

Some Useful Latin and Greek

Enda Hargaden

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Centuries ago, prior to the current ubiquity of English, academics largely relied on Latin as the unified language for international communication.¹ Academic textbooks have retained a (somewhat irritating) tendency to include Latin phrases. Many of us did not learn Latin in high school so this has always struck me as inefficient. I thus compiled this list of common Latin phrases to lower your search costs.²

Phrase	Translation
<i>A priori</i>	Pre-supposed; your “priors beliefs”.
<i>Ad infinitum</i>	To infinity; and so on.
<i>Ad valorem</i>	Per value; a 10% tax is an ad valorem tax, whereas a duty per gallon of gasoline is not.
<i>Ceteris paribus</i>	All else equal e.g. “We would expect, ceteris paribus, that an increase in price would lower quantity demanded.”
<i>De facto</i>	For all practical purposes, but not officially.
<i>De jure</i>	By law.
<i>Ex ante</i>	Before the event; in anticipation.
<i>Ex post</i>	After the event; in retrospect.
<i>Per se</i>	Literally; by itself.
<i>Prima facie</i>	In the first instance; at first glance.
<i>QED</i>	As has been asked to be shown; done.
<i>Ultra vires</i>	Beyond their power, e.g. the court ruled that Congress were acting ultra vires.

Equivalently economists often use Greek letters to refer to quantities. This makes a little more sense than the use of Latin. Specifically, Latin letters (A, B, C, ...) will usually refer to *variables* (e.g. labor, capital, output) and Greek letters to *parameters* (e.g. the inflation rate, elasticity).

You are probably familiar with π , and if you take any statistics classes you will soon become familiar with μ and σ . In particular economists are big fans of α and β , but δ , λ and ρ also make regular appearances. As a reference, here’s the Greek alphabet and (where applicable) what they typically mean in economics.

¹At least this was the reason given for my undergraduate commencement being in Latin.

²But I should point out that I have never taken a Latin class, so this is all just what I’ve picked up.

Lower-case	Upper-case	Pronunciation	Economic meaning
α	A	Alpha	Capital share of income
β	B	Beta	Regression coefficient
γ	Γ	Gamma	N/A
δ	Δ	Delta	Depreciation
ϵ	E	Epsilon	Elasticity
ζ	Z	Zeta	N/A
η	H	Eta	N/A
θ	Θ	Theta	N/A
ι	I	Iota	N/A
κ	K	Kappa	N/A
λ	Λ	Lambda	The Lagrange multiplier ³
μ	M	Mu	Mean
ν	N	Nu	N/A
ξ	Ξ	Xi	N/A
\omicron	O	Omicron	N/A
π	Π	Pi	Either inflation, or the product of a series ⁴
ρ	ρ	Rho	The coefficient of autoregression ⁵
σ	Σ	Sigma	Standard deviation ⁶ or the sum of series ⁷
τ	T	Tau	Tax
υ	Υ	Upsilon	N/A
ϕ	Φ	Fy	N/A
χ	X	Chi (rhymes with 'guy')	Used in statistics ⁸
ψ	Ψ	Psi (like 'Si')	N/A
ω	Ω	Omega	N/A

³The Lagrange multiplier is used to solve for constrained optimization problems.

⁴If done in the sense of $\prod_{i=1}^N x_i$

⁵If X_t (e.g. X is inflation and the t is 2011) depends on X_{t-1} (which, in our example, would be inflation in 2010), then X is said to be "autoregressive." These types of processes are particularly common in macro. The strength of the correlation is measured by ρ .

⁶Imagine Group A whose ages are 39 and 41, and Group B whose ages are 30 and 50. Both have an average age of 40 but Group B is dispersed further from that average. Standard deviation is a measure of dispersal.

⁷If done in the sense of $\sum_{i=1}^N x_i$

⁸The χ^2 distribution, the sum of (squared) Normally-distributed variables, is very commonly used.