

Nobel Prize in Economics 2020

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In News

The Nobel Prize 2020 in Economic Sciences was awarded to **Paul R. Milgrom and Robert B. Wilson for improvements to auction theory and inventions of new auction formats**. They have also used their insights to **design new auction formats for goods and services that are difficult to sell in a traditional way**, such as radio frequencies.

More About the Discovery

- The Economic Science Laureates have **not just clarified how auctions work and why bidders behave in a certain way, but used their theoretical discoveries to invent entirely new auction formats** for the sale of goods and services.
- The Royal Swedish Academy of Sciences noted that the discoveries by Milgrom, 72, and Wilson, 83, have **benefitted sellers, buyers and taxpayers around the world**.
- New auction formats have been used for **radio spectra, fishing quotas, aircraft landing slots and emissions allowances**.
- The economists invented new formats for auctioning many interrelated objects on behalf of a **seller motivated by doing good for society rather than simply achieving the highest price possible**.
- In 1994, US authorities first used one of their formats to sell bands of radio spectrum. Doing so helped ensure that taxpayers were benefiting from the sale of radio frequencies that were owned by the government but of enormous value to mobile network operators.
- Robert Wilson **showed why rational bidders tend to place bids below their own best estimate of the common value**:

they are worried about the **winner's curse** – that is, about paying too much and losing out.

- Paul Milgrom formulated a more **general theory of auctions that not only allows common values, but also private values** that vary from bidder to bidder.
- The outcome of an auction (or procurement) depends on three factors . the first is the **auction's rules, or format**. Are the bids open or closed? How many times can participants bid in the auction? What price does the winner pay – their own bid or the second-highest bid? . the second factor relates to the **auctioned object**. Does it have a **different value for each bidder**, or do they value the object in the same way? . the third factor concerns **uncertainty**. What **information do different bidders have** about the object's value?
- Using auction theory, it is possible to explain how these three **factors govern the bidders' strategic behaviour and thus the auction's outcome**. The theory can also show how to design an auction to create as much value as possible.
- The prize for economics is officially known as the **Sveriges Riksbank Prize in Economic Sciences**. It was established by Sweden's central bank and has been awarded since 1969 in memory of industrialist Alfred Nobel.