

Household Economy

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Data

```
library(knitr)
load("./hh_econ_10th_en.RData")
```

ggplots

Data Reshaping

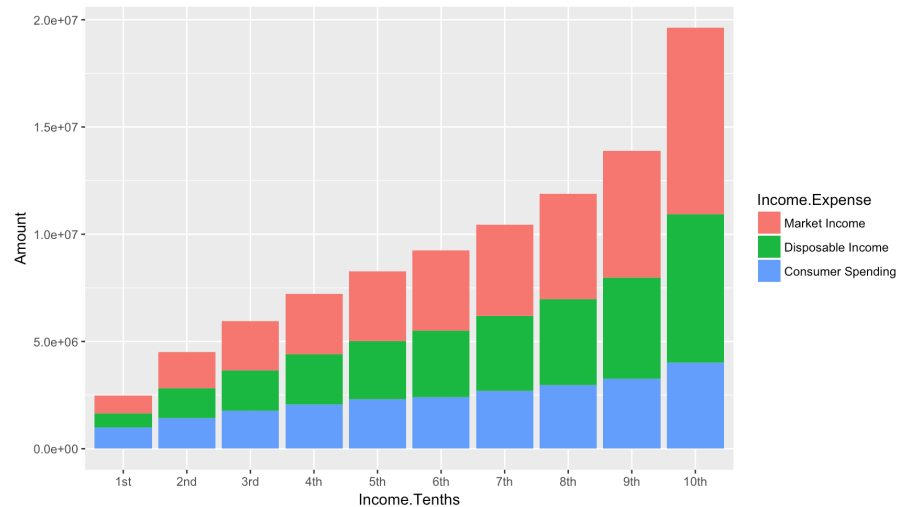
```
library(reshape2)
dimnames(hh.econ.10th.11.2) <- list("Income.Expense" = rownames(hh.econ.10th.11.2),
  "Income.Tenths" = colnames(hh.econ.10th.11.2))
kable(hh.econ.10th.melt <- melt(hh.econ.10th.11.2, value.name = "Amount"))
```

Income.Expense	Income.Tenths	Amount
Market Income	1st	831396
Disposable Income	1st	646782
Consumer Spending	1st	1000341
Market Income	2nd	1678195
Disposable Income	2nd	1389675
Consumer Spending	2nd	1436967
Market Income	3rd	2289491
Disposable Income	3rd	1898012
Consumer Spending	3rd	1763862
Market Income	4th	2811303
Disposable Income	4th	2338298
Consumer Spending	4th	2074739
Market Income	5th	3268634
Disposable Income	5th	2707953
Consumer Spending	5th	2302210
Market Income	6th	3742024
Disposable Income	6th	3098200
Consumer Spending	6th	2399041

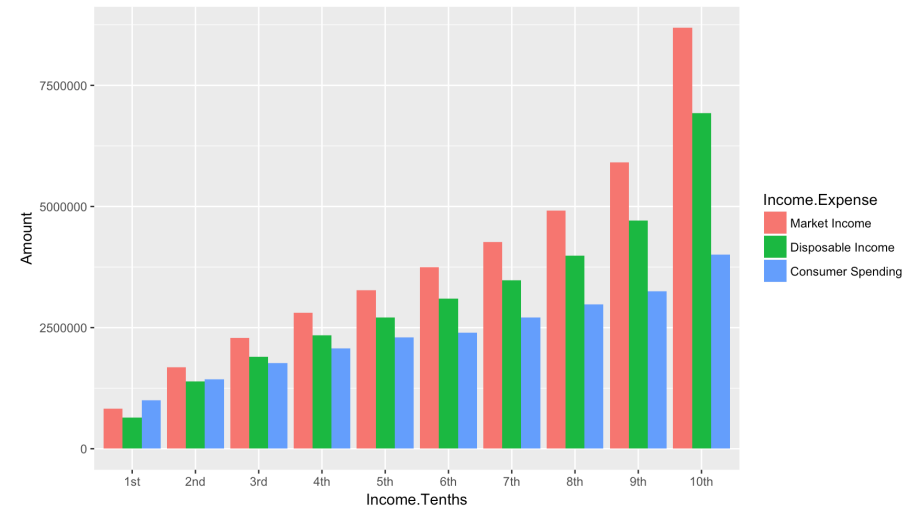
Income.Expense	Income.Tenths	Amount
Market Income	7th	4268755
Disposable Income	7th	3476596
Consumer Spending	7th	2706587
Market Income	8th	4913083
Disposable Income	8th	3988747
Consumer Spending	8th	2977272
Market Income	9th	5914052
Disposable Income	9th	4713301
Consumer Spending	9th	3251683
Market Income	10th	8692134
Disposable Income	10th	6930156
Consumer Spending	10th	4011523

