

In[18]= (\*Calculating the change in Price from Bloomberg 10 year Brazilian par bonds  
T reflects three month reduction in term to maturity; COUP is the par  
bond yield observed at t = 0; r is the yield observed at t=1 \*)

T = 9.75

COUP = 11.92

r = .1281

$(COUP * ((1 / r) - (1 / (r * ((1 + r) ^ T)))) + (100 / ((1 + r) ^ T))$

Out[18]= 9.75

Out[19]= 11.92

Out[20]= 0.1281

Out[21]= 95.1974238

In[22]= (\* Calculating the local return for the Game \*)

In[23]=  $((95.20 - 100 + (11.92 / 4)) / 100)$

Out[23]= -0.0182

In[24]= (\* Calculating the FX rate Sept 15 S(0) = .2426 CAD to BRL  
Nov. 21 S(1) =.2404 CAD to BRL from  
<https://www.xe.com/currencyconverter/> \*)

.2404 / .2426

Out[24]= 0.990931575

In[25]= (\* Total Return \*)

$(1 - .0182) * \%$

Out[25]= 0.97289662

In[26]= % - 1

Out[26]= -0.02710338

In[27]= (\*Calculating the US GOVT ishares Treasury ETF local return  
Sept 16 P(0) = 23.66 Nov.20 P(1) = 22.63 COUP (.0314/4) \* 23.66  
Quotes from Globe investor\*)

$(22.63 + ((.0314 / 4) * 23.66)) / 23.66$

Out[27]= 0.96431661

In[28]= (\*Calculating FX rate S(1) = 1.397 S(0) = 1.3578 \*)  
 $(1.397 / 1.3578)$

Out[28]= 1.02887023

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In[31]= (* Total return *)  
        (.9643) * 1.0289
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Out[31]= 0.99216827
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In[32]= % - 1
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Out[32]= -0.00783173
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