

$$\frac{\partial ghg}{\partial p_d}$$


Direct effect:

$$-\gamma_d f(p_d)$$

$$f'(p_d) < 0$$

Effect through price index:

$$\frac{\partial P}{\partial p_d}$$

Fuel switching effect:

$$\frac{\partial \tilde{\varphi}_d^{\rho-1}}{\partial p_d} < 0$$

$$\frac{\partial \tilde{\varphi}_c^{\rho-1}}{\partial p_d} > 0$$