ggplots step by step

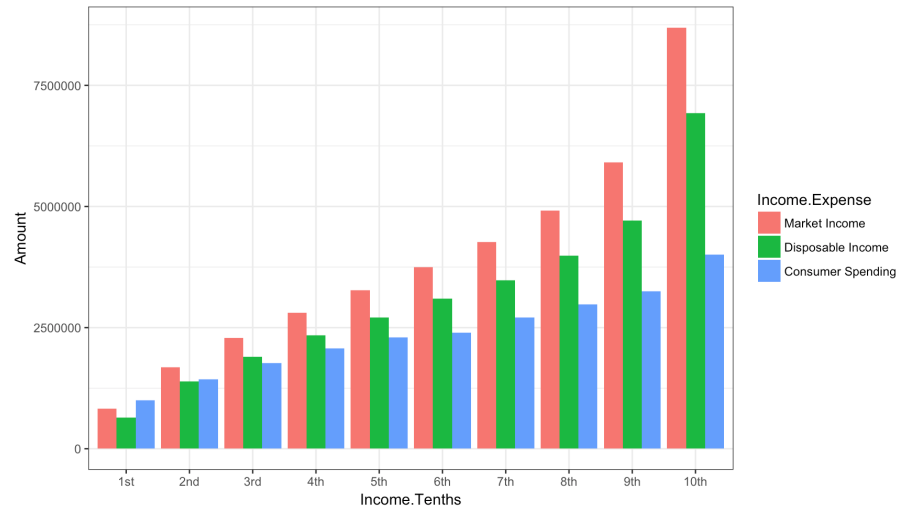
```
library(ggplot2)
# source("./theme_kr_HCR.R")
gg.title <- "Income and Consumer Expenditure for each Tenth (2011 4/4)"
x.lab <- "Income Tenth"
y.lab <- "Amount in Thousand Won"
Income.Amount <- hh.econ.10th.melt[hh.econ.10th.melt$Income.Expense == "Market Income", "Amount"]
# legend.lab <- c("Market Income", "Consumer Spending", "Disposable Income")
# (g1 <- ggplot(hh.econ.melt, aes(x = Income.Fifth, y = Amount, fill = Income.Expense, colour = Income.Expense, group = Income.Expense)) +
#   geom_bar(stat = "identity"))
# (g1 <- ggplot(hh.econ.melt, aes(x = Income.Fifth, y = Amount, fill = Income.Expense, colour = Income.Expense, group = Income.Expense)) +
#   geom_bar(stat = "identity", position = "dodge"))
(g1 <- ggplot(hh.econ.10th.melt, aes(x = Income.Tenths, y = Amount, fill = Income.Expense)) +
  geom_bar(stat = "identity"))
```



