In [ ]:

Graphs of Individual Emerging Market's Country, Sovereign, Political, Country Risk, GDP, Exports and Imports of Commodities

In [21]:
```python
import pandas as pd
import numpy as np

CountrybyCountryData=pd.read_excel  (r"C:\New folder\EMCompiledData2.xlsx")
CountrybyCountryData

CountrybyCountryData.columns.values.tolist()

CountrybyCountryData.rename(columns={'Unnamed: 0':'Country',
 'Unnamed: 1':'Year',
 'Unnamed: 2':'GDP Per Capita',
 'Unnamed: 3':'Political Risk',
 'Unnamed: 4':'Sovereign Risk',
 'Unnamed: 5':'Country Risk',
 'Unnamed: 6':'Exports of Commodities',
 'Unnamed: 7':'Imports of Commodities'},inplace=True)

CountrybyCountryData

IndividualCountryData=CountrybyCountryData.drop([0], axis=0)

IndividualCountryData
```

Out[21]:

	Country	Year	GDP Per Capita	Political Risk	Sovereign Risk	Country Risk	Exports of Commodities	Imports of Commodities
1	Argentina	1985	95.593	54.6667	9	34.62	97.7192	70.9022
2	Argentina	1986	114.949	56.1667	10.75	36.08	96.4283	58.2618
3	Argentina	1987	117.854	57.75	14.75	36.79	96.2956	56.9801
4	Argentina	1988	138.044	56.4167	17.8333	37.1	96.8642	62.768
5	Argentina	1989	88.567	58.6667	17.75	36.69	96.6824	60.9681
6	Argentina	1990	153.205	61.1667	21	41.67	96.4308	58.1513
7	Argentina	1991	205.515	65	28.1667	43.69	95.7648	52.1516
8	Argentina	1992	247.987	67.6667	36	47.04	95.7726	52.235
9	Argentina	1993	256.365	70.6667	37.75	48.25	95.9131	53.4786
10	Argentina	1994	279.15	75.4167	38	53.63	95.9753	54.2166
11	Argentina	1995	280.08	74.25	35.8333	52.96	95.9355	53.8096
12	Argentina	1996	295.12	75.4167	36	55.23	96.4847	58.5926
13	Argentina	1997	317.549	73.8333	34.8333	56.52	96.4014	57.6492
14	Argentina	1998	324.242	75.8333	33.5417	58.27	95.3294	48.6227
15	Argentina	1999	307.673	74.1667	33.4583	55.93	94.9158	45.1163
16	Argentina	2000	308.491	72.5833	28.625	55.54	95.6787	50.592
17	Argentina	2001	291.738	72.7083	28.7917	54.29	95.6733	50.7803
18	Argentina	2002	108.731	59.1667	17.7083	43.08	96.135	54.9877
19	Argentina	2003	138.151	60.7917	23.9167	47.02	96.6614	59.547
20	Argentina	2004	164.922	64.9167	29.4167	52.69	97.1754	64.2188
21	Argentina	2005	199.273	68.9583	32.125	54.02	96.9849	61.9721
22	Argentina	2006	232.892	71	37.5833	55.81	97.3723	65.7523
23	Argentina	2007	287.921	70.6667	37.7083	55.83	98.4133	77.5596
24	Argentina	2008	363.545	67	37.3333	52.92	99.7398	95.5415
25	Argentina	2009	334.633	64.875	34.6667	49.06	98.2045	75.183
26	Argentina	2010	424.728	64	39.125	50.5	98.8567	83.6518
27	Argentina	2011	527.644	66.4583	41.1667	53.29	100.031	100.938
28	Argentina	2012	579.666	65.2083	40.1667	50.92	100	100
29	Argentina	2013	611.471	61.9167	37.8333	48.63	100.068	101.215
30	Argentina	2014	563.614	62.0833	34.0833	46.63	99.6204	94.4242
...	...	...	...	...	...	...	...	...
604	Thailand	1987	52.204	55	29	45.71	96.7759	70.4796
605	Thailand	1988	63.704	59	34.25	47.46	96.7785	70.8071
606	Thailand	1989	74.637	58.75	40.5	47.27	96.3845	67.3122
607	Thailand	1990	88.467	60.4167	43.0833	48.98	96.0499	64.3347

	Country	Year	GDP Per Capita	Political Risk	Sovereign Risk	Country Risk	Exports of Commodities	Imports of Commodities
608	Thailand	1991	101.247	56.25	42	46.5	95.2375	58.4544
609	Thailand	1992	115.576	60.5833	42.9167	49.02	95.3042	58.9111
610	Thailand	1993	128.89	65	42.4167	52.15	94.8948	56.2036
611	Thailand	1994	146.684	67	42	53.79	95.7129	62.164
612	Thailand	1995	169.279	66.5	42.3333	54	96.4371	67.7633
613	Thailand	1996	183.035	72.0833	43.4167	56.79	96.0905	64.8213
614	Thailand	1997	150.18	74.75	39.0417	56.63	95.6006	61.2246
615	Thailand	1998	113.676	68.25	31.9583	48.54	94.7102	55.3037
616	Thailand	1999	126.669	68.6667	37.375	52.47	94.2052	51.6116
