

Hedging with options

Option types

Option types

- ▶ Options give the purchaser the **right** to buy or sell the underlying asset

Option types

- ▶ Options give the purchaser the right (**but not the obligation**) to buy or sell the underlying asset

Option types

- ▶ Options give the purchaser the right (but not the obligation) to buy or sell the underlying asset **in the future**

Option types

- ▶ Options give the purchaser the right (but not the obligation) to buy or sell the underlying asset in the future at a **given price**

Option types

- ▶ Options give the purchaser the right (but not the obligation) to buy or sell the underlying asset in the future at a given price (**strike price**)

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- ▶ **European options** give the right to exercise the option at maturity only

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- ▶ If at maturity the underlying asset is worth less than the strike price, the option will not be exercised
- ▶ Exercising the option would result in **buying** the asset at a price **above its value**

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European call option payments at maturity

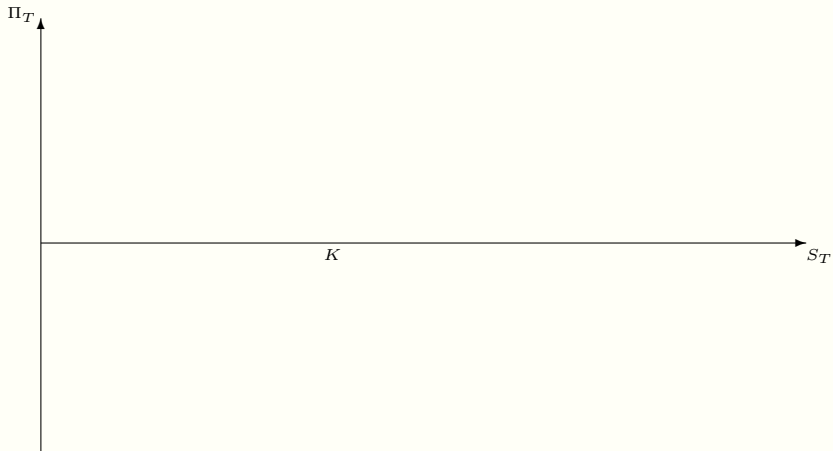
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Call option payoffs