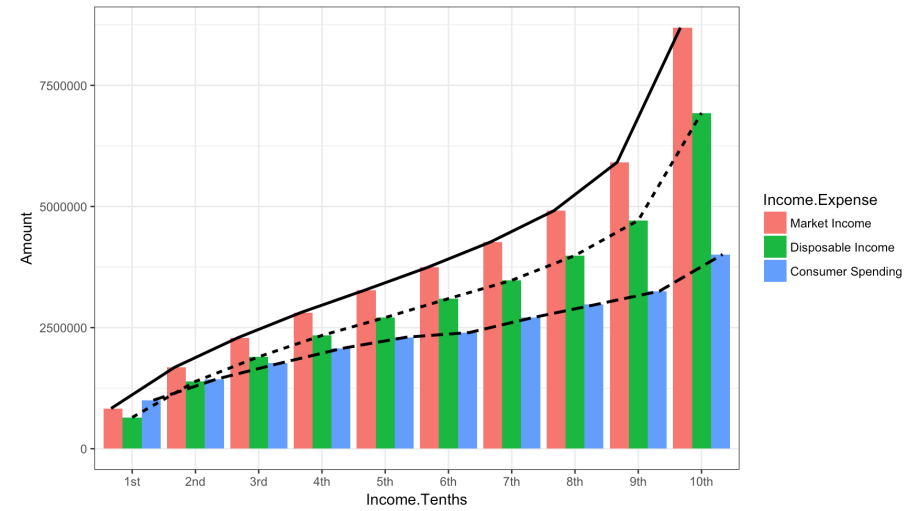
```
(g1 <- ggplot(hh.econ.10th.melt, aes(x = Income.Tenths, y = Amount, fill = Income.Expense)) +
  geom_bar(stat = "identity", position = "dodge"))
```



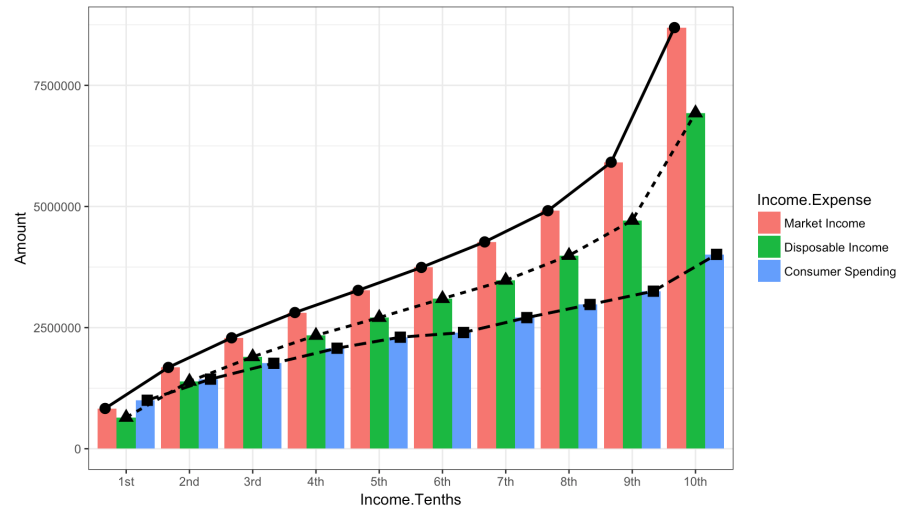
```
(g2 <- g1 +  
  theme_bw())
```



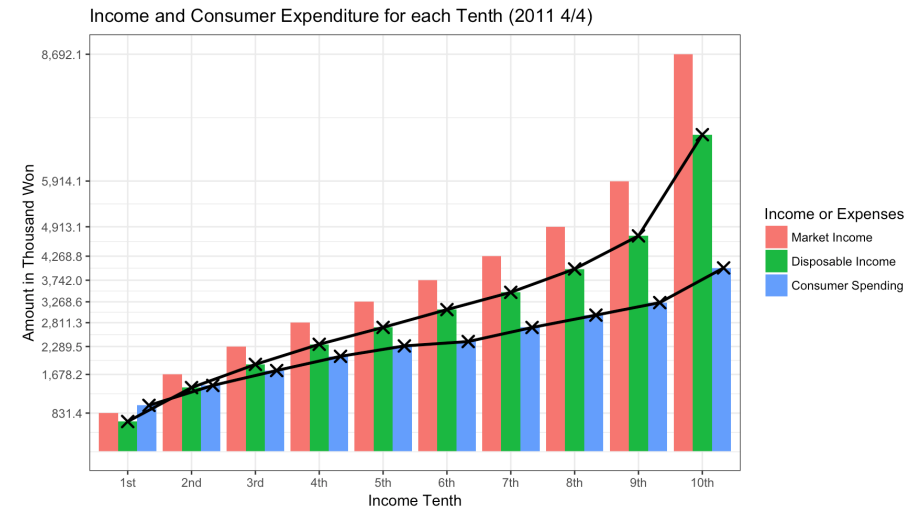
```
(g3.1 <- g2 +  
  geom_line(aes(group = Income.Expense, linetype = Income.Expense), position = position_dodge(width = 1.0), size = 1, na.rm = TRUE, show.legend = FALSE))
```



```
(g3.2 <- g3.1 +
  geom_point(aes(group = Income.Expense, shape = Income.Expense), position = position
_dodge(width = 1.0), size = 3, stroke = 1.2, na.rm = TRUE, show.legend = FALSE))
```

