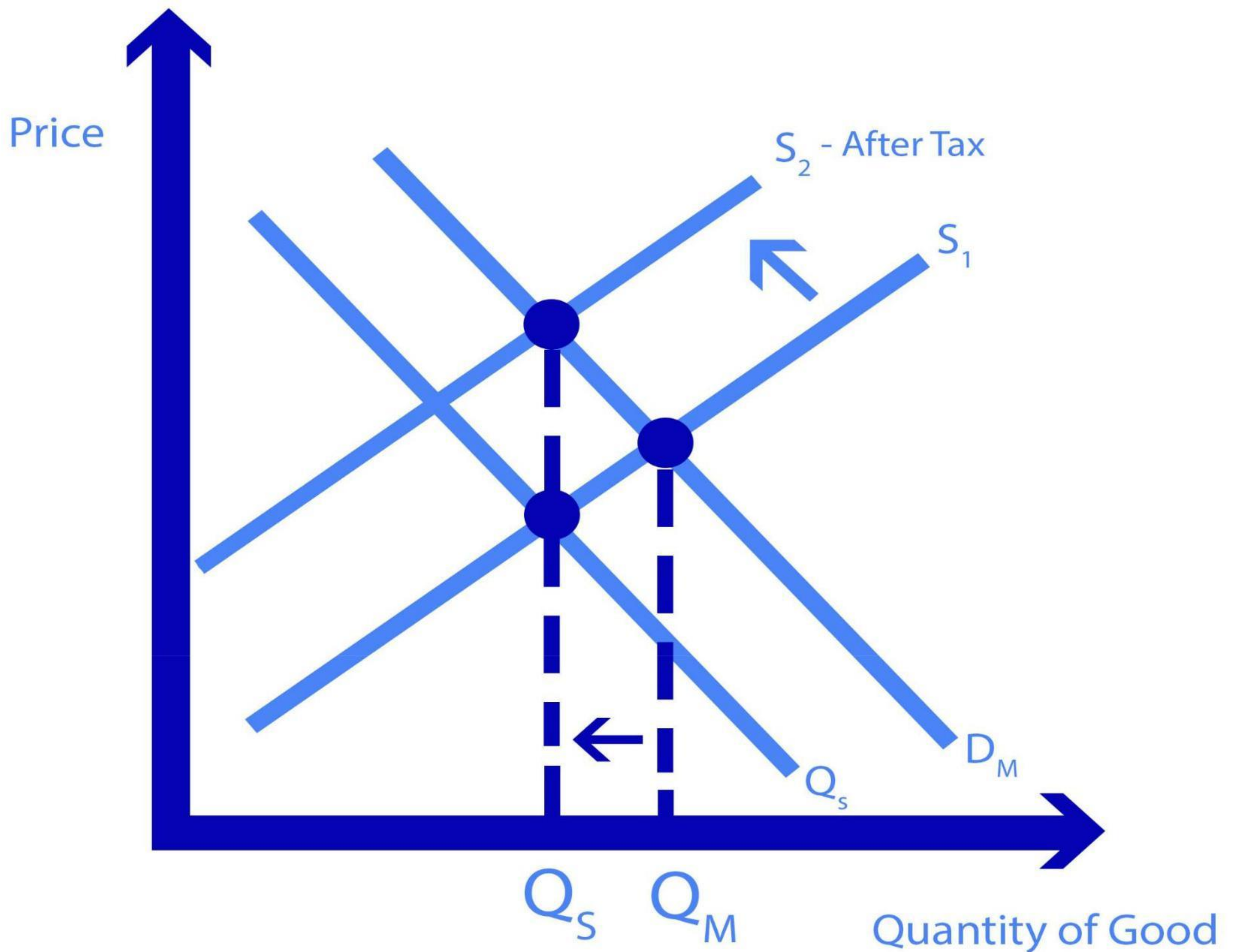
Demerit Goods



However being demerit good consumers do not fully realize the harmful effect of this product. Therefore consumers should have ideally consumed lower quantities of this product.

Hence Social Demand curve, QS, is lower than market demand curve, QM.

Demerit Goods



To stop over-consumption of demerit good government imposes indirect tax which makes the product expensive and so shifts the supply curve leftwards bringing consumption down from QM to QS.

