The addition of exogenous enzymes to pig feed is used to enhance general nutrient availability and thus increase daily weight gain per feed unit. The enzymes used are mainly beta-glucanase (EC 3.2.1.4) and xylanase (EC 3.2.1.8) and phytase (EC 3.1.3.8). Although in vivo data assessing feed enzyme activity during intestinal transit are few, it is known that the enzymes, being protein molecules, can be negatively affected by the gastrointestinal proteolytic enzymes and the low pH in the stomach ventricle. In this review, the pH-values, endogenous proteases and other factors native to the digestive tract of the adult pig and the piglet are discussed in relation to the stability of exogenous feed enzymes. Development of more consistent assessment methods which acknowledge such factors is warranted both in vitro and in vivo for proper evaluation and prediction of the efficiency of exogenous enzymes in the porcine gastrointestinal tract.