Europe

September 14, 2023

[ ]:
```
import pandas as pd
import matplotlib.pyplot as plt
from fredapi import Fred
```

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```
fred_api_key = "ab35487ce38079a3d24b47ee3d75329f"
fred         = Fred(api_key=fred_api_key)
series_names = {
    'Germany':  'IRLTLT01DEM156N',
    'Greece':   'IRLTLT01GRM156N',
    'Italy':    'IRLTLT01ITM156N',
    'Ireland':  'IRLTLT01IEM156N',
    'Portugal': 'IRLTLT01PTM156N',
    'Spain':    'IRLTLT01ESM156N'
}

data_list = []
for series_key, series_name in series_names.items():
    data = fred.get_series(series_name, frequency='m')
    data.name = series_key
    data_list.append(data)
df = pd.concat(data_list, axis=1)

series_GIIPS = ['Greece', 'Italy', 'Ireland', 'Portugal', 'Spain']
df_diff = df[series_GIIPS].subtract(df['Germany'], axis=0)
```

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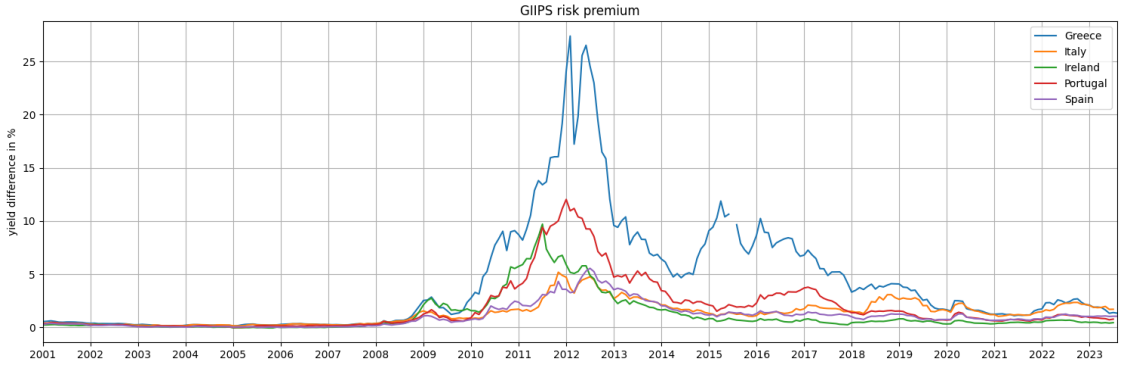
```
df_diff.loc['2001':,:].plot(figsize=(15,5), grid=True, title="GIIPS risk␣
 ↪premium")
plt.xticks(ticks=[str(year) for year in range(2001,2024)], labels=[str(year)␣
 ↪for year in range(2001,2024)])
plt.ylabel('yield difference in %')
plt.tight_layout()
plt.savefig("spreads_Europe.png", bbox_inches='tight')
plt.savefig("spreads_Europe.pdf", bbox_inches='tight')
```


GIIPS risk premium
yield difference in %
Greece
Italy
Ireland
Portugal
Spain
0
5
10
15
20
25
2001
2002
2003
2004
2005
2006
2007
2008
2009
2010
2011
2012
2013
2014
2015
2016
2017
2018
2019
2020
2021
2022
2023

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