MEC

Unequal Income Distribution

- When the distribution of income is quite unequal in a country, some people are able to afford everything (almost) while others are hardly able to meet basic necessities.

MEGALECTURE

How can government create more equal income distribution?

1. Use progressive or proportional taxation

2. Redistribute income through transfer payments

MEGA LECTURE

What is Progressive Taxation?

- Progressive taxation is higher the incomes, higher the tax rate. It is more of a burden on rich people.
- Proportional taxation is a fixed tax rate which is regardless of the amount of income earned. More of a burden on rich people.
- Regressive Taxation: it is an indirect tax that is imposed on consumption. Such taxes like GST (general sales tax) is more of a burden on poor rather than rich people.

MEGALECTURE

Direct Taxes versus Indirect Taxes

- Direct Tax is anything that is imposed on income, wealth or property.
- Indirect Tax is any tax imposed on consumption like GST (General Sales Tax), VAT (Value Added Tax).

MEGA LECTURE

- Direct Taxes are either progressive or proportional.
- Indirect Taxes are regressive.

Transfer Payments

- Transfer Payments are financial payments made by the government to poor or disadvantaged people. Eg

1. Unemployment Benefit: certain amount of financial compensation is paid to people who are unemployed.
2. National Income Support Program: it is financial support provided to poor families.
3. Child Support Program: financial support provided to families with small children
4. Relief Payments: any financial support provided during natural disasters, plane crash etc.

MEGALECTURE

Transfer Payments

5. **Providing public education and health care:** because not everyone can afford private schools and hospitals it is important that government support poor help through establishment of cheaper alternatives
of public schools and public hospitals.

MEGALECTURE

Information Asymmetry

- In certain markets, one group of market participants have more information compared to other market participant. This is known as Information Asymmetry.

MEGALECTURE

Adverse Selection

- For instance second-hand product sellers will be more informed about the defects of their products compared to the product buyers.
- Whenever information failure exists free markets will not be able to allocate resources efficiently.

MEGALECTURE

Adverse Selection

- Ideally better condition second-hand cars should be sold for higher price compared to poor quality cars.
- But since there is no way for the buyer to differentiate between the two different types of products, a typical buyer will be willing to pay only average price for any typical second-hand car.

MEGALECTURE

Adverse Selection

- This means that better quality car seller will receive lesser compensation for their products which will obviously discourage them to sell their products. On the other hand, poor quality car owners will receive higher compensation than what they deserve
- Limited information will prevent people to make best possible transactions which is known as Adverse Selection and is cause of Market Failure.

MEGALECTURE

Moral Hazard

- When individuals' actions change following an economic transaction.
- After getting their products insured, people might adopt careless attitude towards the safety of their insured products for example a car or their health.

MEGALECTURE

Moral Hazard

- Careless attitude regarding the safety of insured products significantly increases the chances of these products to get damaged or stolen etc.
- For instance, owner of insured car might not install a tracker, a product that protects car from being stolen, in his car for he considers it to be a useless expenditure.

MEGA LECTURE

Moral Hazard

- So a person who has purchased health insurance might be less conscious of his/her eating habits and this unhealthy lifestyle will be a cause of concern for insurance companies. Hence insurance firms, keeping this in mind will charge high insurance premiums which will discourage low risk consumers to buy insurance.

MEGA LECTURE

Moral Hazard

- Hence due to high insurance premiums only high risk people will buy insurance making it more likely for insurance companies to suffer loses which is a cause of market failure.

MEGA LECTURE

Public Goods

No provision of Public Goods by private sector is another cause of Market Failure.

Why do private firms do not provide public goods?

- Since we know that public goods are non-excludable and non-rivalry, it is nearly impossible for private sector to charge their customers for provision of public goods. How can a private firm charge people for using a road or street lights etc?

MEGALECTURE

Direct or Indirect Provision of Public goods by Public Sector

- Either governments directly produce public goods through Public Corporations like WAPDA – Water and Power Development Authority – producing electricity in Pakistan.

- Or else governments finance the provision of public goods while they are being produced by the private sector. For instance, government of Pakistan (GOP) outsourcing the project of highway construction to a private firm.

MEGA LECTURE

Direct or Indirect Provision of Public goods by Public Sector

The private firm receives a fixed compensation for the project as agreed with the government at the start of the project and later the toll revenue generated from the highway goes to the government.