617	Thailand	2000	126.392	71.9167	38.4583	55.33	94.7451	54.7678
618	Thailand	2001	120.297	72.0417	38.125	55.06	94.0176	50.1725
619	Thailand	2002	134.301	72.4167	39.9583	55.27	94.3196	51.823
620	Thailand	2003	152.281	71	39.625	55.21	95.0958	56.868
621	Thailand	2004	172.895	69.2917	40.875	55.21	95.8254	61.815
622	Thailand	2005	189.318	65.25	41.7917	52.08	96.8475	69.6072
623	Thailand	2006	221.759	60.2917	41	48.98	98.2383	81.8434
624	Thailand	2007	262.943	56.375	41.5	47.31	98.2442	81.6775
625	Thailand	2008	291.383	58.2833	41.375	47.85	100.017	100.423
626	Thailand	2009	281.71	57.5	41.6667	44.73	98.7127	86.8535
627	Thailand	2010	341.105	55.6667	43.8333	46.25	100.388	104.997
628	Thailand	2011	370.818	57.1667	43.75	48.25	101.395	117.543
629	Thailand	2012	397.558	58.8333	43.0417	48.35	100	100
630	Thailand	2013	420.334	57.2917	42.5	47.35	100.398	105.171
631	Thailand	2014	407.339	54.2083	42.2083	46.02	99.5246	95.3156
632	Thailand	2015	401.266	55	41.875	46.73	97.619	76.7699
633	Thailand	2016	412.437	55.625	42.75	47.6	98.2967	83.3392

633 rows × 8 columns

In [ ]:

In [22]:

```python
import matplotlib.pyplot as plt
%matplotlib inline

fig, ((ax1, ax2), (ax3, ax4)) = plt.subplots(nrows=2, ncols=2,sharex=True,  fi
gsize=(15,5))

IndividualCountryData[IndividualCountryData['Country'] == 'Argentina'].plot.ba
r(x='Year', y='GDP Per Capita', legend=False, ax=ax1,fontsize=15)
ax1.set_title("Argentina GDP per Capita 1985-2016", fontsize=20)

IndividualCountryData[IndividualCountryData['Country'] == 'Brazil'].plot.bar(x
='Year', y='GDP Per Capita', legend=False, ax=ax2,fontsize=15)
ax2.set_title("Brazil GDP Per Capita 1985-2016",fontsize=20)

IndividualCountryData[IndividualCountryData['Country'] == 'China'].plot.bar(x=
'Year', y='GDP Per Capita', legend=False, ax=ax3,fontsize=14)
ax3.set_title("China GDP Per Capita 1985-2016",fontsize=20)
ax3.set_xlabel("")

IndividualCountryData[IndividualCountryData['Country'] == 'Chile'].plot.bar(x=
'Year', y='GDP Per Capita', legend=False, ax=ax4,fontsize=14)
ax4.set_title("Chile GDP Per Capita 1985-2016",fontsize=20)
ax4.set_xlabel("")

plt.tight_layout()
```
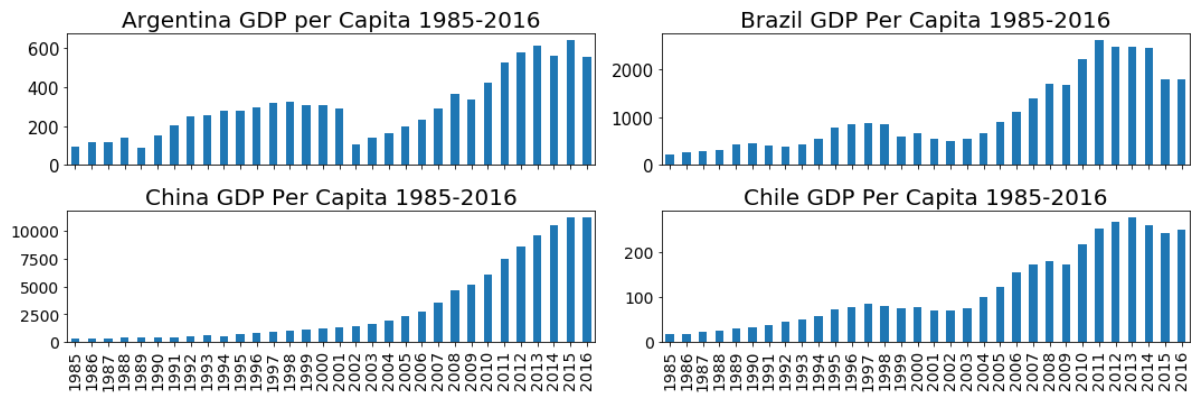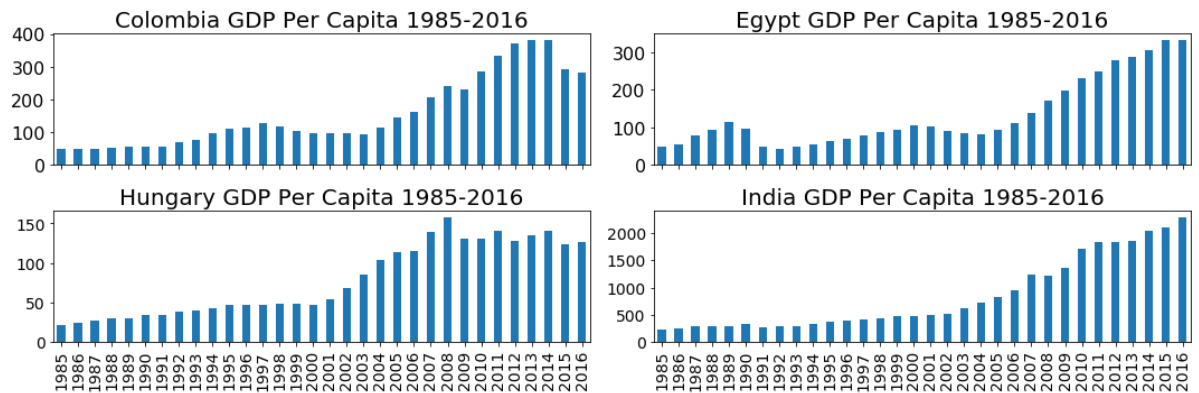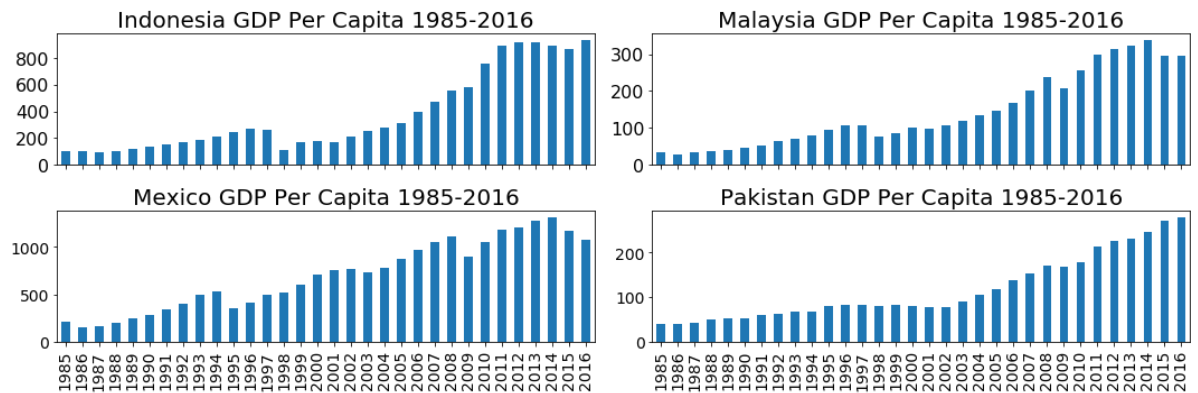
In [23]:
```python
import matplotlib.pyplot as plt
%matplotlib inline

fig, ((ax5, ax6), (ax7, ax8)) = plt.subplots(nrows=2, ncols=2,sharex=True,  fi
gsize=(15,5))

IndividualCountryData[IndividualCountryData['Country'] == 'Colombia'].plot.bar
(x='Year', y='GDP Per Capita', legend=False, ax=ax5,fontsize=16)
ax5.set_title("Colombia GDP Per Capita 1985-2016",fontsize=20)


IndividualCountryData[IndividualCountryData['Country'] == 'Egypt'].plot.bar(x=
'Year', y='GDP Per Capita', legend=False, ax=ax6,fontsize=16)
ax6.set_title("Egypt GDP Per Capita 1985-2016",fontsize=20)


IndividualCountryData[IndividualCountryData['Country'] == 'Hungary'].plot.bar(
x='Year', y='GDP Per Capita', legend=False, ax=ax7,fontsize=14)
ax7.set_title("Hungary GDP Per Capita 1985-2016",fontsize=20)
ax7.set_xlabel("")

IndividualCountryData[IndividualCountryData['Country'] == 'India'].plot.bar(x=
'Year', y='GDP Per Capita', legend=False, ax=ax8,fontsize=14)
ax8.set_title("India GDP Per Capita 1985-2016",fontsize=20)
ax8.set_xlabel("")

plt.tight_layout()
```
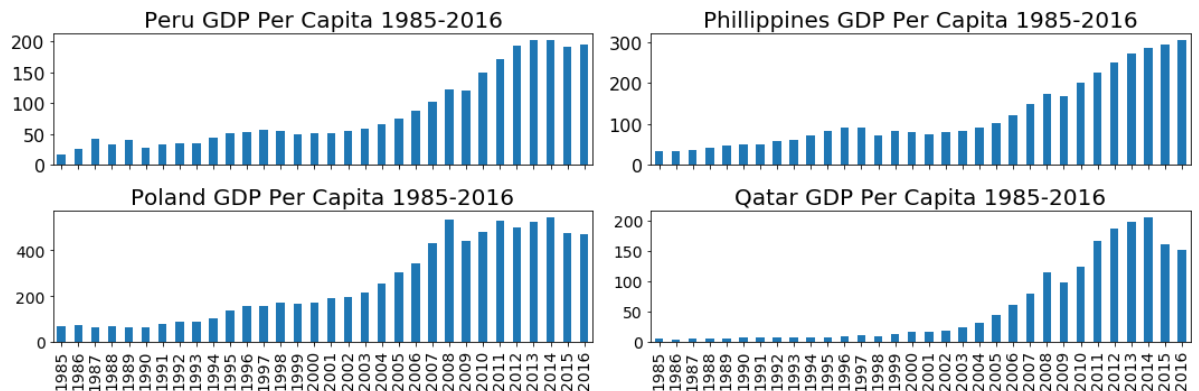
In [24]:

```python
import matplotlib.pyplot as plt
%matplotlib inline

fig, ((ax9, ax10), (ax11, ax12)) = plt.subplots(nrows=2, ncols=2,sharex=True,
figsize=(15,5))

IndividualCountryData[IndividualCountryData['Country'] == 'Indonesia'].plot.ba
r(x='Year', y='GDP Per Capita', legend=False, ax=ax9,fontsize=16)
