Topic of mergers and acquisitions (M&A) is popular both in academia and financial circles and press. A great deal of research has been focused on the value creation side of M&A deals, nonetheless factors influencing the particular method of payment used in M&A transactions are equally interesting. This thesis focuses on number of factors influencing the choice of medium of exchange in M&A deals with European Union domiciled bidders. Using Bayesian model averaging and a relatively new dataset of transactions announced between 2010 and 2018, the analysis finds several bidder, target and deal specific characteristics to be of a provable effect on the choice of payment. Finally, several enhancements and research questions for a further research are identified.