Asymmetric information

Asymmetric information

- Economic theory suggests that markets are efficient in allocating resources when there is **accurate and unbiased information (perfect information)** for making rational and sensible economic decisions.
- When a market experiences imperfect information, it can lead to market inefficiencies and **market failure**.

Asymmetric information refers to situations where buyers and sellers do not have **equal access** to information.

→ Result in allocative inefficiency.

1. **Adverse selection**
2. **Moral hazard**

Adverse selection

Adverse selection refers to situations where one party in a transaction has more information about the **quality of the product** being sold than the other party.

- Before the transaction occurs

1. Information is available to sellers but not to buyers
2. Information is available to buyers but not to sellers

Info. Available to sellers not to buyers

Sellers have information about the quality of a good/service that they do not make available to consumers.

- In **second-hand car market**: Sellers have information about the car's quality that they are unlikely to reveal to potential buyers if the car has a defect.
- In **food market**: Sellers could sell unsafe food to consumers, possibly leading to illness and even death.
- In **medication market**: Sellers sell unsafe medications that could be ineffective or dangerous.

Classic example: Adverse Selection in second-hand Cars

- Originated from ‘The Market for Lemons: quality uncertainty and the market mechanism,1970’ paper by economist George Akerlof.

- The **seller** has either a quality product, a ‘peach’, or a faulty product, a ‘lemon’.
- Because of asymmetric information, the potential **buyer** may hesitate to offer more price, fearing he may get a ‘lemon’. Thus, to avoid paying more, the potential buyer would not want to pay higher than the average price. This average price lies in between the cost of a ‘peach’ and a ‘lemon’.
- For the **seller of ‘peach’,** this price is not enough → not sell
- For the **seller of ‘lemon’,** this price is higher than their ‘lemon’, → sell

→ From a second-hand car perspective, used cars differ in quality, so the worst ones get sold first. As a result, consumer expectations fall alongside the expected prices. So consumers expect low quality and cheaper goods.

→ However, at the same time, the sellers of ‘peaches’, or high quality second hand cars are pushed out of the market, leaving only ‘lemons’ behind.

→**“Bad money drives out good”**

Info. Available to sellers not to buyers

- **Risks**:
  - **Underallocation of resources**: Consumer aware of the potential danger → lower demand → less production and low sales.
  - **Overallocation of resources**: consumer not aware of the potential danger →more than society optimum quantity been sold

Possible solutions - Government responses (AO3)

1. Regulation – government pass laws and regulations that ensure quality standards and safety features that must be maintained by producers and sellers of goods and services.

E.G. Regulation & legislation of food safety, Pharmaceutical management, etc.

Problems：

A. Time consuming, bureaucratic procedures and slow down economic activities.

B. Large Opportunity costs

Possible solutions - Government responses (AO3)

2. Provision of information - government supply information to consumers or force producers to provide information, thus protecting consumers in their purchasing decisions.

- E.g. nutritional labelling, crime rates by neighborhoods, the quality of medical care by different providers, etc.

- **Problems**:

  A. If government is the information provider:
    - Difficulties involving the collection and dissemination of all the necessary information to consumers
    - The accuracy of the information
    - Opportunity cost in providing the information.

  B. If private seller/producer is the information provider:
    - Questions about information accuracy and completeness (legal, medical, financial, etc.)
    - impossible to eliminate the information asymmetry.

Possible solutions - Government responses (AO3)

3. Licensure

- Lot of jobs need licensure: Doctors, teachers, lawyers, accountant, electricians, etc.

- **Problems:**
  - It may work to limit the supply of people in a profession, raising the price of their services and increasing their incomes at the expense of consumers who must pay higher prices.

Possible solutions- Private responses (AO3)

1. **Screening:** used by party with limited information → **buyer**
   - The Buyers try to get more information by screening the product or the producer or seller of the product.
   - E.g., Search on internet, ask friends, ask legal service provider, etc.
   - **Problems**: It may help providing consumers with some missing information, but it cannot provide systematic and complete information to match the information available on the seller's side.

Possible solutions- Private responses (AO3)

2. Signaling: used by party with more information → seller

- Sellers try to use signaling to convince the buyers that the product being sold is of good quality.
- E.g. warranties, exhibiting cars in fancy show rooms, exhibit kitchen area to show sanitary and reliable food quality, making service records available for used cars, etc.
- **Problems**: It's unlikely to provide full information to buyers, and it may even provide inaccurate or misleading information by sellers eager to promote and sell their products.

