Are the secondary-to-primary voltage and current ratios in an ideal transformer dependent on L_1 and L_2?

Indirectly. They depend on the turns ratio, which in turn depends on the inductance ratio:

$$\frac{V_2}{V_1} = n \qquad \text{(ideal transformer with dots on same ends).}$$

$$\frac{I_2}{I_1} = \frac{1}{n} \qquad \text{(ideal transformer with dots on same ends).}$$

$$\frac{L_2}{L_1} = \frac{N_2^2}{N_1^2} = n^2.$$