

Project Abstract for R/Finance 2014

Heidi Chen^{*}, David Kane[†], and Yang Lu[‡]

January 21, 2014

The **CDS** package offers tools to calculate the value of a Credit Default Swap (CDS). A CDS is a financial swap agreement between two counterparties where the buyer pays a fixed periodic coupon to the seller in exchange for protection of an occurrence of a credit event. The International Swaps and Derivatives Association (ISDA) has created a set of standard terms for the new CDS contracts. These new contracts are required to trade at a standardized fixed coupon rate (100/500 bps) with full first coupon. The ISDA has also provided the Standard Model to calculate cash settlement from conventional spread, convert between conventional spread and upfront payment, and build the yield curve of a CDS. The **CDS** package implements the ISDA Standard Model, allowing users to value both newly created and existing CDS contracts and compute their rates of returns.

^{*}s.heidi.chen@gmail.com

[†]dave.kane@gmail.com

[‡]yang.lu2014@gmail.com