MEGA LECTURE

Comparison between Direct and Indirect Provision of Public Goods

- When governments do not have the technical expertise to produce certain goods / services it outsources it to private firms. Specialized private firms are more likely to produce the product at relatively lower costs which is definitely more Economically Efficient.

MEGALECTURE

Maximum Price

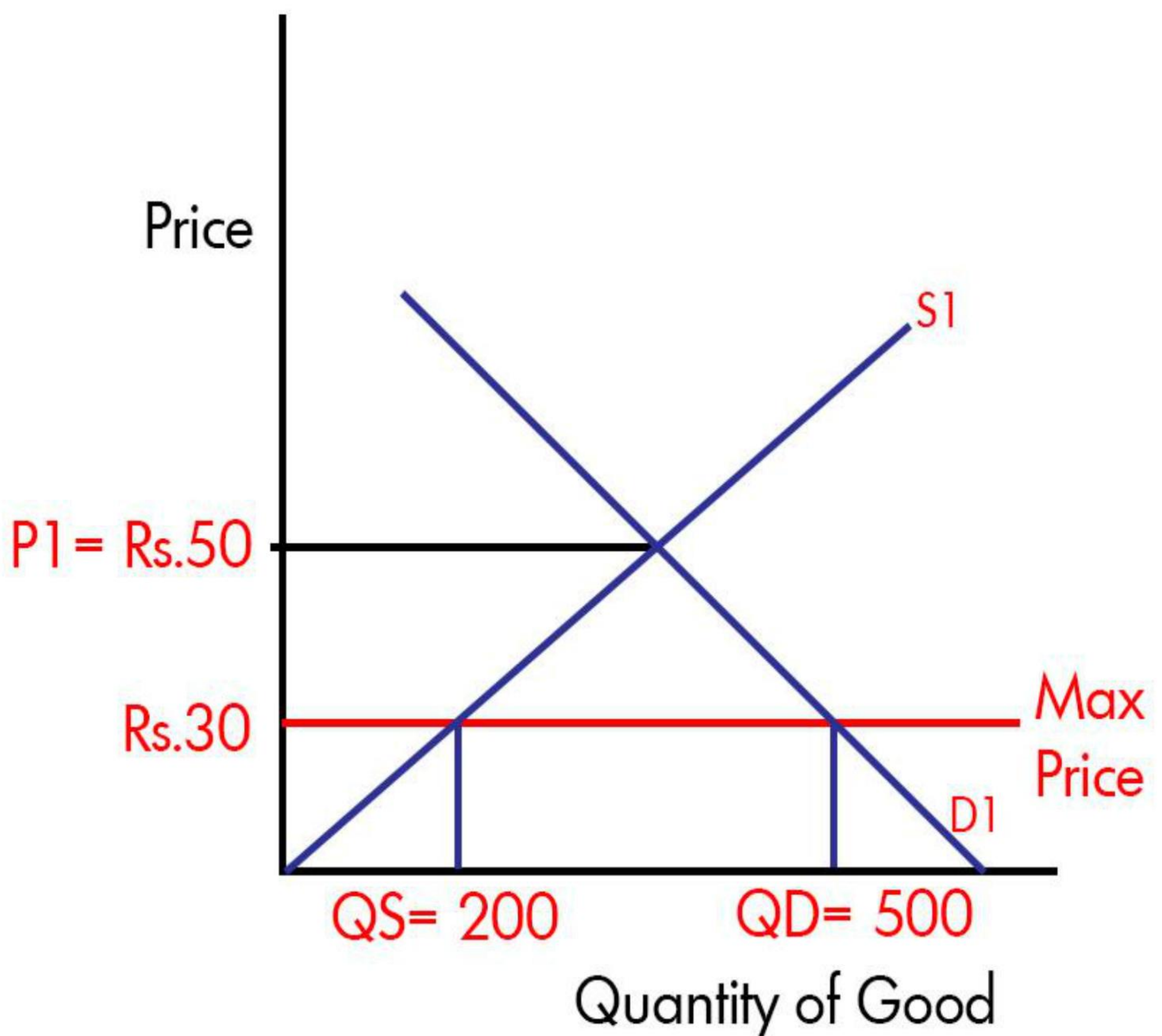
- Maximum Prices are set to benefit the consumers.
- Maximum prices are set lower than Equilibrium Market Prices to make a certain product more affordable for consumers.
- Every time the government imposes maximum price there will be shortage in the market.