ax9.set_title("Indonesia GDP Per Capita 1985-2016",fontsize=20)


IndividualCountryData[IndividualCountryData['Country'] == 'Malaysia'].plot.bar
(x='Year', y='GDP Per Capita', legend=False, ax=ax10,fontsize=16)
ax10.set_title("Malaysia GDP Per Capita 1985-2016",fontsize=20)


IndividualCountryData[IndividualCountryData['Country'] == 'Mexico'].plot.bar(x
='Year', y='GDP Per Capita', legend=False, ax=ax11,fontsize=14)
ax11.set_title("Mexico GDP Per Capita 1985-2016",fontsize=20)
ax11.set_xlabel("")

IndividualCountryData[IndividualCountryData['Country'] == 'Pakistan'].plot.bar
(x='Year', y='GDP Per Capita', legend=False, ax=ax12,fontsize=14)
ax12.set_title("Pakistan GDP Per Capita 1985-2016",fontsize=20)
ax12.set_xlabel("")

plt.tight_layout()
```

In [25]:
```python
import matplotlib.pyplot as plt
%matplotlib inline

fig, ((ax13, ax14), (ax15, ax16)) = plt.subplots(nrows=2, ncols=2,sharex=True,
figsize=(15,5))

IndividualCountryData[IndividualCountryData['Country'] == 'Peru'].plot.bar(x=
'Year', y='GDP Per Capita', legend=False, ax=ax13,fontsize=16)
ax13.set_title("Peru GDP Per Capita 1985-2016",fontsize=20)

IndividualCountryData[IndividualCountryData['Country'] == 'Phillippines'].plot
.bar(x='Year', y='GDP Per Capita', legend=False, ax=ax14,fontsize=16)
ax14.set_title("Phillippines GDP Per Capita 1985-2016",fontsize=20)

IndividualCountryData[IndividualCountryData['Country'] == 'Poland'].plot.bar(x
='Year', y='GDP Per Capita', legend=False, ax=ax15,fontsize=14)
ax15.set_title("Poland GDP Per Capita 1985-2016",fontsize=20)
ax15.set_xlabel("")

IndividualCountryData[IndividualCountryData['Country'] == 'Qatar'].plot.bar(x=
'Year', y='GDP Per Capita', legend=False, ax=ax16,fontsize=14)
ax16.set_title("Qatar GDP Per Capita 1985-2016",fontsize=20)
ax16.set_xlabel("")

plt.tight_layout()
```

In [26]:
```python
import matplotlib.pyplot as plt
%matplotlib inline

fig, ((ax17, ax18), (ax19, ax20)) = plt.subplots(nrows=2, ncols=2,sharex=True,
figsize=(15,5))

IndividualCountryData[IndividualCountryData['Country'] == 'Russia'].plot.bar(x
='Year', y='GDP Per Capita', legend=False, ax=ax17,fontsize=16)
ax17.set_title("Russia GDP Per Capita 1992-2016",fontsize=20)

IndividualCountryData[IndividualCountryData['Country'] == 'Saudi Arabia'].plot
.bar(x='Year', y='GDP Per Capita', legend=False, ax=ax18,fontsize=16)
ax18.set_title("Saudi Arabia GDP Per Capita 1985-2016",fontsize=20)

IndividualCountryData[IndividualCountryData['Country'] == 'South Africa'].plot
.bar(x='Year', y='GDP Per Capita', legend=False, ax=ax19,fontsize=14)
ax19.set_title("South Africa GDP Per Capita 1985-2016",fontsize=20)
ax19.set_xlabel("")

IndividualCountryData[IndividualCountryData['Country'] == 'Thailand'].plot.bar
(x='Year', y='GDP Per Capita', legend=False, ax=ax20,fontsize=14)
ax20.set_title("Thailand GDP Per Capita 1985-2016",fontsize=20)
ax20.set_xlabel("")

plt.tight_layout()
```
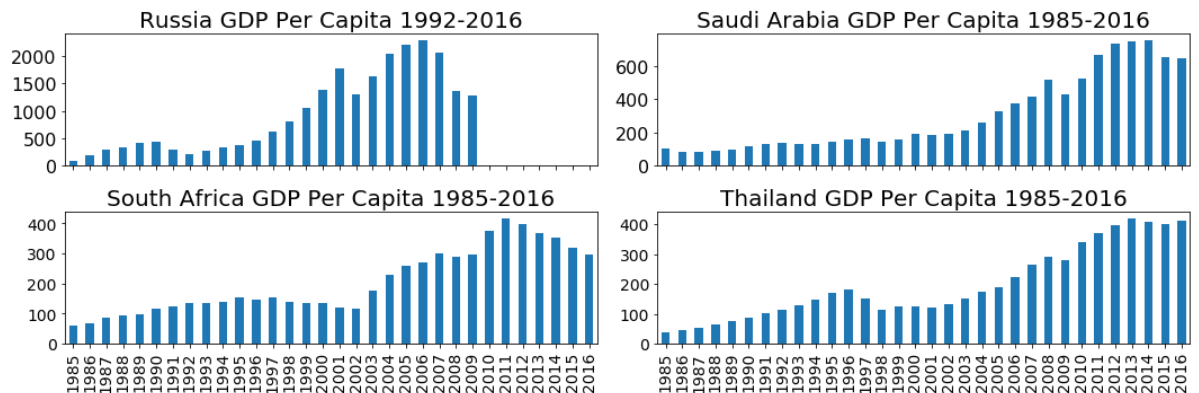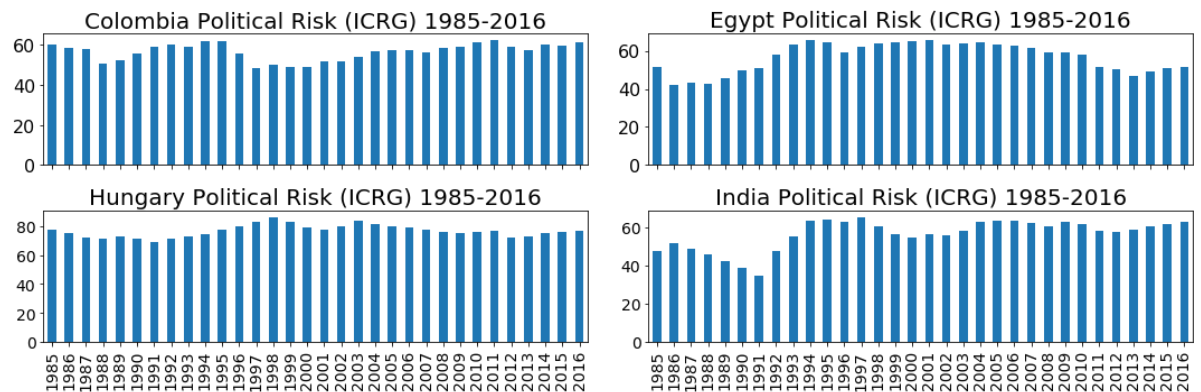
In [27]:
```python
fig, ((ax1, ax2), (ax3, ax4)) = plt.subplots(nrows=2, ncols=2,sharex=True,  fi
gsize=(15,5))

IndividualCountryData[IndividualCountryData['Country'] == 'Argentina'].plot.ba
r(x='Year', y='Political Risk', legend=False, ax=ax1,fontsize=15)
ax1.set_title("Argentina Political Risk (ICRG) 1985-2016", fontsize=20)

IndividualCountryData[IndividualCountryData['Country'] == 'Brazil'].plot.bar(x
='Year', y='Political Risk', legend=False, ax=ax2,fontsize=15)
ax2.set_title("Brazil Political Risk (ICRG) 1985-2016",fontsize=20)

IndividualCountryData[IndividualCountryData['Country'] == 'China'].plot.bar(x=
