This research work is centered on the impact of exchange rate fluctuation on the Nigerian economic growth emphasizing the purchasing power of the average Nigerians and the level of international transaction. Exchange rate fluctuations have been of serious concern to the monetary authorities, policy makers and business tycoons of developing countries, Nigeria inclusive because of the relevance of exchange rate in international trade, investment and in determining the level of output growth of a country. Therefore it is vital to examine the degree at which exchange rate fluctuates which had called for a lot of attention in Nigeria. This study examined the Impact of Exchange Rate Fluctuation on the Nigerian Economic Growth using an annual data of forty-three (43) years covering the period (1970 – 2013). The standard deviation method was employed to capture and estimate the fluctuation inherent in the model as regards the research’s objective. The study employed econometric techniques such as; Multiple Regression Model, Augmented Dickey Fuller (ADF) test, Johansen Co-integration test and the Error Correction Model (ECM). Evidence from this study exhibited that there exists a positive but insignificant impact of exchange rate fluctuation on Nigerian economic growth in both the long run and short run. This result is attributed to the ability of the Nigerian government to effectively regulate some other important macroeconomic variables which can infuriate exchange rate this regulation has thereby helped curtail the effects of exchange rate fluctuation during the study period.