We study the robustness of option prices to model variation after a change of measure where the measure depends on the model choice. We consider geometric Lévy models in which the infinite activity of the small jumps is approximated by a scaled Brownian motion. For the Esscher transform, the minimal entropy martingale measure, the minimal martingale measure and the mean variance martingale measure, we show that the option prices and their corresponding deltas converge as the scaling of the Brownian motion part tends to zero. We give some examples illustrating our results.