

The Principal-Agent Problem

- [Key Takeaways](#)
- [Example: Real Estate Agents and Home Sellers](#)
- [Further Reading](#)

Key Takeaways

The principal-agent problem is an important topic in both economics and organizational theory.

Two Parties:

- **Principal:** The party that delegates a task or decision-making authority.
- **Agent:** The party tasked with executing on behalf of the principal.

Misaligned Interests:

- While the principal and the agent might have some overlapping objectives, their interests aren't fully aligned. This can lead to conflicts of interest.

Information Asymmetry:

- One of the central problems is that the agent often has more information about the task at hand or their own actions and intentions than the principal. This imbalance can give the agent an advantage and can lead to adverse selection (bad choices made by the principal due to lack of information) and moral hazard (risky behavior by the agent because they bear less of the consequences).

Risk Preferences:

- The principal and agent might have different attitudes toward risk. For example, an employee (agent) might prefer a stable salary, whereas a business owner (principal) might be more willing to tie compensation to performance.

Monitoring and Enforcement Costs:

- Even if the principal wants to ensure that the agent acts in the principal's best interest, monitoring the agent's actions can be costly and difficult. Even with monitoring, it might be challenging to determine if an agent is genuinely

acting in the best interest of the principal.

Residual Loss:

- Despite attempts to align interests (e.g., through contracts or incentive schemes), there might still be some inefficiency or loss due to the divergence of interests between the principal and agent.

Contract Design:

- How a contract is designed can influence the agent's actions. For instance, a fixed salary might not give an employee much incentive to exert extra effort, while performance-based pay might. However, performance-based pay might also incentivize the wrong kind of behaviors if not properly structured.

Time Horizon Differences:

- The principal and agent might have different time horizons in mind. An agent might focus on short-term gains, potentially at the expense of the principal's long-term interests.

Effort Unobservability:

It can be hard for the principal to observe the effort the agent is putting into a task, leading the agent to potentially shirk responsibilities.

Example: Real Estate Agents and Home Sellers

The principal-agent problem (or agency dilemma) arises when one person (the "agent") is allowed to make decisions on behalf of another person (the "principal"), but their interests may not necessarily align.

Scenario: Imagine you want to sell your house, and you hire a real estate agent to represent you in the sale.

Principal: You, the homeowner.

Agent: Real estate agent.

Interests:

- **Your interest** (as the principal) is to sell your house for the highest price possible.
- **The real estate agent's interest** (as the agent) might be to sell the house as quickly as possible.

Problem: Suppose your house could be sold for \$300,000 if you wait for a couple of months, or \$280,000 if sold within a week. Selling for the higher price would net you an additional \$20,000 (less a small increase in the agent's commission).

However, from the agent's perspective, waiting might only increase their commission by a small amount, say \$500 (if we assume a 2.5% commission rate). They might prefer to make a quick sale, get the commission earlier, and move on to other clients. Hence, the agent might not be as motivated to wait for a higher offer, whereas you, as the homeowner, might prefer to wait for the potential of an extra \$20,000.

Solution: To mitigate the principal-agent problem, contracts can be designed to better align the interests of the principal and agent. For instance, a homeowner could offer a bonus to the agent if the house sells above a certain price threshold, or the commission structure could be progressive based on the sale price.

Further Reading

Greenstone, M., He, G., Jia, R., & Liu, T. (2022). Can technology solve the principal-agent problem? Evidence from China's war on air pollution. *American Economic Review: Insights*, 4(1), 54-70.

<https://www.aeaweb.org/articles?id=10.1257/aeri.20200373>