$$b_2^{\mathrm{MHK}} = \frac{\sum_{i=1}^{n}(p_i - \overline{p})(w_i - \overline{w})}{\sum_{i=1}^{n}(w_i - \overline{w})^2} = \frac{\sum_{i=1}^{n}([\beta_1 + \beta_2 w_i + u_{\mathrm{pi}}] - [\beta_1 + \beta_2 \overline{w} + \overline{u}_p])(w_i - \overline{w})}{\sum_{i=1}^{n}(w_i - \overline{w})^2} = \frac{1}{1} = 1 + \frac{0}{1}$$

(1)