In [1]:
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# Question 3: Do venture capitalists tend to
# invest domestically, or are their investments diversified with international inv
estments?
```

In [2]:
```
# %load Q3.py
import pandas as pd
from bokeh.io import show, output_file
from bokeh.plotting import figure
from bokeh.models import ColumnDataSource, Panel, Tabs, FactorRange
from bokeh.models.tools import HoverTool
from bokeh.transform import factor_cmap


output_file('q3.html')


def markDomestic(row):
  '''
  Marks an investment as domestic if countries are the same.
  '''
  return row.company_country_code == row.investor_country_code

investments = pd.read_csv('investments.csv')

investments.dropna(subset=['investor_name', 'raised_amount_usd', 'company_country_
code'], inplace=True)

def makePlot(option='sum'):
  # First determine 'top investors'
  grouped_investors = investments.groupby('investor_name', sort=False)['raised_amo
unt_usd']
  invested_by_each_vc = grouped_investors.sum()

  # if we want to determine top investors by overall number of investments made, t
hen option == 'count
  if option == 'count':
    invested_by_each_vc = grouped_investors.count()

  # of the 'top' investors, take only the top 5
  top = invested_by_each_vc.nlargest(5)
  # top.index is list of investor names
  top = top.index

  df_top = investments[investments.investor_name.isin(top)]

  domestic = df_top.apply(markDomestic, axis=1)

  df_top = df_top.assign(domestic=domestic)

  groups = df_top.groupby('investor_name')

  # Prepare data for plotting
  ticks = ['Domestic', 'International']
  investor_names = []
  international = []
  domestic = []
  for company, data in groups:
    investor_names.append(company)
    temp = data.domestic.value_counts()
    international.append(temp[False])
    domestic.append(temp[True])

  data = {
    'investors' : investor_names,
    'International': international,
    'Domestic' : domestic
  }
```

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