'Year', y='Political Risk', legend=False, ax=ax3,fontsize=14)
ax3.set_title("China Political Risk (ICRG) 1985-2016",fontsize=20)
ax3.set_xlabel("")

IndividualCountryData[IndividualCountryData['Country'] == 'Chile'].plot.bar(x=
'Year', y='Political Risk', legend=False, ax=ax4,fontsize=14)
ax4.set_title("Chile Political Risk (ICRG) 1985-2016",fontsize=20)
ax4.set_xlabel("")

plt.tight_layout()
```
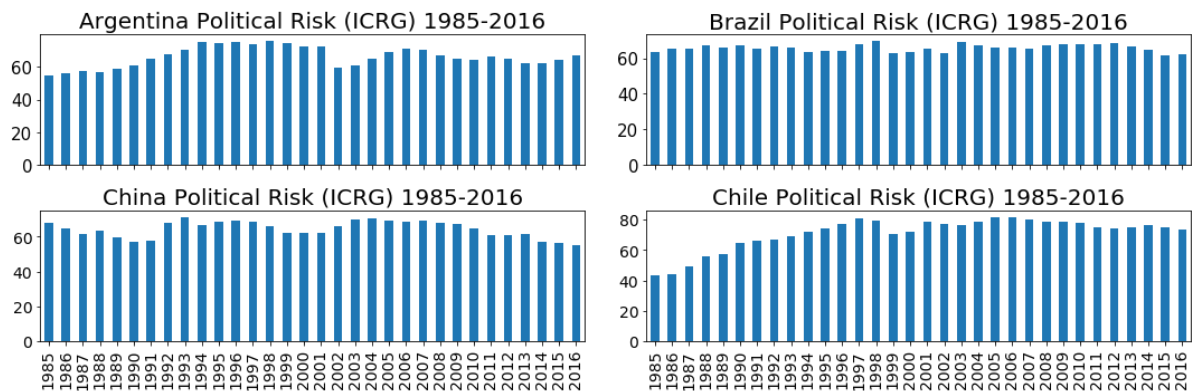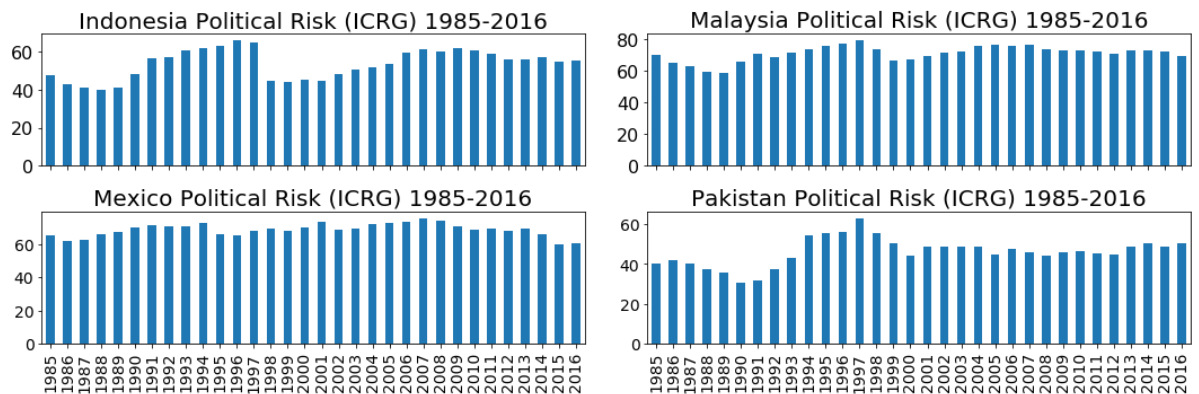
In [28]:
```python
fig, ((ax5, ax6), (ax7, ax8)) = plt.subplots(nrows=2, ncols=2,sharex=True,  fi
gsize=(15,5))

IndividualCountryData[IndividualCountryData['Country'] == 'Colombia'].plot.bar
(x='Year', y='Political Risk', legend=False, ax=ax5,fontsize=16)
ax5.set_title("Colombia Political Risk (ICRG) 1985-2016",fontsize=20)


IndividualCountryData[IndividualCountryData['Country'] == 'Egypt'].plot.bar(x=
'Year', y='Political Risk', legend=False, ax=ax6,fontsize=16)
ax6.set_title("Egypt Political Risk (ICRG) 1985-2016",fontsize=20)


IndividualCountryData[IndividualCountryData['Country'] == 'Hungary'].plot.bar(
x='Year', y='Political Risk', legend=False, ax=ax7,fontsize=14)
ax7.set_title("Hungary Political Risk (ICRG) 1985-2016",fontsize=20)
ax7.set_xlabel("")

IndividualCountryData[IndividualCountryData['Country'] == 'India'].plot.bar(x=
'Year', y='Political Risk', legend=False, ax=ax8,fontsize=14)
ax8.set_title("India Political Risk (ICRG) 1985-2016",fontsize=20)
ax8.set_xlabel("")

plt.tight_layout()
```
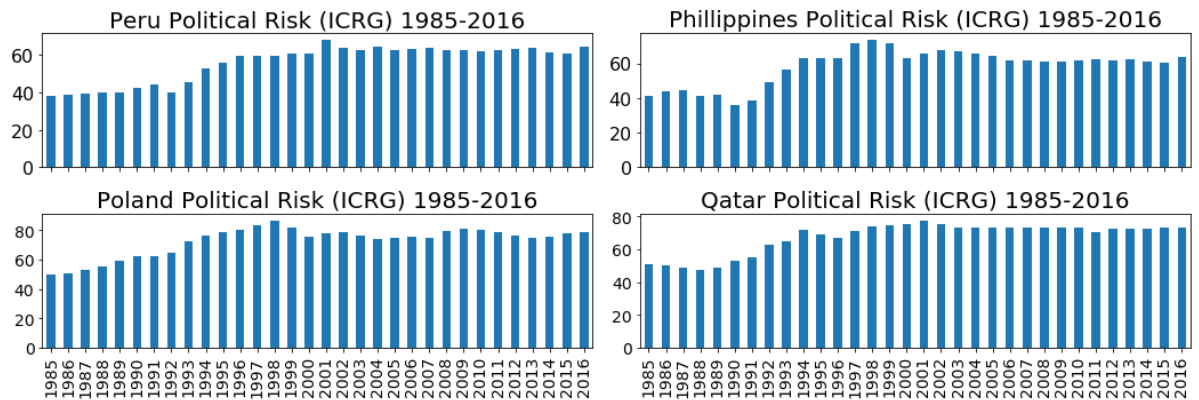
In [29]:
```python
fig, ((ax9, ax10), (ax11, ax12)) = plt.subplots(nrows=2, ncols=2,sharex=True,
figsize=(15,5))

IndividualCountryData[IndividualCountryData['Country'] == 'Indonesia'].plot.ba
r(x='Year', y='Political Risk', legend=False, ax=ax9,fontsize=16)
ax9.set_title("Indonesia Political Risk (ICRG) 1985-2016",fontsize=20)


IndividualCountryData[IndividualCountryData['Country'] == 'Malaysia'].plot.bar
(x='Year', y='Political Risk', legend=False, ax=ax10,fontsize=16)
ax10.set_title("Malaysia Political Risk (ICRG) 1985-2016",fontsize=20)


IndividualCountryData[IndividualCountryData['Country'] == 'Mexico'].plot.bar(x
='Year', y='Political Risk', legend=False, ax=ax11,fontsize=14)
ax11.set_title("Mexico Political Risk (ICRG) 1985-2016",fontsize=20)
ax11.set_xlabel("")

IndividualCountryData[IndividualCountryData['Country'] == 'Pakistan'].plot.bar
(x='Year', y='Political Risk', legend=False, ax=ax12,fontsize=14)
ax12.set_title("Pakistan Political Risk (ICRG) 1985-2016",fontsize=20)
ax12.set_xlabel("")

plt.tight_layout()
```
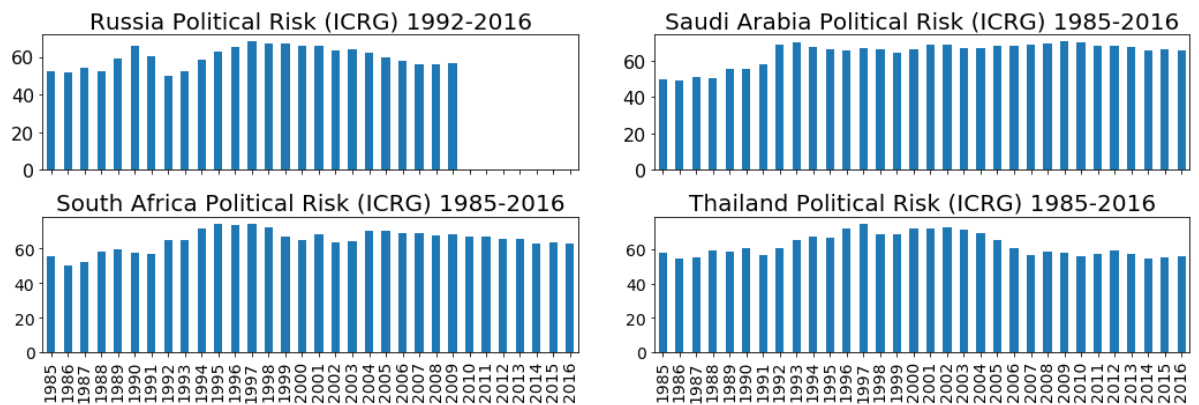
In [30]:
```python
fig, ((ax13, ax14), (ax15, ax16)) = plt.subplots(nrows=2, ncols=2,sharex=True,
figsize=(15,5))

IndividualCountryData[IndividualCountryData['Country'] == 'Peru'].plot.bar(x=
'Year', y='Political Risk', legend=False, ax=ax13,fontsize=16)
ax13.set_title("Peru Political Risk (ICRG) 1985-2016",fontsize=20)

IndividualCountryData[IndividualCountryData['Country'] == 'Phillippines'].plot
.bar(x='Year', y='Political Risk', legend=False, ax=ax14,fontsize=16)
ax14.set_title("Phillippines Political Risk (ICRG) 1985-2016",fontsize=20)

IndividualCountryData[IndividualCountryData['Country'] == 'Poland'].plot.bar(x
='Year', y='Political Risk', legend=False, ax=ax15,fontsize=14)
ax15.set_title("Poland Political Risk (ICRG) 1985-2016",fontsize=20)
ax15.set_xlabel("")

IndividualCountryData[IndividualCountryData['Country'] == 'Qatar'].plot.bar(x=
'Year', y='Political Risk', legend=False, ax=ax16,fontsize=14)
ax16.set_title("Qatar Political Risk (ICRG) 1985-2016",fontsize=20)
ax16.set_xlabel("")