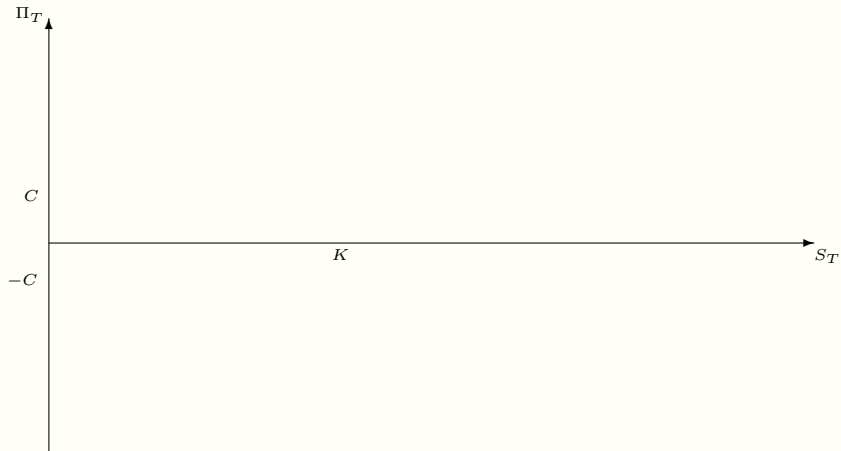
Call option payoffs



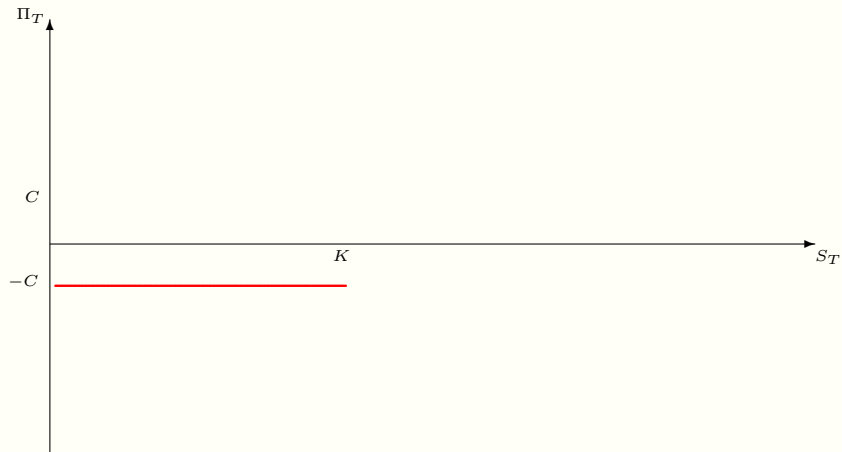
Call option payoffs



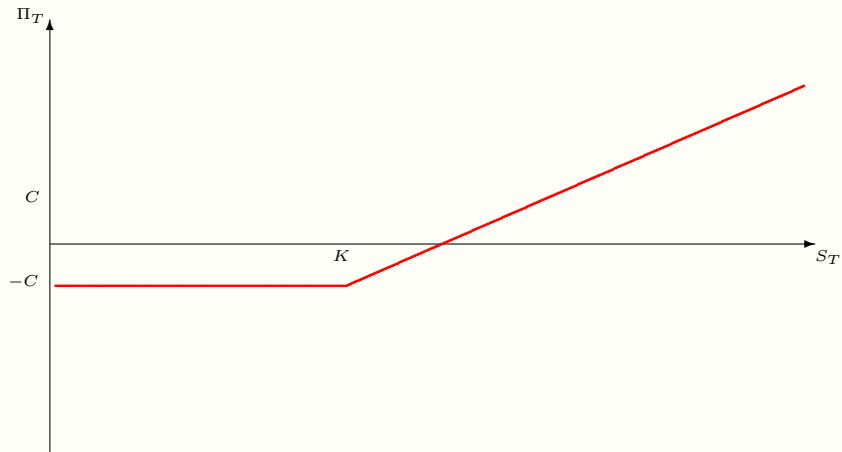
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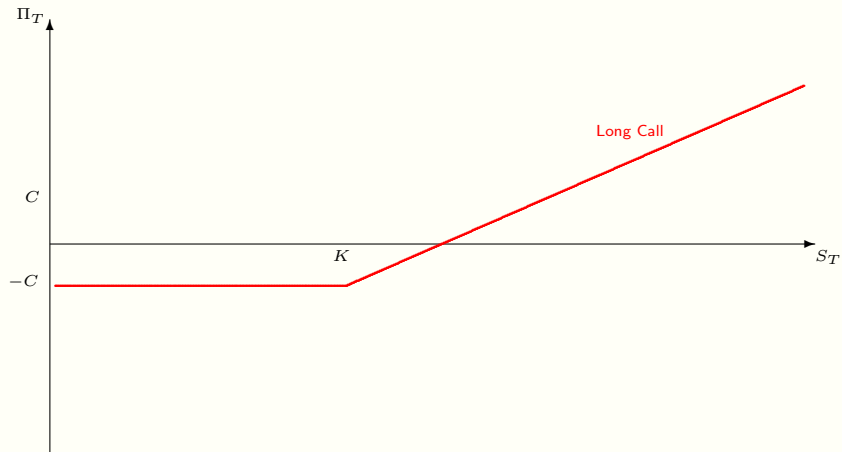
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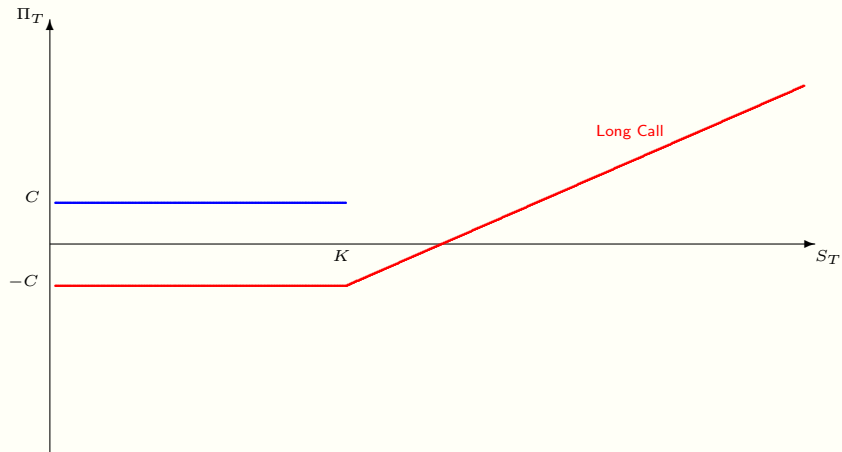
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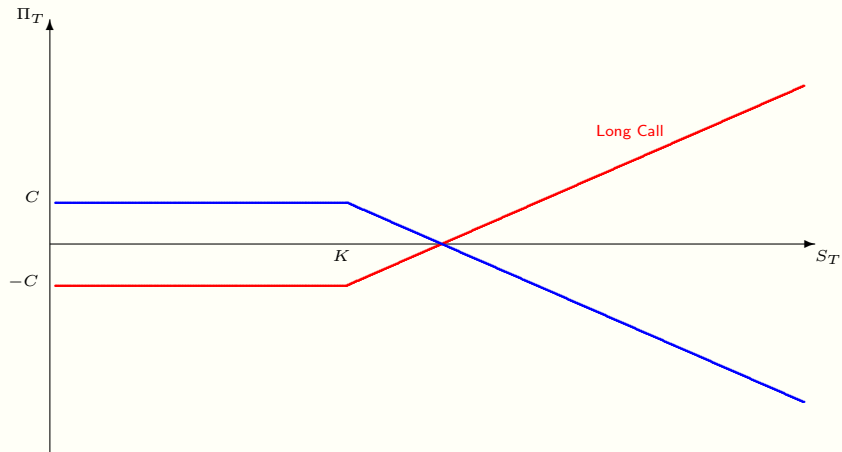
