Example of moving average digital filter (number of taps $M = 5, 12$) for monthly S&P 500 closing value. Note causal filtering delay, $(M - 1)/2$ samples.

$$y(n) = \sum_{k=0}^{M-1} \frac{1}{M} x(n - k)$$
Moving Average Filter Applied to Audio

Filter Frequency Response Magnitude ($h(n) = \frac{1}{M}, M = 0, \ldots, M - 1$)

Plainly, as $M$ increases, the lowpass filter cutoff frequency decreases. The filter is then applied to audio (sampling rate 8 kHz). The resulting audio time signals, and their spectra, are shown below.
Audio time signal: top is original; middle is MA filter output for $M = 5$; bottom is MA filter output for $M = 12$. Note the reduction in signal energy from top to bottom.

Spectra of original and MA filtered signals.