Large tick assets: implicit spread and optimal tick size

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In this work, we provide a framework linking microstructural properties of an asset to the tick value of the exchange. In particular, we bring to light a quantity, referred to as "implicit spread", playing the role of spread for large tick assets, for which the effective spread is almost always equal to one tick. The relevance of this new parameter is shown both empirically and theoretically. This implicit spread allows us to quantify the tick sizes of large tick assets and to define a notion of "optimal tick size". Moreover, our results open the possibility of forecasting the behavior of relevant market quantities after a change in the tick value and to give a way to modify it in order to reach an optimal tick size. Thus, we provide a crucial tool for regulators and trading platforms in the context of high frequency trading. This is joint work with Khalil Dayri.