Info. Is available to buyers not to sellers

- **Buyer has information not available to the seller.**
- E.g. In health insurance, the buyer of insurance know more about the state of their health than sellers of insurance. Those with health problems are unlikely to tell the full truth to the insurance company.
- Risks:
  - The insurance company reduces the supply of insurance to protect itself against having to provide insurance coverage to very high risks, or people who are more likely to become ill. → Underallocation of resources to health insurance services.
  - High insurance costs for insurance buyers.

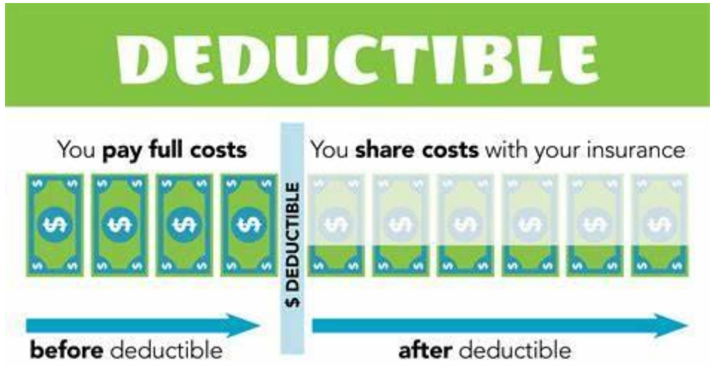
Possible solutions
- Government response (AO3)

- Provide **direct provision** of health care services at low or zero prices to an entire population. (financed by tax revenue)

- **Limitations**: financial burden on government.

Possible solutions
- Private response (AO3)

- **Screening**: Insurance company offer insurance with: the lower the cost of the insurance, the higher the deductible; vice versa.
  - People believe they have a low risk of getting sick can buy a low-cost policy with a higher deductible
  - People believe they have high level of health risk can buy a higher-cost policy with a lower deductible.
  - The choice of high or low deductible → indirectly providing information about their state of health to the seller of insurance.



- **Limitations:**
  - Low-income earners choose lower-cost policies because these are more affordable, regardless of the state of their health. → discrimination against those on low incomes
  - Insurance company usually refuse to insure people above a certain age, as elderly people generally have a higher chance of becoming ill. → elder people who are more likely to become ill, are left with little or no insurance coverage. → discrimination to low elder people.

Moral hazard

Moral hazard refers to situations where one party takes a risk, but **does not face the full costs** of these risks because the full costs of the risks are borne by the other party.

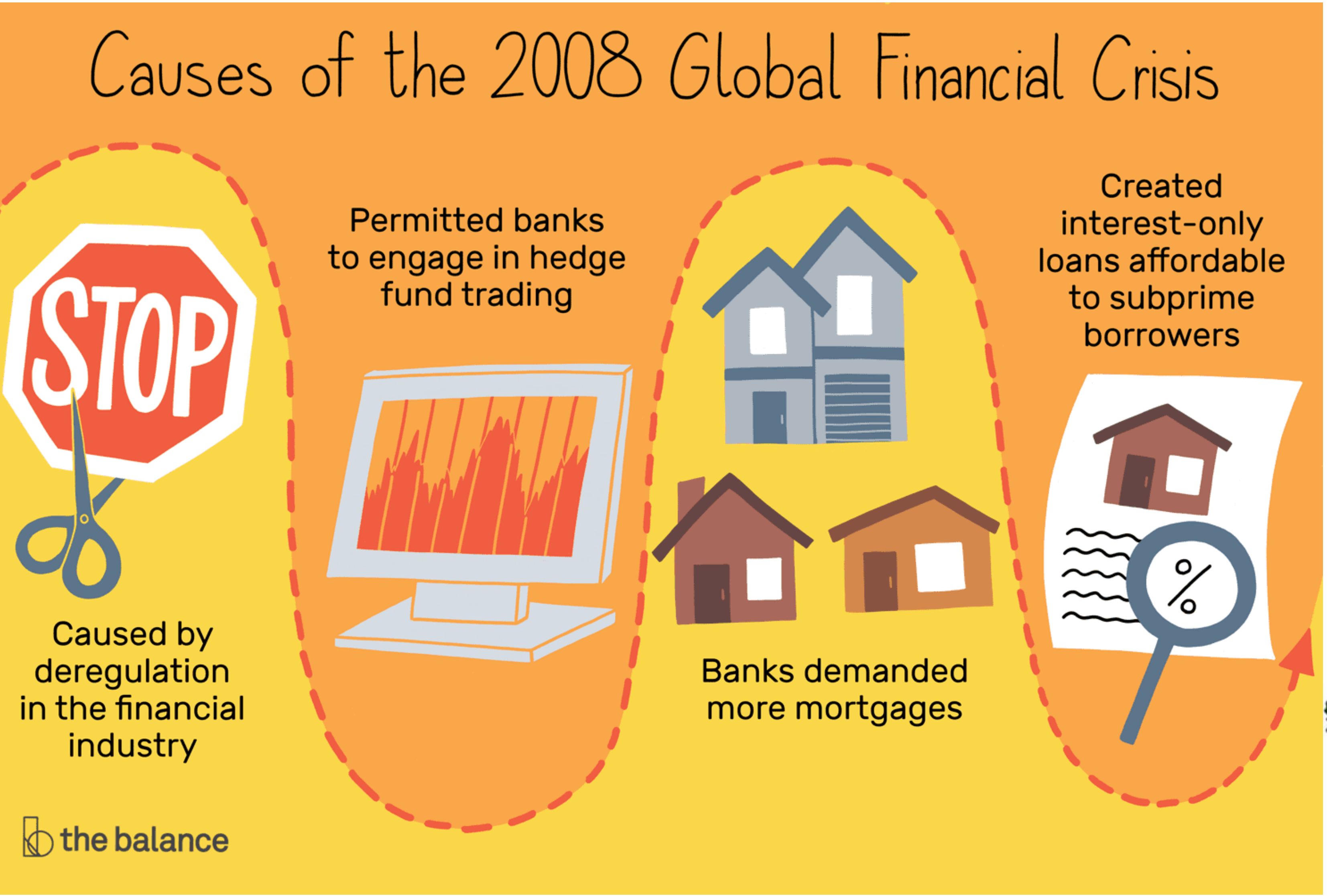
- <u>**After**</u> the transaction occurs
- It does not equal to unethical/immoral behavior