plt.tight_layout()
```
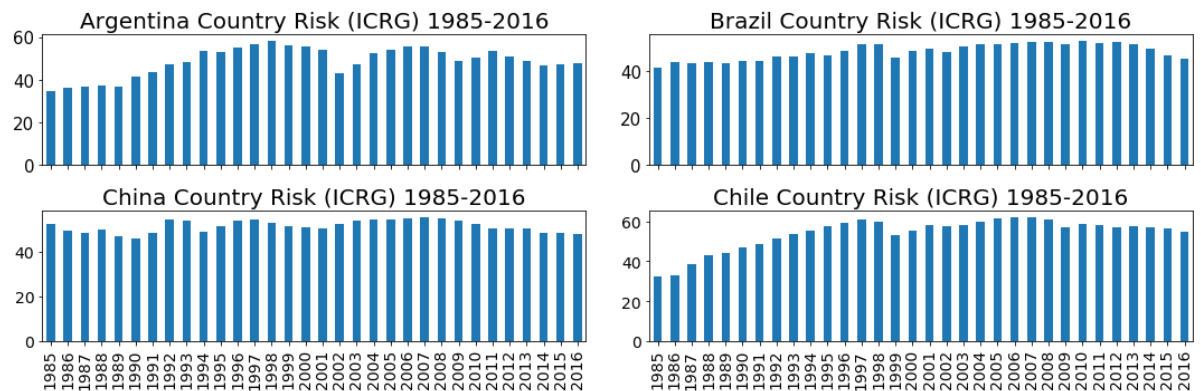
In [31]:
```python
fig, ((ax17, ax18), (ax19, ax20)) = plt.subplots(nrows=2, ncols=2,sharex=True,
figsize=(15,5))

IndividualCountryData[IndividualCountryData['Country'] == 'Russia'].plot.bar(x
='Year', y='Political Risk', legend=False, ax=ax17,fontsize=16)
ax17.set_title("Russia Political Risk (ICRG) 1992-2016",fontsize=20)

IndividualCountryData[IndividualCountryData['Country'] == 'Saudi Arabia'].plot
.bar(x='Year', y='Political Risk', legend=False, ax=ax18,fontsize=16)
ax18.set_title("Saudi Arabia Political Risk (ICRG) 1985-2016",fontsize=20)

IndividualCountryData[IndividualCountryData['Country'] == 'South Africa'].plot
.bar(x='Year', y='Political Risk', legend=False, ax=ax19,fontsize=14)
ax19.set_title("South Africa Political Risk (ICRG) 1985-2016",fontsize=20)
ax19.set_xlabel("")

IndividualCountryData[IndividualCountryData['Country'] == 'Thailand'].plot.bar
(x='Year', y='Political Risk', legend=False, ax=ax20,fontsize=14)
ax20.set_title("Thailand Political Risk (ICRG) 1985-2016",fontsize=20)
ax20.set_xlabel("")

plt.tight_layout()
```
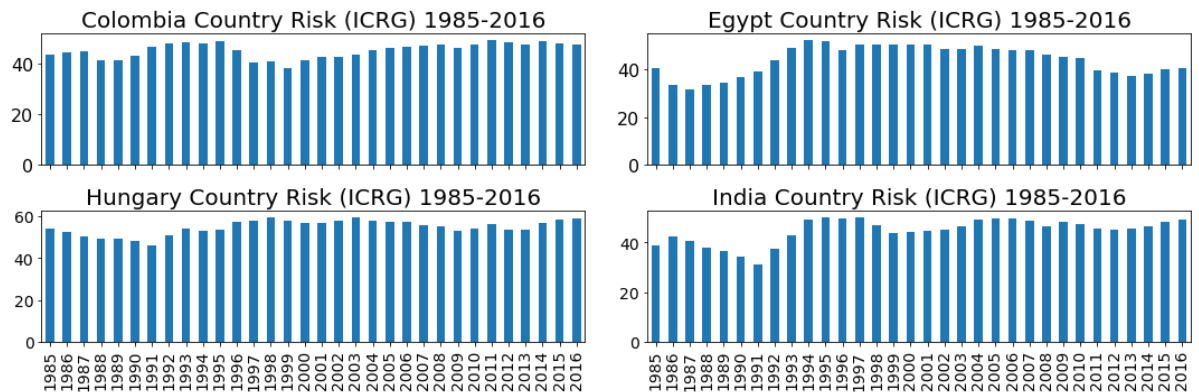
```python
In [32]: fig, ((ax1, ax2), (ax3, ax4)) = plt.subplots(nrows=2, ncols=2,sharex=True,  fi
         gsize=(15,5))

         IndividualCountryData[IndividualCountryData['Country'] == 'Argentina'].plot.ba
         r(x='Year', y='Country Risk', legend=False, ax=ax1,fontsize=15)
         ax1.set_title("Argentina Country Risk (ICRG) 1985-2016", fontsize=20)

         IndividualCountryData[IndividualCountryData['Country'] == 'Brazil'].plot.bar(x
         ='Year', y='Country Risk', legend=False, ax=ax2,fontsize=15)
         ax2.set_title("Brazil Country Risk (ICRG) 1985-2016",fontsize=20)

         IndividualCountryData[IndividualCountryData['Country'] == 'China'].plot.bar(x=
         'Year', y='Country Risk', legend=False, ax=ax3,fontsize=14)
         ax3.set_title("China Country Risk (ICRG) 1985-2016",fontsize=20)
         ax3.set_xlabel("")

         IndividualCountryData[IndividualCountryData['Country'] == 'Chile'].plot.bar(x=
         'Year', y='Country Risk', legend=False, ax=ax4,fontsize=14)
         ax4.set_title("Chile Country Risk (ICRG) 1985-2016",fontsize=20)
         ax4.set_xlabel("")

         plt.tight_layout()
```
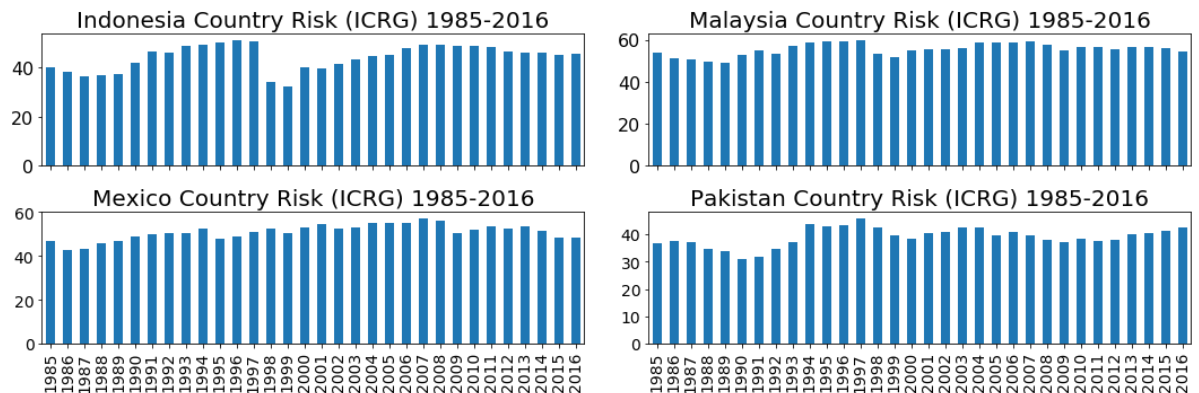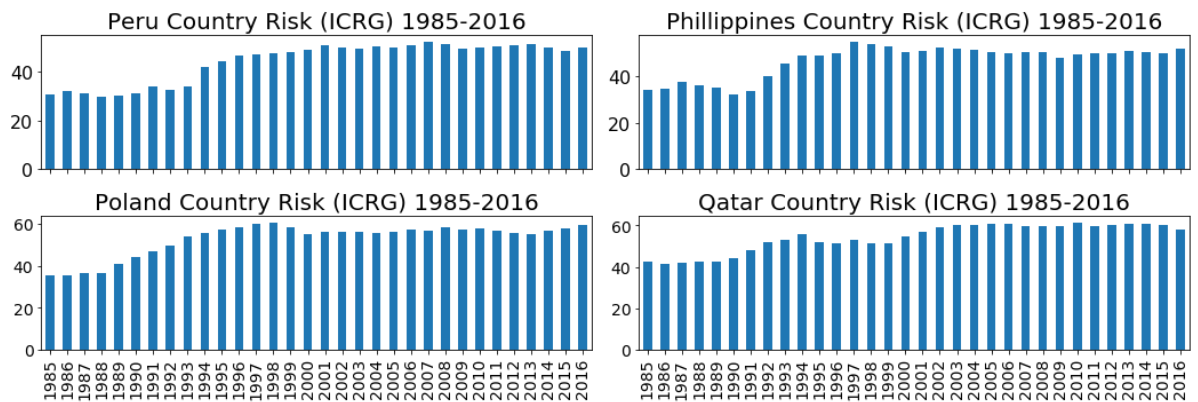
In [33]:
```python
fig, ((ax5, ax6), (ax7, ax8)) = plt.subplots(nrows=2, ncols=2,sharex=True,  fi
gsize=(15,5))

IndividualCountryData[IndividualCountryData['Country'] == 'Colombia'].plot.bar
(x='Year', y='Country Risk', legend=False, ax=ax5,fontsize=16)
ax5.set_title("Colombia Country Risk (ICRG) 1985-2016",fontsize=20)


IndividualCountryData[IndividualCountryData['Country'] == 'Egypt'].plot.bar(x=
'Year', y='Country Risk', legend=False, ax=ax6,fontsize=16)
ax6.set_title("Egypt Country Risk (ICRG) 1985-2016",fontsize=20)


IndividualCountryData[IndividualCountryData['Country'] == 'Hungary'].plot.bar(
x='Year', y='Country Risk', legend=False, ax=ax7,fontsize=14)
ax7.set_title("Hungary Country Risk (ICRG) 1985-2016",fontsize=20)
ax7.set_xlabel("")

IndividualCountryData[IndividualCountryData['Country'] == 'India'].plot.bar(x=
'Year', y='Country Risk', legend=False, ax=ax8,fontsize=14)
ax8.set_title("India Country Risk (ICRG) 1985-2016",fontsize=20)
ax8.set_xlabel("")

plt.tight_layout()
```
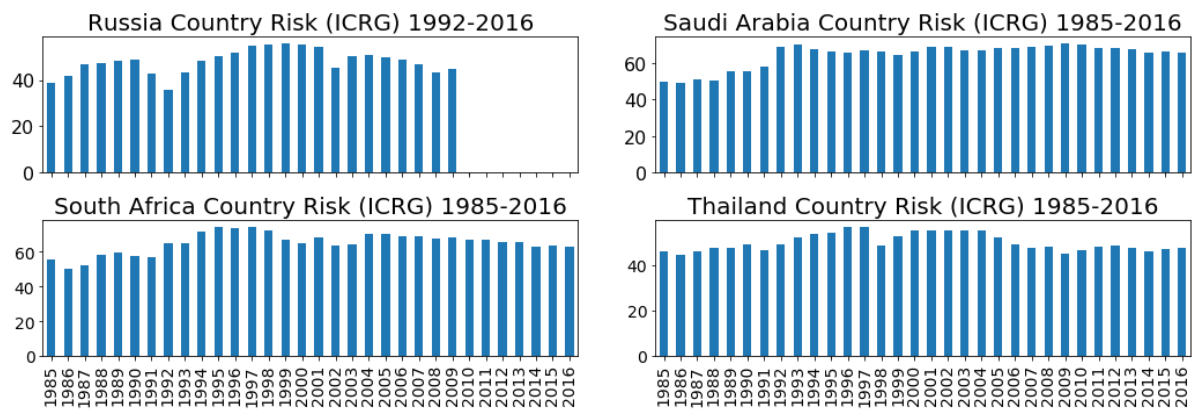
In [34]:

```python
fig, ((ax9, ax10), (ax11, ax12)) = plt.subplots(nrows=2, ncols=2,sharex=True,
figsize=(15,5))

IndividualCountryData[IndividualCountryData['Country'] == 'Indonesia'].plot.ba