MEGALECTURE

Maximum Price

Maxium Price

After imposition of maximum prices the quantity demanded is 500 and quantity supplied is 200 units so there is a shortage of 30 units.



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Academy

Maximum Price

How can the government resolve the problem of shortage?

1. Either import the product from other countries

2. Use the buffer stock –any stock of the goods that has been saved from previous years.

MEGALECTURE

Minimum Price

- Minimum Price are set to benefit the producers.
- Minimum Prices are set higher than Equilibrium Market Price to offer producers higher prices than Market Prices that they were previously receiving.
- To maintain the minimum price the government needs to purchase the surplus.

MEGA LECTURE

Minimum Price

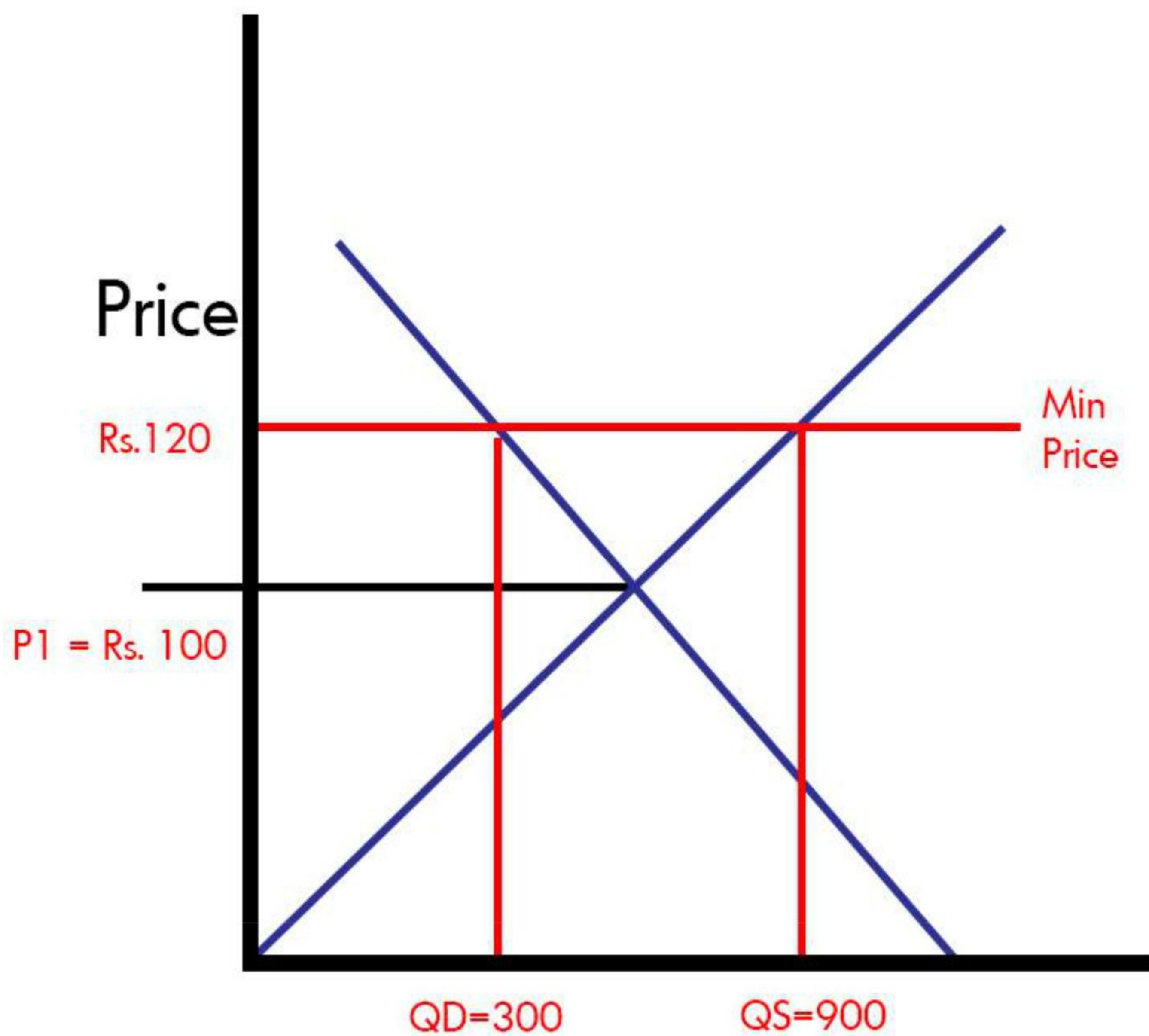
- Every time there is a minimum price imposed there will be a surplus which needs to be bought or else the price will fall back to the original equilibrium price level.