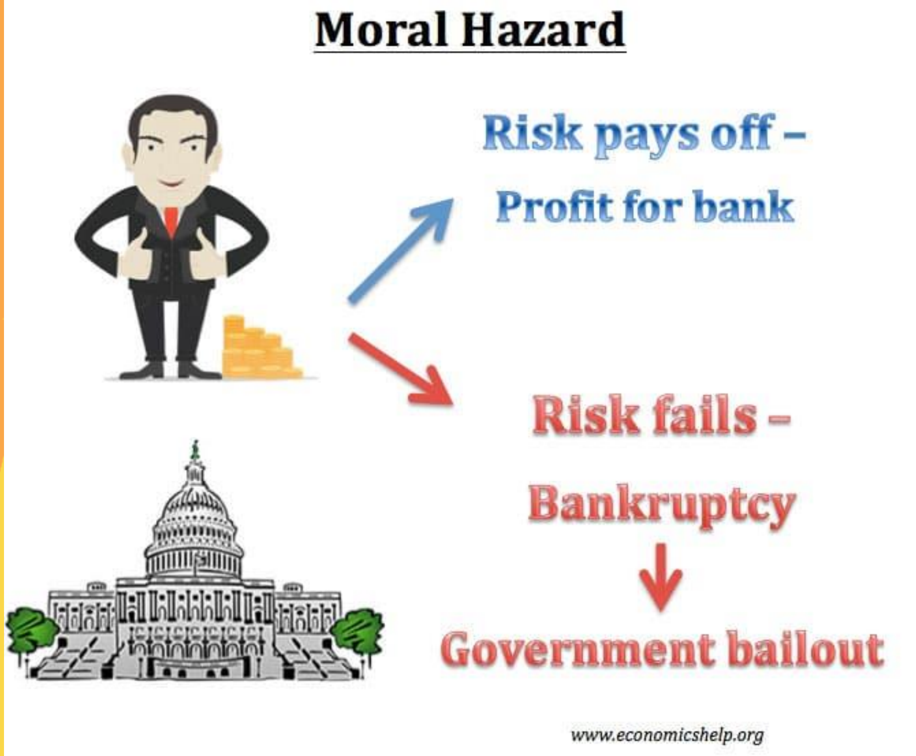
Examples of moral hazard

- **"don't worry, it's insured"**
- Buyer of insurance changes his/her behavior **after** obtaining insurance, so that the outcome works against the interests of the seller of insurance.
  - car theft insurance
  - medical malpractice insurance
  - Unemployment insurance

→ It will lead to **underallocate resources** to the production of insurance services.

The 2008 financial crisis





Possible solutions (AO3)

- **In insurance industry:**
  - Insurance company solve the problem by making the buyer pay for part of the cost of damages through deductible.
  - **Limitation**: it has different effects depending on the income level of insurance buyers.

- **In financial area:**
  - Government regulation of financial institutions to prevent highly risky behavior.
  - **Limitation**: issues regarding the type and degrees of government regulations that are required if these are to be effective.