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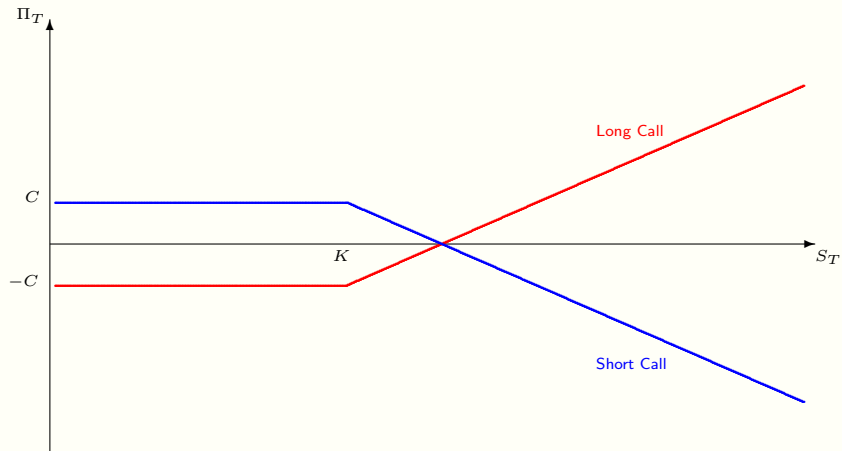
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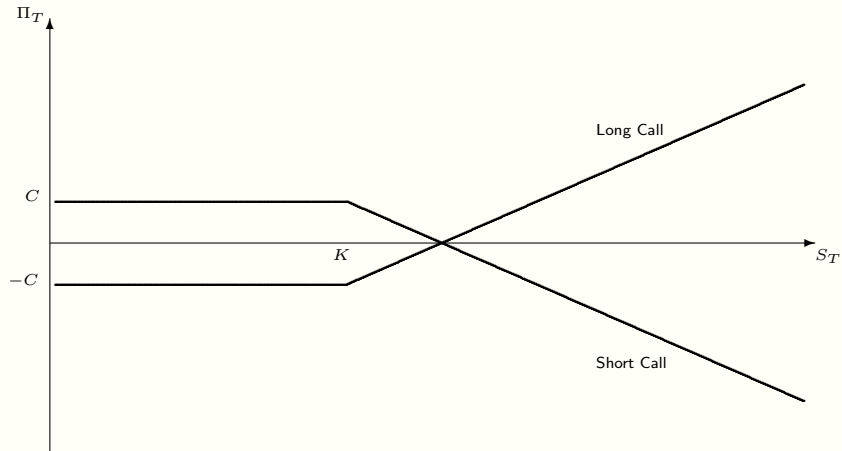
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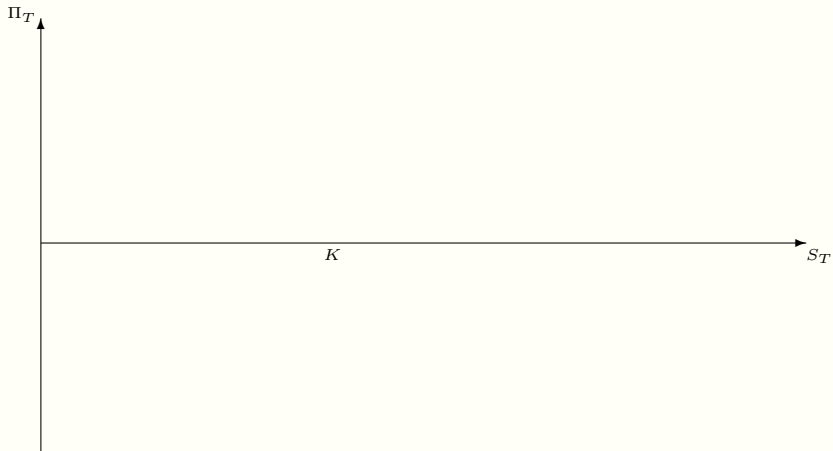
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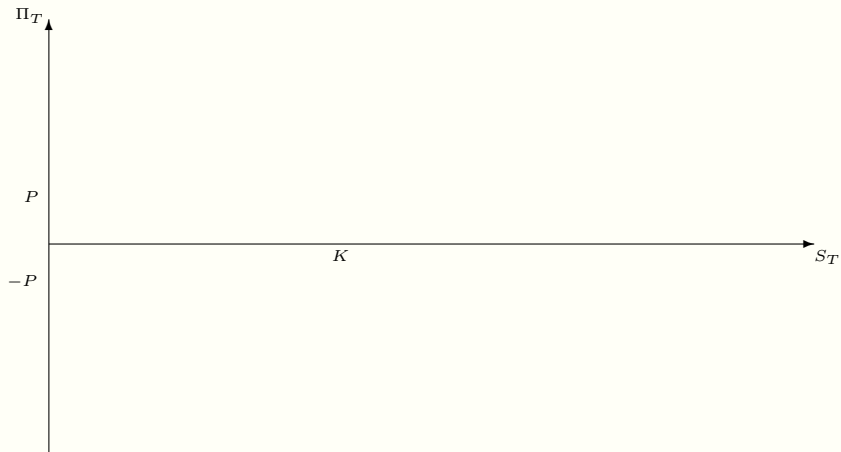