MEGALECTURE

Minimum Price

Minimum Price

The quantity supplied at the minimum price is 900 units and quantity demanded at this price is 300 units. So there is a surplus of 600 units.



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Nationalization and Privatization

MEGA LECTURE

AS Economics

What is Nationalization?

- Nationalization is the process of state (government) purchasing / taking-over of private businesses and private resources.
- Nationalization is the characteristic of Command economies through which government / state expects to increase its economic influence. Proponents of nationalization claim that macroeconomic objectives of higher growth and improved development will be better achieved when state takes control of "strategic" industries and resources.

MEGALECTURE

Nationalization?

- "Strategic" industries as defined by state are important industries / businesses that are essential for the country's prosperity and sovereignty (independence) and so should be controlled and managed by state which is more likely than private sector to make decisions based on social welfare / societal needs.

MEGA LECTURE

Nationalization?

- Pakistan also experienced substantial nationalization during the reign of Zulfiqar Ali Bhutto when many private businesses were taken-over by state.

MEGA LECTURE

How is Nationalization financed by state?

- Unlike private sector where economic transactions have to be mutually beneficial; state being powerful institution can take-over individuals' private resources and businesses without fairly compensating them – the price they would have received in the Free Market.

MEGALECTURE

What circumstances facilitate Nationalization?

- Because nationalization is expected to adversely affect political parties' popularity hence it is quite unlikely that democratic states take any such radical step.

MEGALECTURE

- However monarchies / dictatorships are not threatened by taking politically unpopular decisions therefore they are more likely to engage in such activities.

MEGA LECTURE

Pros of Nationalization	Cons of Nationalization
Nationalized industries are more likely than private businesses to achieve fair distribution of goods / services as they are not driven by profit motives.	The process of nationalization puts most if not all private businesses at the risk of being taken-over and so can significantly reduce the incentives for private businesses to innovate.

Pros of Nationalization	Cons of Nationalization
This more equal distribution of goods can significantly reduce the disparity between living standards of rich and poor segments of the society.	Standardized products produced by public corporations will negatively affect the choice that is available to consumers in the case of private businesses due to more competition.

Pros of Nationalization	Cons of Nationalization
Public corporations are likely to charge more reasonable prices and not to take advantage of consumers in case of price inelastic demand because they do not aim for excessive profit maximization.	Government owned monopolies can be very inefficient with the use of resources knowing that government will bail them out in case of financial difficulty.

Pros of Nationalization	Cons of Nationalization
Less-privileged including low income citizens can benefit from their improved affordability of educational and healthcare services.	The chances of new local and especially of foreign investments reduce significantly knowing that the chances of government taking-over a private business is huge and so this can negatively affect an economy's future growth and development.

Pros of Nationalization	Cons of Nationalization
No or limited cases of market failure like over-production of demerit goods and negative externalities and under-production of merit goods and positive externalities because government prioritize societal welfare above profit motives unlike private businesses.	Nationalization can result in social unrest due to citizens protesting against government decision to forcefully take over their businesses which they would have established through quite of hard work and effort.

Privatization

- Privatization being opposite of nationalization is when former state owned enterprises are sold to private investors to reduce government intervention in any economy.

- Unlike nationalization process that is often abrupt and unplanned, privatization in most cases is systematic and new owners fairly compensate state for purchase of public corporations.

MEGA LECTURE

Pros and Cons of Privatization

- Privatization being complete opposite of nationalization is beneficial because of the cons of nationalization and its limitations are the merits of nationalization.

- So just reverse the table presented in previous slides to get the answer.

MEGA LECTURE