Consider the setup of a damped pendulum. The magnetic field $\vec{B}$ is into the paper.

Find the direction of the force due to $\vec{B}$ asserted on the metal plate, as it leaves the region.

A) The direction of $F_B$ is $\rightarrow$.

B) The direction of $F_B$ is $\leftarrow$. 
As the plate is leaving the rectangular region, $\vec{B}_{ind}$ opposes the flux change in the plate. $\vec{B}_{ind}$ has the same direction as that of $\vec{B}$, $I_{ind}$ is clockwise,

$$\vec{F} = I_{ind} \Delta L \times \vec{B},$$

which leads to the pulling back force.

Answer B.

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