After bubbles, PoW cryptocurrencies have a tendency to enter prolonged low-volatility periods. It is hypothesized that the fundamental reason behind it is a negative feedback mechanism tied to electricity consumption by miners:

Bubbles result in a build-up of miner capacity in excess of post-bubble demand; the crash of the market price of the PoW cryptocurrency results in some of the less efficient miners reaching the so-called shut-down point, where mining revenues do not cover opex costs (mostly electricity). This also implies that the profit margins on mining are thin and the miners are forced to sell the majority of the newly minted coins on the market. Thus, market price fluctuations are closely followed by the hash rate because of marginally efficient miners going online and offine with ups and downs, respectively. Therefore, the value of freshly minted coins showing up on the supply side of the market, measured in electricity consumption, closely follows the price, increasing and decreasing the supply with the price. The total amount of freshly minted coins entering the market is roughly constant, as miners spend almost all of their revenue on opex.

Strong speculative forces can and sometimes do jolt the market out of this equilibrium, but in their absence the observable volatility is remarkably low over extended periods of time. Abrupt advances in miner efficiency and other situations where miners cannot be brought online sufficiently fast following increases in market price can disrupt this equilibrium permanently. However, sharp declines in market value usually result in a new equilibrium of similar nature at a price point different from the previous one.

Without PoW, PoS validators are not forced to sell almost all their revenues, as their opex is almost negligible compared to the revenue and even more importantly unrelated to the price of the coin in which they are rewarded for validation. The absence of the above described feedback mechanism anchoring opex to the market price as measured in a commodity in the physical world severes the link of PoS cryptocurrencies to value in physical reality.