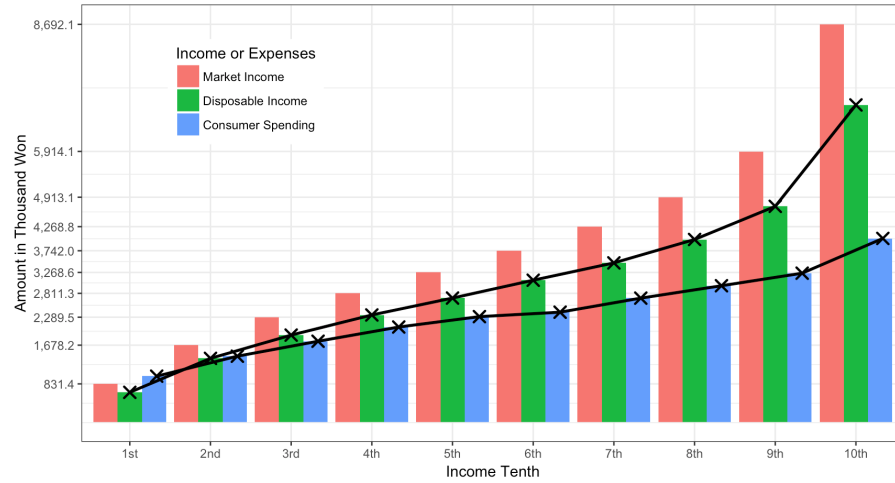


```
(g4 <- g3.2 +
  scale_y_continuous(breaks = Income.Amount,
    labels = format(Income.Amount/1000,
      digits = 1,
      nsmall = 1,
      big.mark = ",")) +
  scale_linetype_manual(values = c("blank", "solid", "solid")) +
  scale_shape_manual(values = c(NA, 4, 4)) +
  labs(title = gg.title, x = x.lab, y = y.lab, fill = "Income or Expenses"))
```



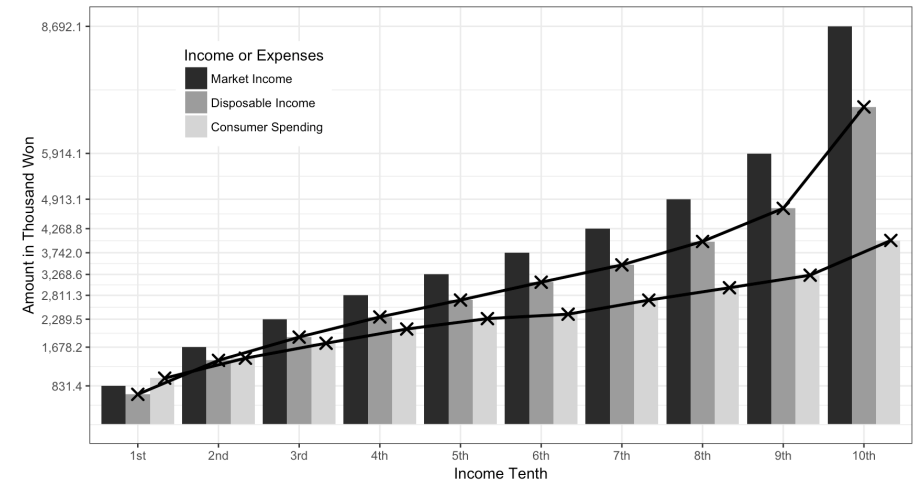
```
(g5 <- g4 +  
  theme(legend.position = c(0.2, 0.8)))
```