r(x='Year', y='Country Risk', legend=False, ax=ax9,fontsize=16)
ax9.set_title("Indonesia Country Risk (ICRG) 1985-2016",fontsize=20)


IndividualCountryData[IndividualCountryData['Country'] == 'Malaysia'].plot.bar
(x='Year', y='Country Risk', legend=False, ax=ax10,fontsize=16)
ax10.set_title("Malaysia Country Risk (ICRG) 1985-2016",fontsize=20)


IndividualCountryData[IndividualCountryData['Country'] == 'Mexico'].plot.bar(x
='Year', y='Country Risk', legend=False, ax=ax11,fontsize=14)
ax11.set_title("Mexico Country Risk (ICRG) 1985-2016",fontsize=20)
ax11.set_xlabel("")

IndividualCountryData[IndividualCountryData['Country'] == 'Pakistan'].plot.bar
(x='Year', y='Country Risk', legend=False, ax=ax12,fontsize=14)
ax12.set_title("Pakistan Country Risk (ICRG) 1985-2016",fontsize=20)
ax12.set_xlabel("")

plt.tight_layout()
```
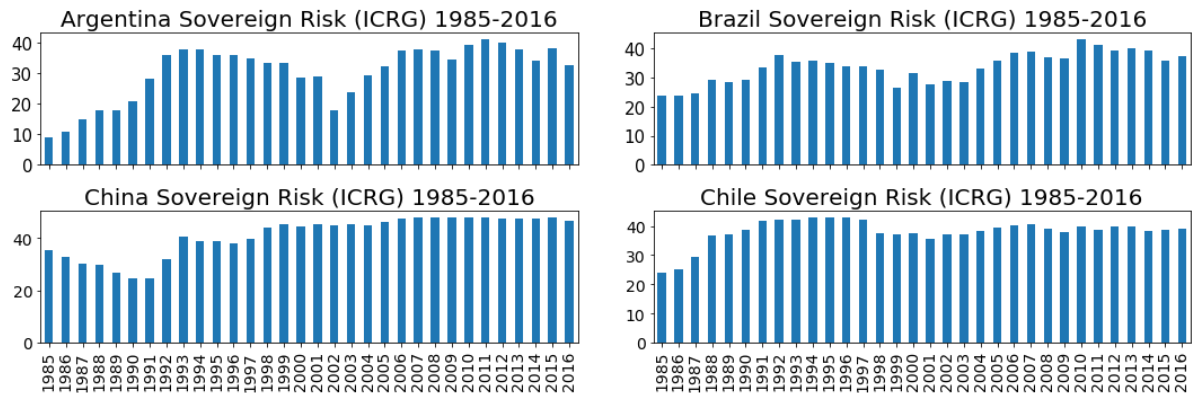
In [35]:

```python
fig, ((ax13, ax14), (ax15, ax16)) = plt.subplots(nrows=2, ncols=2,sharex=True,
figsize=(15,5))

IndividualCountryData[IndividualCountryData['Country'] == 'Peru'].plot.bar(x=
'Year', y='Country Risk', legend=False, ax=ax13,fontsize=16)
ax13.set_title("Peru Country Risk (ICRG) 1985-2016",fontsize=20)

IndividualCountryData[IndividualCountryData['Country'] == 'Phillippines'].plot
.bar(x='Year', y='Country Risk', legend=False, ax=ax14,fontsize=16)
ax14.set_title("Phillippines Country Risk (ICRG) 1985-2016",fontsize=20)

IndividualCountryData[IndividualCountryData['Country'] == 'Poland'].plot.bar(x
='Year', y='Country Risk', legend=False, ax=ax15,fontsize=14)
ax15.set_title("Poland Country Risk (ICRG) 1985-2016",fontsize=20)
ax15.set_xlabel("")

IndividualCountryData[IndividualCountryData['Country'] == 'Qatar'].plot.bar(x=
'Year', y='Country Risk', legend=False, ax=ax16,fontsize=14)
ax16.set_title("Qatar Country Risk (ICRG) 1985-2016",fontsize=20)
ax16.set_xlabel("")

plt.tight_layout()
```
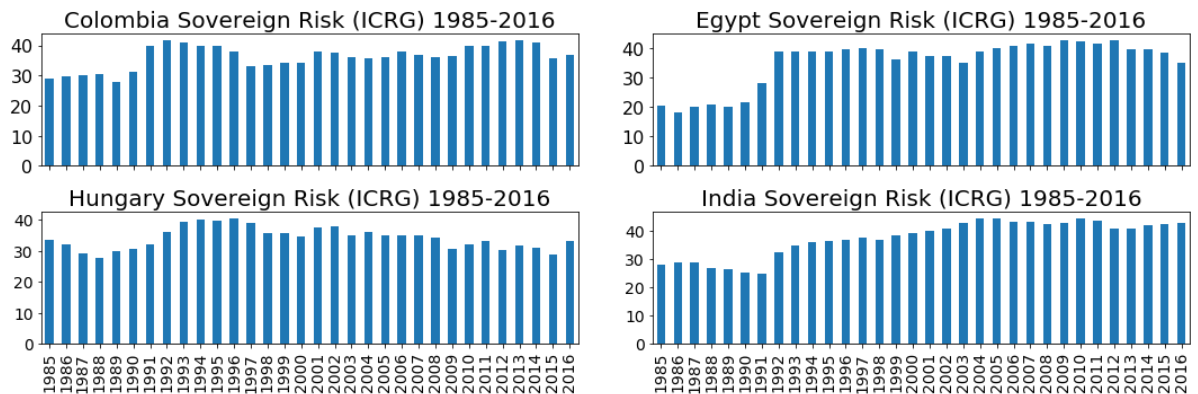
In [36]:
```python
fig, ((ax17, ax18), (ax19, ax20)) = plt.subplots(nrows=2, ncols=2,sharex=True,
figsize=(15,5))

IndividualCountryData[IndividualCountryData['Country'] == 'Russia'].plot.bar(x
='Year', y='Country Risk', legend=False, ax=ax17,fontsize=16)
ax17.set_title("Russia Country Risk (ICRG) 1992-2016",fontsize=20)

IndividualCountryData[IndividualCountryData['Country'] == 'Saudi Arabia'].plot
.bar(x='Year', y='Political Risk', legend=False, ax=ax18,fontsize=16)
ax18.set_title("Saudi Arabia Country Risk (ICRG) 1985-2016",fontsize=20)

IndividualCountryData[IndividualCountryData['Country'] == 'South Africa'].plot
.bar(x='Year', y='Political Risk', legend=False, ax=ax19,fontsize=14)
ax19.set_title("South Africa Country Risk (ICRG) 1985-2016",fontsize=20)
ax19.set_xlabel("")

IndividualCountryData[IndividualCountryData['Country'] == 'Thailand'].plot.bar
(x='Year', y='Country Risk', legend=False, ax=ax20,fontsize=14)
ax20.set_title("Thailand Country Risk (ICRG) 1985-2016",fontsize=20)
ax20.set_xlabel("")

plt.tight_layout()
```

In [37]:
```python
fig, ((ax1, ax2), (ax3, ax4)) = plt.subplots(nrows=2, ncols=2,sharex=True,  fi
gsize=(15,5))

IndividualCountryData[IndividualCountryData['Country'] == 'Argentina'].plot.ba
r(x='Year', y='Sovereign Risk', legend=False, ax=ax1,fontsize=15)
ax1.set_title("Argentina Sovereign Risk (ICRG) 1985-2016", fontsize=20)

IndividualCountryData[IndividualCountryData['Country'] == 'Brazil'].plot.bar(x
='Year', y='Sovereign Risk', legend=False, ax=ax2,fontsize=15)
ax2.set_title("Brazil Sovereign Risk (ICRG) 1985-2016",fontsize=20)

IndividualCountryData[IndividualCountryData['Country'] == 'China'].plot.bar(x=
