R Generate and Combine Fixed and Random Matrix

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Go back to fan's REconTools Package, R4Econ Repository, or Intro Stats with R Repository.

```
options(knitr.duplicate.label = 'allow')
```

```
library(tidyverse)
library(knitr)
library(kableExtra)
# file name
st_file_name = 'fs_genmatrix'
# Generate R File
purl(paste0(st_file_name, ".Rmd"), output=paste0(st_file_name, ".R"), documentation = 2)
# Generate PDF and HTML
# rmarkdown::render("C:/Users/fan/R4Econ/support/matrix/fs_genmatrix.Rmd", "pdf_document")
# rmarkdown::render("C:/Users/fan/R4Econ/support/matrix/fs_genmatrix.Rmd", "html_document")
```

Generate Matrixes

Create a N by 2 Matrix from 3 arrays

Names of each array become row names automatically.

```
ar_row_one <- c(-1,+1)
ar_row_two <- c(-3,-2)
ar_row_three <- c(0.35,0.75)

mt_n_by_2 <- rbind(ar_row_one, ar_row_two, ar_row_three)
kable(mt_n_by_2) %>%
  kable_styling(bootstrap_options = c("striped", "hover", "responsive"))
```

ar_row_one	-1.00	1.00
ar_row_two	-3.00	-2.00
ar_row_three	0.35	0.75

Generate Random Matrixes

Random draw from the normal distribution, random draw from the uniform distribution, and combine resulting matrixes.

```
# Generate 15 random normal, put in 5 rows, and 3 columns
mt_rnorm <- matrix(rnorm(15,mean=0,sd=1), nrow=5, ncol=3)

# Generate 15 random normal, put in 5 rows, and 3 columns
mt_runif <- matrix(runif(15,min=0,max=1), nrow=5, ncol=5)

# Combine
mt_rnorm_runif <- cbind(mt_rnorm, mt_runif)

# Display
```

```r
kable(mt_rnorm_runif) %>%
  kable_styling(bootstrap_options = c("striped", "hover", "responsive"))
```

-0.7969171	2.7477969	-0.2281850	0.6558334	0.2188331	0.6838665	0.6558334	0.2188331
-0.2306781	1.2252401	-0.9594279	0.1421951	0.4857166	0.3985179	0.1421951	0.4857166
-0.6892750	-0.8231107	1.1485118	0.0083793	0.5326487	0.9774733	0.0083793	0.5326487
-0.0118199	0.0441010	2.0894766	0.0326665	0.7258459	0.4974093	0.0326665	0.7258459
0.5377780	-0.3945778	0.2163509	0.5714857	0.7619183	0.0599680	0.5714857	0.7619183