Thank you for taking the time to test BEA's R library. The library is intended to make it easier to retrieve and work with BEA data.

After you test the library, please send any feedback and, if possible, code that you have written to Developers@bea.gov (feedback and code can be provided together as an .Rmd file, or can be provided separately, in the formats of your preference).

More in-depth documentation is available at https://github.com/us-bea/beaR

To Install and Load the beaR Library

Please take the following steps:

1. Run the following line of code to install the 'httr' and 'devtools' packages:

```
install.packages(c('httr', 'devtools'))
```

2. Load the packages listed in Step 1 using the 'library' function:

```
library(devtools)
library(httr)
```

3. Install the beaR library from the BEA GitHub repo:

```
set_config( config( ssl_verifypeer = 0L ))          #zero L
install_github('us-bea/beaR')
```

4. Load beaR using the library function.

```
library(beaR)
```

You are now ready to use beaR!

To Get Started

You must first register for an API key from BEA by providing your name and email address. The key will be emailed to you.

Once you have received your BEA API key, save it to a variable to make it easier to use later:

```
beaKey <- "YOUR 36-DIGIT BEA API KEY"
```

To Use beaSearch and beaGet

Currently, the beaR library offers two main methods: **beaSearch** and **beaGet**.

beaSearch

This method allows you to search for BEA data by keyword. For example, to find all datasets in which the term "personal consumption" appears, use the following:

```
beaSearch("personal consumption", beaKey)
```

Please note that beaSearch currently searches only national and regional data.

beaGet

Once you have identified the TableID number and other information, you can use beaGet to access the data. The following code, for example, returns the NIPA table with 2015 data for TableID no. 66.

```
beaPayload <- beaGet(
 list(
    UserID = beaKey,
    Method = "GetData",
    datasetname = "NIPA",
    TableID = "66",
    Frequency = "Q",
    Year = "2015",
    ResultFormat = "json"
 )
)
```

To retrieve multiple years, list all the years. For example, to retrieve data for 2011-2015, use Year='2011,2012,2013,2014,2015'.

To retrieve all possible years, use Year='X'.

The API documentation includes information about the specific parameters required by beaGET.

To Use beaViz

The beaR library also includes an experimental method to create a visual dashboard. This method is still under development. Currently, it is designed to work with the standard R Console interface—not with other interfaces such as RStudio. (However, if you want to experiment with beaViz in RStudio, click on "Open in Browser" at the top of pop-up box after you execute the beaViz method.

The beaViz method allows you to pass a variable generated from beaGet to create a dashboard. To use the "beaPayload" example given above, use the

```
beaViz(beaPayload)
```

Please note that beaViz is currently only available for use with the NIPA and NIUnderlyingDetail datasets and the associated metadata.

BEA is open to any thoughts you may have about visually representing BEA data.