'Year', y='Sovereign Risk', legend=False, ax=ax3,fontsize=14)
ax3.set_title("China Sovereign Risk (ICRG) 1985-2016",fontsize=20)
ax3.set_xlabel("")

IndividualCountryData[IndividualCountryData['Country'] == 'Chile'].plot.bar(x=
'Year', y='Sovereign Risk', legend=False, ax=ax4,fontsize=14)
ax4.set_title("Chile Sovereign Risk (ICRG) 1985-2016",fontsize=20)
ax4.set_xlabel("")

plt.tight_layout()
```
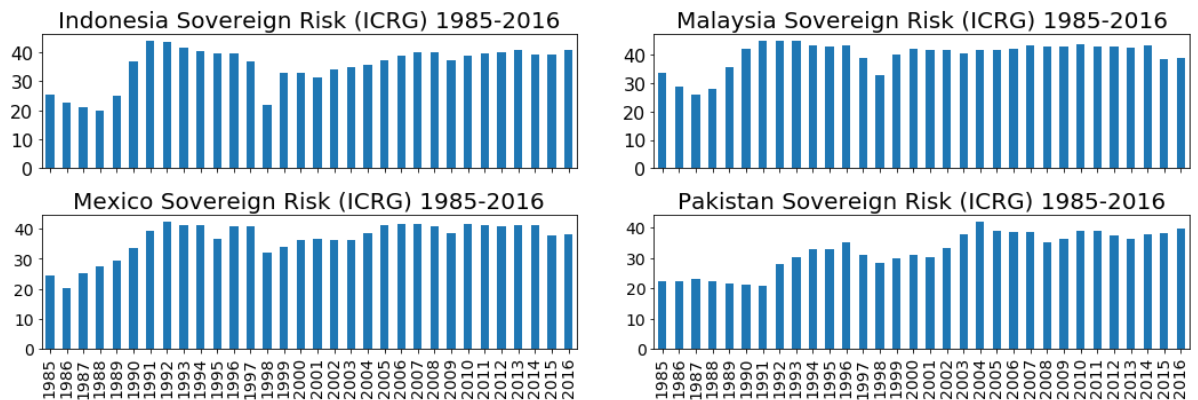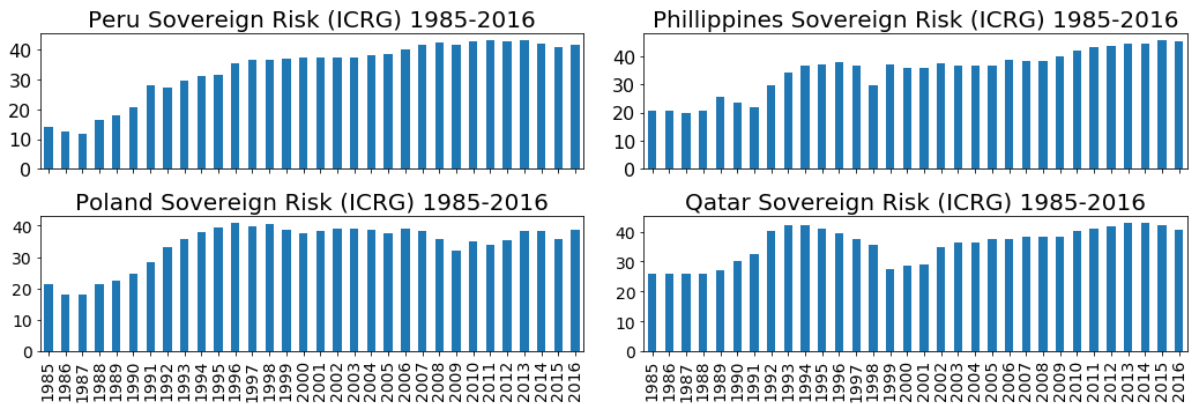
In [38]:
```python
fig, ((ax5, ax6), (ax7, ax8)) = plt.subplots(nrows=2, ncols=2,sharex=True,  fi
gsize=(15,5))

IndividualCountryData[IndividualCountryData['Country'] == 'Colombia'].plot.bar
(x='Year', y='Sovereign Risk', legend=False, ax=ax5,fontsize=16)
ax5.set_title("Colombia Sovereign Risk (ICRG) 1985-2016",fontsize=20)


IndividualCountryData[IndividualCountryData['Country'] == 'Egypt'].plot.bar(x=
'Year', y='Sovereign Risk', legend=False, ax=ax6,fontsize=16)
ax6.set_title("Egypt Sovereign Risk (ICRG) 1985-2016",fontsize=20)


IndividualCountryData[IndividualCountryData['Country'] == 'Hungary'].plot.bar(
x='Year', y='Sovereign Risk', legend=False, ax=ax7,fontsize=14)
ax7.set_title("Hungary Sovereign Risk (ICRG) 1985-2016",fontsize=20)
ax7.set_xlabel("")

IndividualCountryData[IndividualCountryData['Country'] == 'India'].plot.bar(x=
'Year', y='Sovereign Risk', legend=False, ax=ax8,fontsize=14)
ax8.set_title("India Sovereign Risk (ICRG) 1985-2016",fontsize=20)
ax8.set_xlabel("")

plt.tight_layout()
```
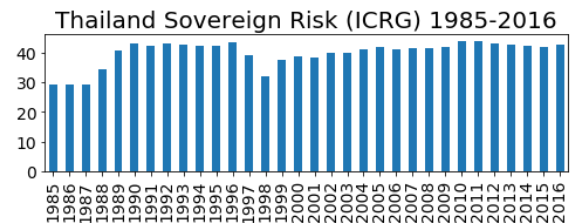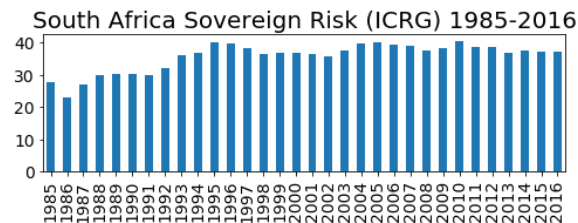
In [39]:
```python
fig, ((ax9, ax10), (ax11, ax12)) = plt.subplots(nrows=2, ncols=2,sharex=True,
figsize=(15,5))

IndividualCountryData[IndividualCountryData['Country'] == 'Indonesia'].plot.ba
r(x='Year', y='Sovereign Risk', legend=False, ax=ax9,fontsize=16)
ax9.set_title("Indonesia Sovereign Risk (ICRG) 1985-2016",fontsize=20)


IndividualCountryData[IndividualCountryData['Country'] == 'Malaysia'].plot.bar
(x='Year', y='Sovereign Risk', legend=False, ax=ax10,fontsize=16)
ax10.set_title("Malaysia Sovereign Risk (ICRG) 1985-2016",fontsize=20)


IndividualCountryData[IndividualCountryData['Country'] == 'Mexico'].plot.bar(x
='Year', y='Sovereign Risk', legend=False, ax=ax11,fontsize=14)
ax11.set_title("Mexico Sovereign Risk (ICRG) 1985-2016",fontsize=20)
ax11.set_xlabel("")

IndividualCountryData[IndividualCountryData['Country'] == 'Pakistan'].plot.bar
(x='Year', y='Sovereign Risk', legend=False, ax=ax12,fontsize=14)
ax12.set_title("Pakistan Sovereign Risk (ICRG) 1985-2016",fontsize=20)
ax12.set_xlabel("")

plt.tight_layout()
```
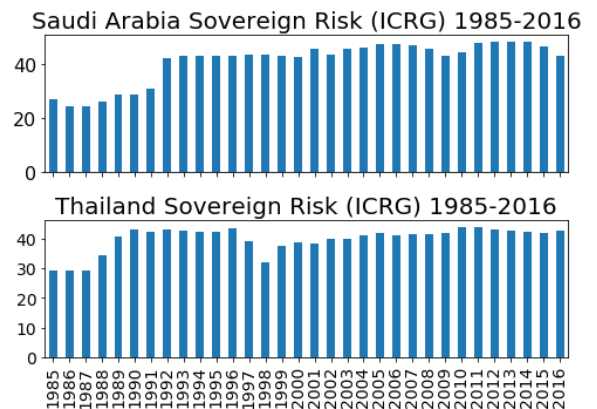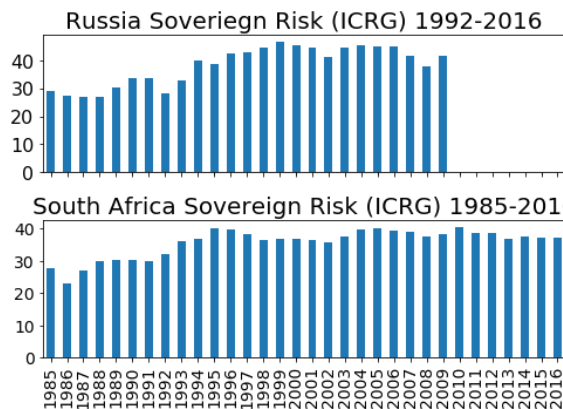
In [40]:
```python
fig, ((ax13, ax14), (ax15, ax16)) = plt.subplots(nrows=2, ncols=2,sharex=True,
figsize=(15,5))

IndividualCountryData[IndividualCountryData['Country'] == 'Peru'].plot.bar(x=
'Year', y='Sovereign Risk', legend=False, ax=ax13,fontsize=16)
ax13.set_title("Peru Sovereign Risk (ICRG) 1985-2016",fontsize=20)

IndividualCountryData[IndividualCountryData['Country'] == 'Phillippines'].plot
.bar(x='Year', y='Sovereign Risk', legend=False, ax=ax14,fontsize=16)
ax14.set_title("Phillippines Sovereign Risk (ICRG) 1985-2016",fontsize=20)

IndividualCountryData[IndividualCountryData['Country'] == 'Poland'].plot.bar(x
='Year', y='Sovereign Risk', legend=False, ax=ax15,fontsize=14)
ax15.set_title("Poland Sovereign Risk (ICRG) 1985-2016",fontsize=20)
ax15.set_xlabel("")

IndividualCountryData[IndividualCountryData['Country'] == 'Qatar'].plot.bar(x=
'Year', y='Sovereign Risk', legend=False, ax=ax16,fontsize=14)