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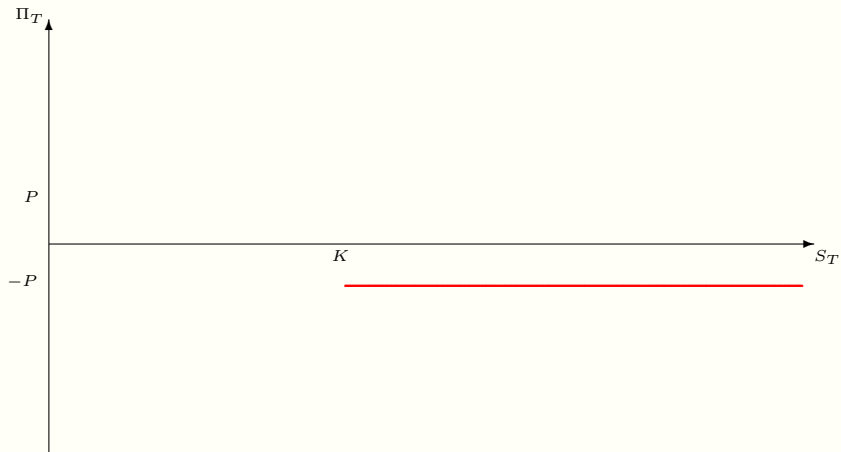
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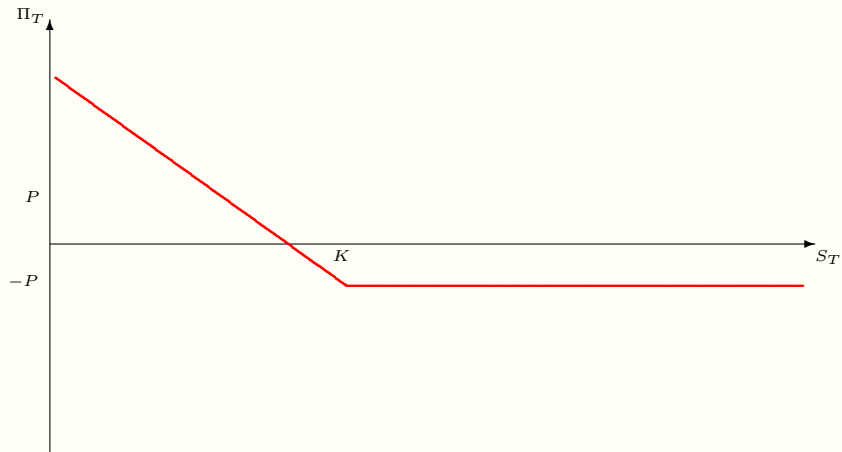
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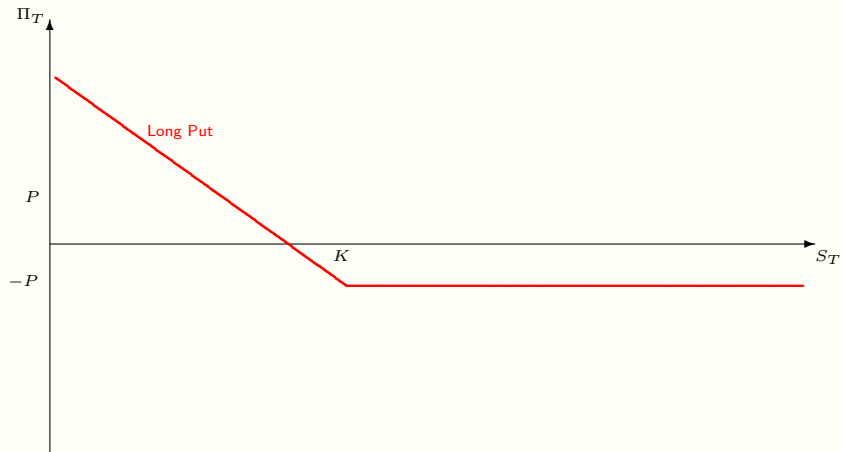
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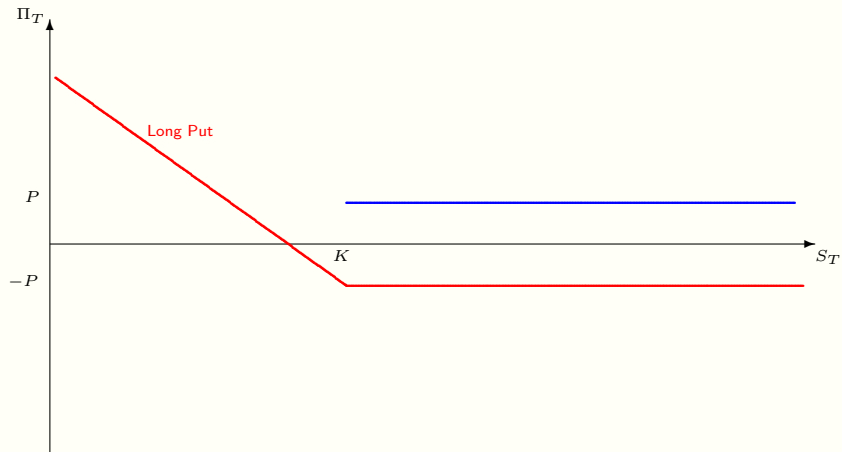
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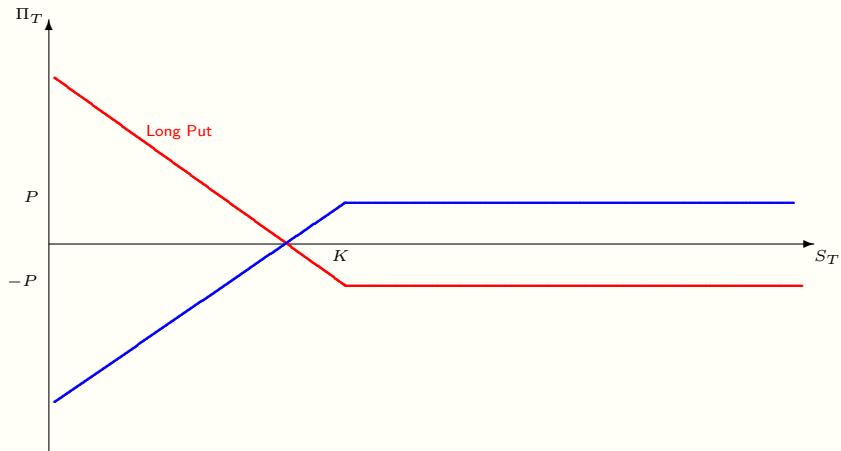
