

Q

quad. A unit equal to one thousand million million (10^{15}) *British thermal units, often used for national power supplies. US total energy consumption is about 80 quad per year.

JWT

quality factor. *See* radiation dose.

quantity theory. Any of several theories concerning the demand for money, forming the essential theoretical underpinning of *monetarism. The basic idea is that a change in the *money supply will lead to *disequilibrium in the money market, with demand not equal to supply, the effects of which will work through to other markets in the economy. If, for example, the money supply is increased when the economy is operating at full capacity, the attempt by people to spend the additional money on goods and services will not result in extra output, but only in higher prices. The *inflation will continue until *equilibrium is restored in the relationship between the demand for and supply of money.

MC

quantum. The minimum amount by which the energy of a system can change.

The quantum of electromagnetic radiation is the *photon.

JWT

quantum efficiency. The fraction of light quanta or *photons utilized in a photon-sensitive device or process, such as *photovoltaic conversion or *photosynthesis. In photosynthesis this fraction is also known as the *photosynthetic efficiency.

JWT

quota. A limit imposed on the quantity of goods purchased, as in the case of imports, or produced, as in planned economies and some *cartels. An import quota may be imposed as a means of *protection or as a means of reducing a *balance of payments deficit.

MC

Q-value. Of a nuclear reaction, the energy released by that reaction. It is positive for *exothermic reactions and negative for *endothermic reactions. It should be noted that in chemical reactions the sign convention is the opposite. Q is represented by ΔH , *enthalpy change, which for exothermic chemical reactions has a negative sign.

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