Income and Consumer Expenditure for each Tenth (2011 4/4)

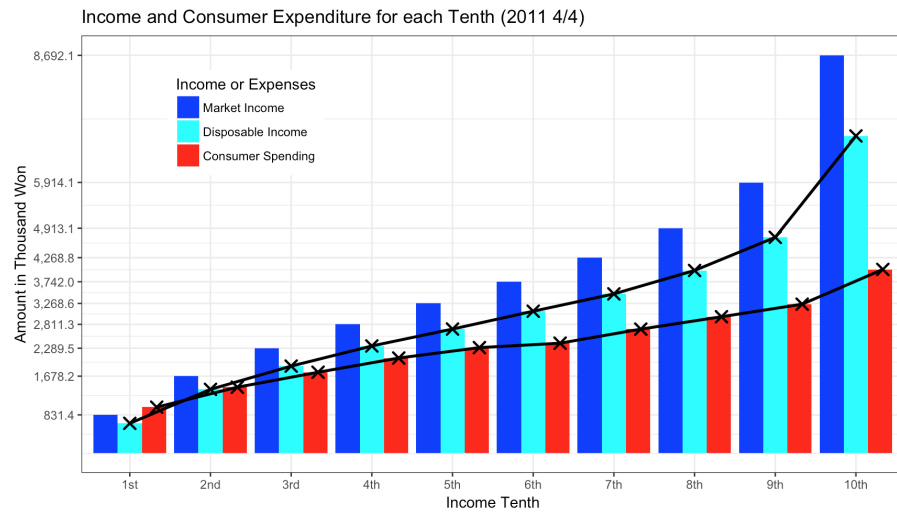


```
(g6 <- g5 +  
  scale_fill_grey(start = 1/6, end = 5/6) +  
  scale_colour_grey(start = 1/6, end = 5/6))
```

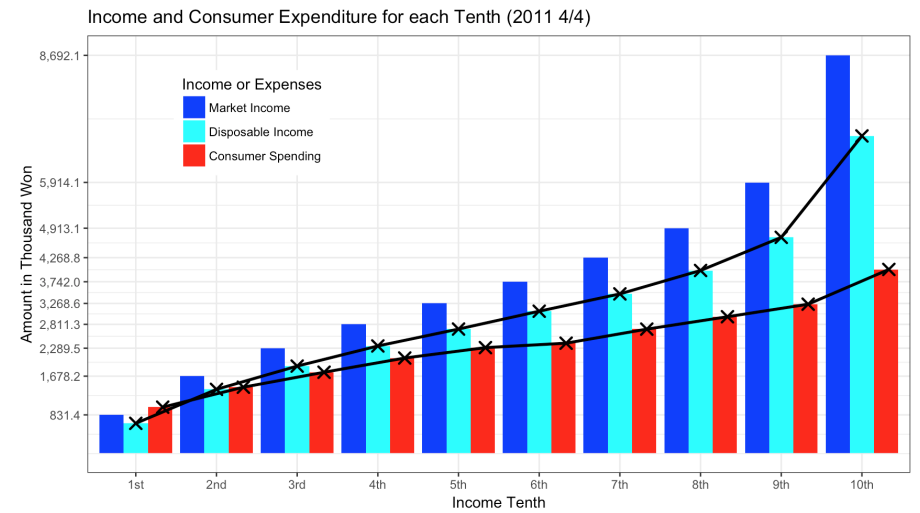
Income and Consumer Expenditure for each Tenth (2011 4/4)



```
(g7 <- g5 +
  scale_fill_manual(values = c("blue", "cyan", "red")))
```



```
(g8 <- g7 +
  theme(legend.key = element_blank()))
```



```
ggsave("../pics/no_trickle_down_effects_10th.png")
```

```
## Saving 9 x 5.1 in image
```