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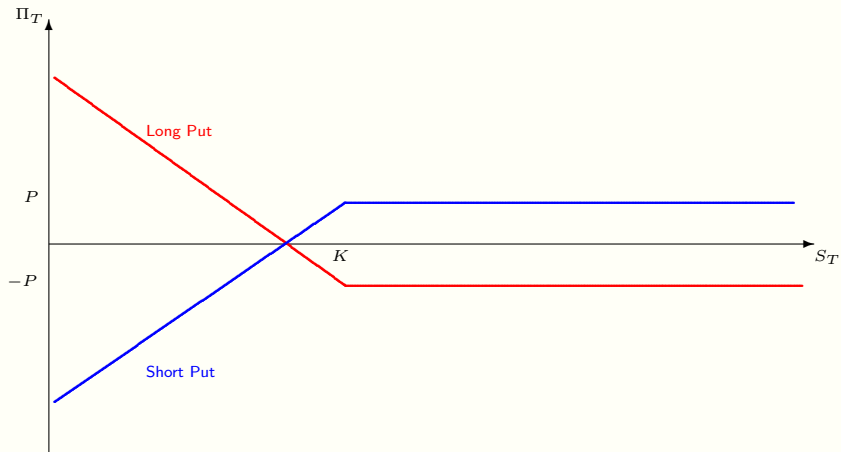
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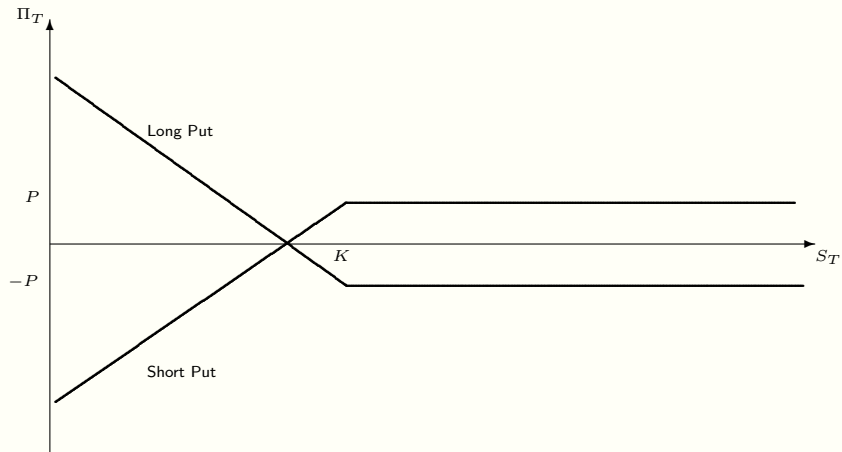
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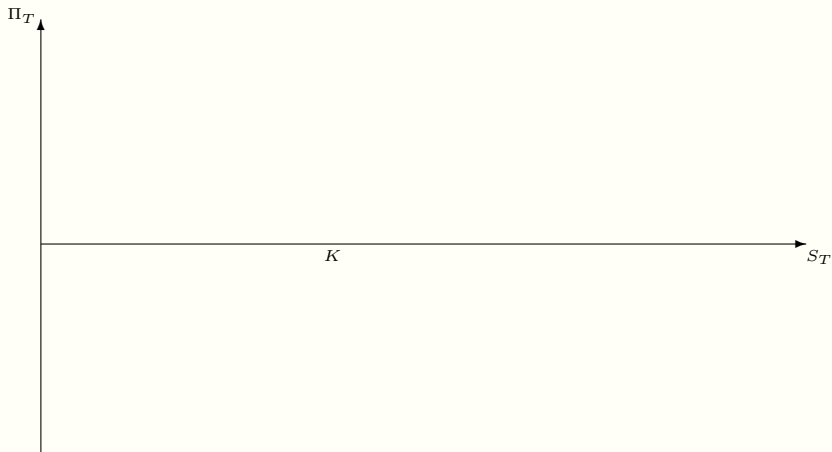
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Hedging a long position in the underlying asset

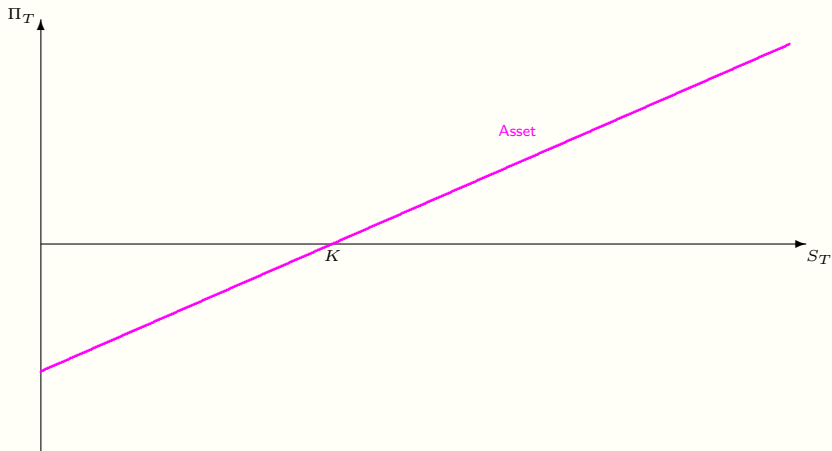
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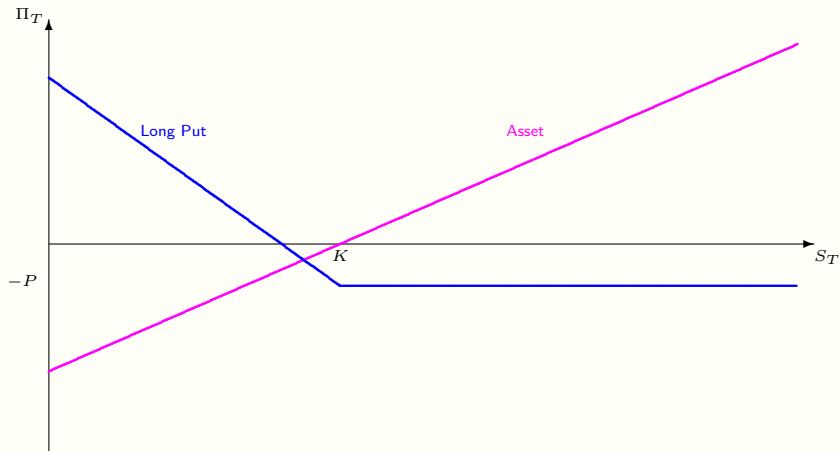
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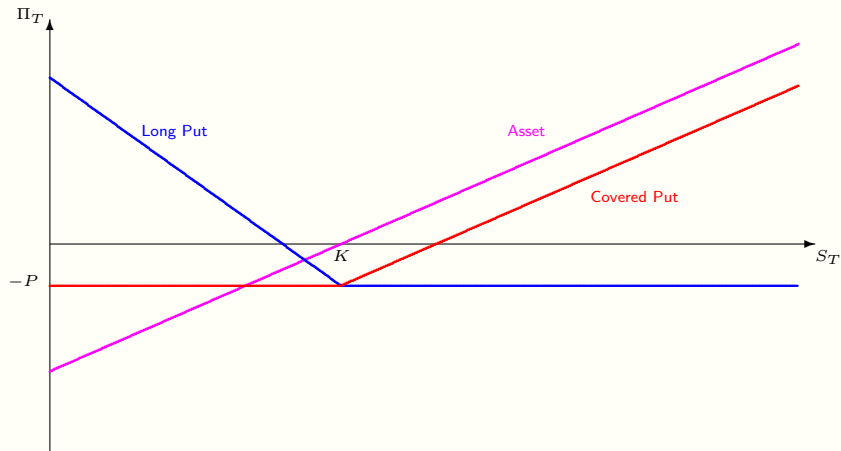
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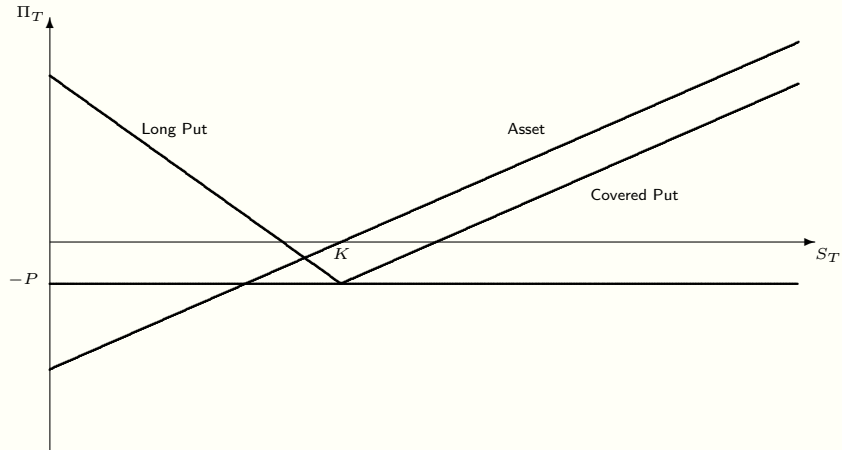
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Hedging a long position in the underlying asset



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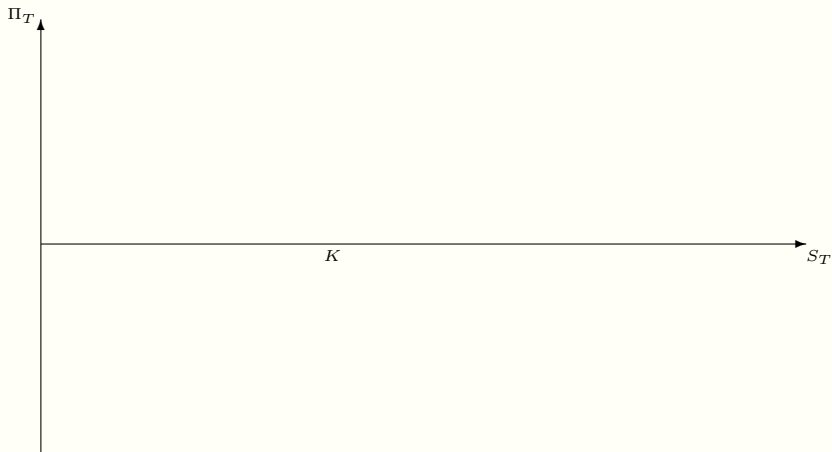


Hedging a short position in the underlying asset

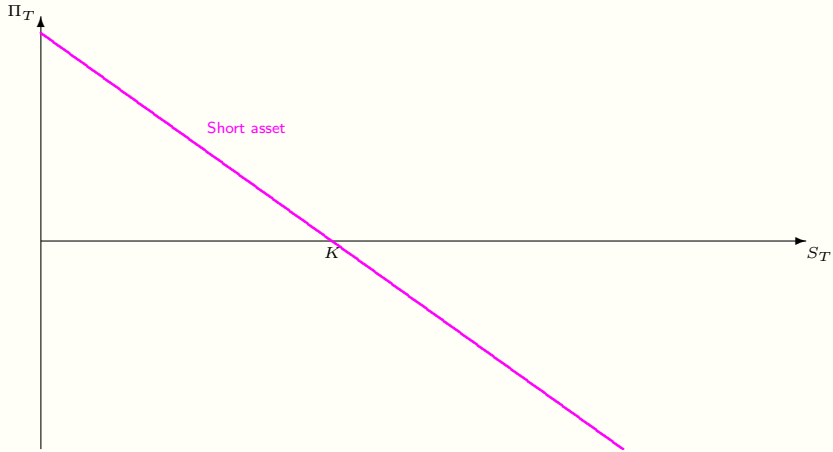
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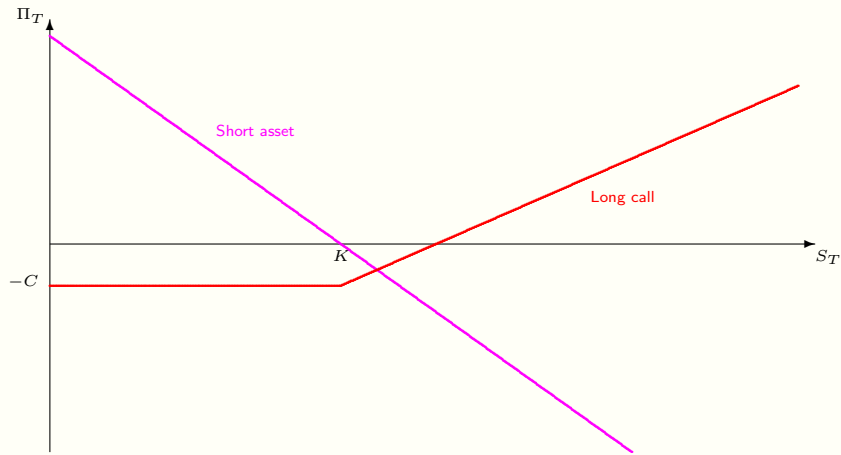
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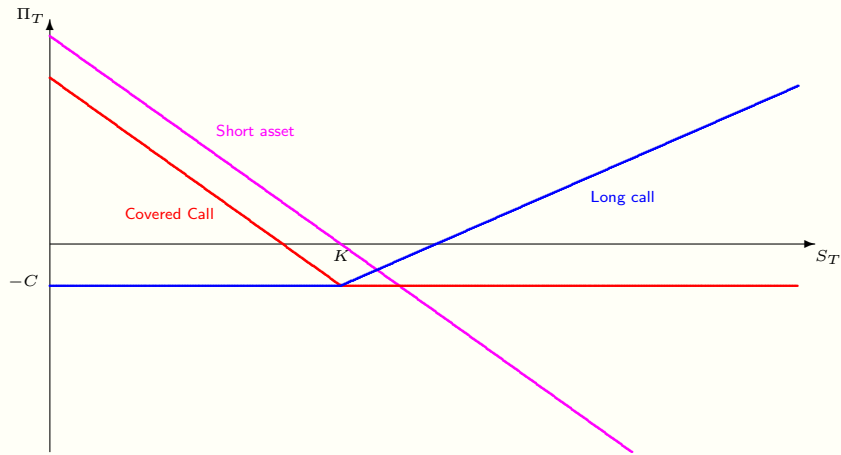
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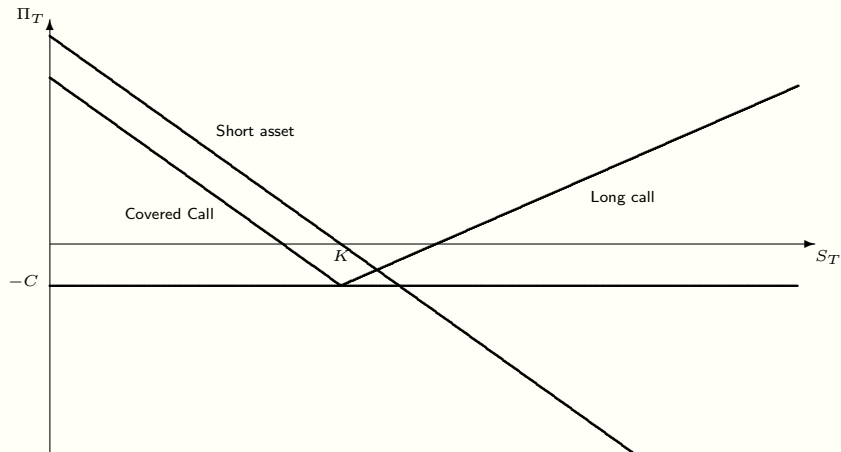
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Hedging a short position in the underlying asset



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