ax16.set_title("Qatar Sovereign Risk (ICRG) 1985-2016",fontsize=20)
ax16.set_xlabel("")

plt.tight_layout()
```
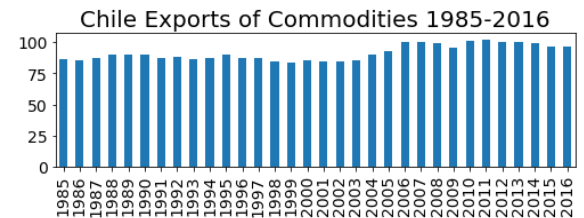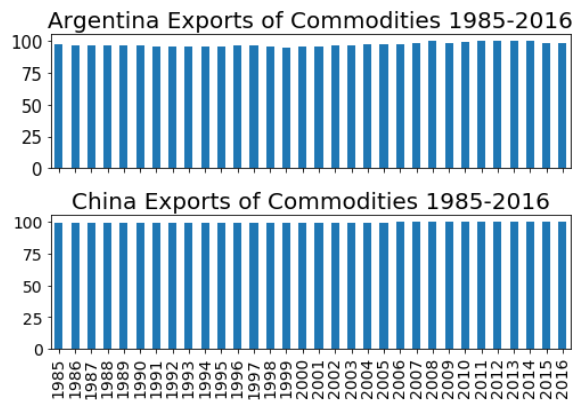
In [41]:

```python
fig, ((ax17, ax18), (ax19, ax20)) = plt.subplots(nrows=2, ncols=2,sharex=True,
figsize=(15,5))

IndividualCountryData[IndividualCountryData['Country'] == 'Russia'].plot.bar(x
='Year', y='Sovereign Risk', legend=False, ax=ax17,fontsize=16)
ax17.set_title("Russia Soveriegn Risk (ICRG) 1992-2016",fontsize=20)

IndividualCountryData[IndividualCountryData['Country'] == 'Saudi Arabia'].plot
.bar(x='Year', y='Sovereign Risk', legend=False, ax=ax18,fontsize=16)
ax18.set_title("Saudi Arabia Sovereign Risk (ICRG) 1985-2016",fontsize=20)

IndividualCountryData[IndividualCountryData['Country'] == 'South Africa'].plot
.bar(x='Year', y='Sovereign Risk', legend=False, ax=ax19,fontsize=14)
ax19.set_title("South Africa Sovereign Risk (ICRG) 1985-2016",fontsize=20)
ax19.set_xlabel("")

IndividualCountryData[IndividualCountryData['Country'] == 'Thailand'].plot.bar
(x='Year', y='Sovereign Risk', legend=False, ax=ax20,fontsize=14)
ax20.set_title("Thailand Sovereign Risk (ICRG) 1985-2016",fontsize=20)
ax20.set_xlabel("")

plt.tight_layout()
```

In [42]:
```python
fig, ((ax1, ax2), (ax3, ax4)) = plt.subplots(nrows=2, ncols=2,sharex=True,  fi
gsize=(15,5))

IndividualCountryData[IndividualCountryData['Country'] == 'Argentina'].plot.ba
r(x='Year', y='Exports of Commodities', legend=False, ax=ax1,fontsize=15)
ax1.set_title("Argentina Exports of Commodities 1985-2016", fontsize=20)

IndividualCountryData[IndividualCountryData['Country'] == 'Brazil'].plot.bar(x
='Year', y='Exports of Commodities', legend=False, ax=ax2,fontsize=15)
ax2.set_title("Brazil Exports of Commodities 1985-2016",fontsize=20)

IndividualCountryData[IndividualCountryData['Country'] == 'China'].plot.bar(x=
'Year', y='Exports of Commodities', legend=False, ax=ax3,fontsize=14)
ax3.set_title("China Exports of Commodities 1985-2016",fontsize=20)
ax3.set_xlabel("")

IndividualCountryData[IndividualCountryData['Country'] == 'Chile'].plot.bar(x=
'Year', y='Exports of Commodities', legend=False, ax=ax4,fontsize=14)
ax4.set_title("Chile Exports of Commodities 1985-2016",fontsize=20)
ax4.set_xlabel("")

plt.tight_layout()
```
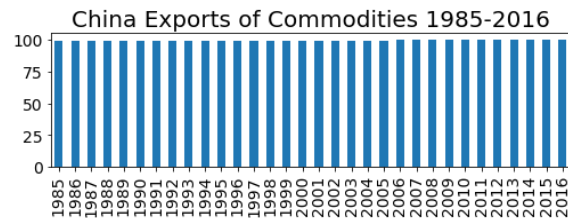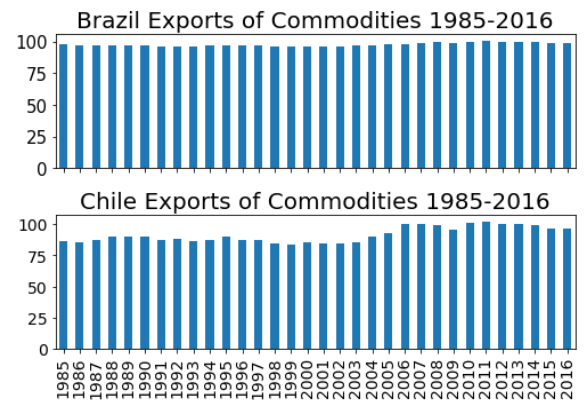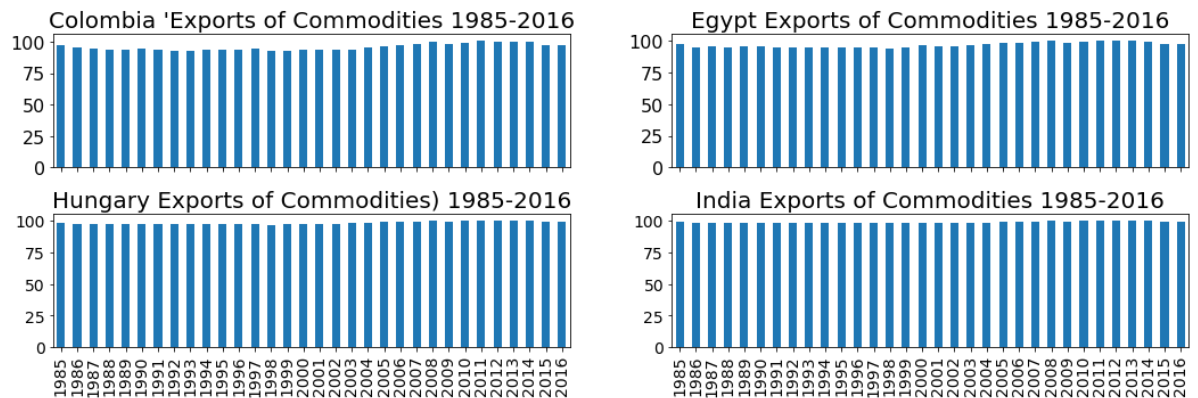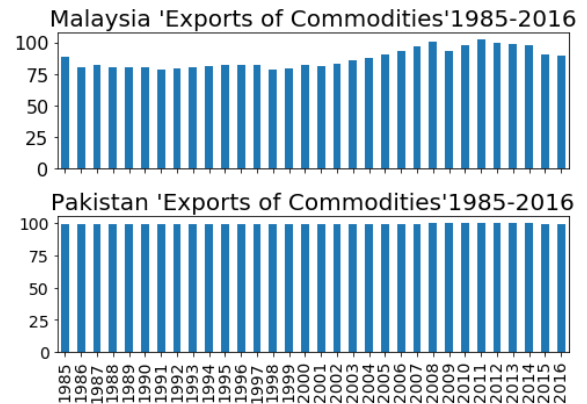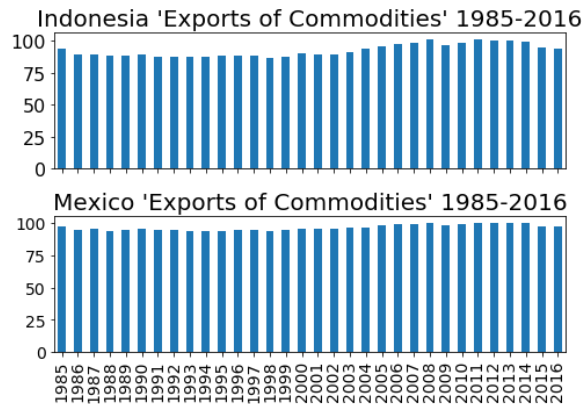
In [43]:
```python
fig, ((ax5, ax6), (ax7, ax8)) = plt.subplots(nrows=2, ncols=2,sharex=True,  fi
gsize=(15,5))

IndividualCountryData[IndividualCountryData['Country'] == 'Colombia'].plot.bar
(x='Year', y='Exports of Commodities', legend=False, ax=ax5,fontsize=16)
ax5.set_title("Colombia 'Exports of Commodities 1985-2016",fontsize=20)


IndividualCountryData[IndividualCountryData['Country'] == 'Egypt'].plot.bar(x=
'Year', y='Exports of Commodities', legend=False, ax=ax6,fontsize=16)
ax6.set_title("Egypt Exports of Commodities 1985-2016",fontsize=20)


IndividualCountryData[IndividualCountryData['Country'] == 'Hungary'].plot.bar(
x='Year', y='Exports of Commodities', legend=False, ax=ax7,fontsize=14)
ax7.set_title("Hungary Exports of Commodities) 1985-2016",fontsize=20)
ax7.set_xlabel("")

IndividualCountryData[IndividualCountryData['Country'] == 'India'].plot.bar(x=
'Year', y='Exports of Commodities', legend=False, ax=ax8,fontsize=14)
ax8.set_title("India Exports of Commodities 1985-2016",fontsize=20)
ax8.set_xlabel("")

plt.tight_layout()
```
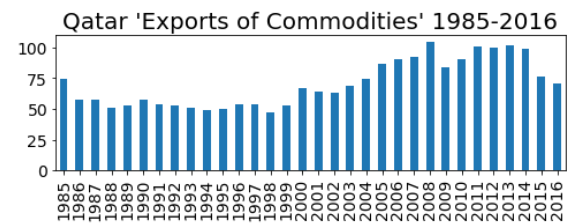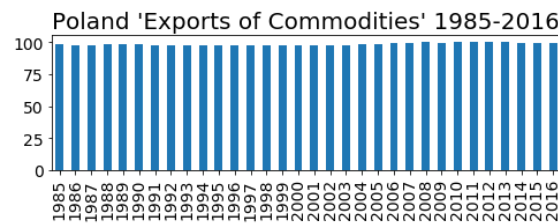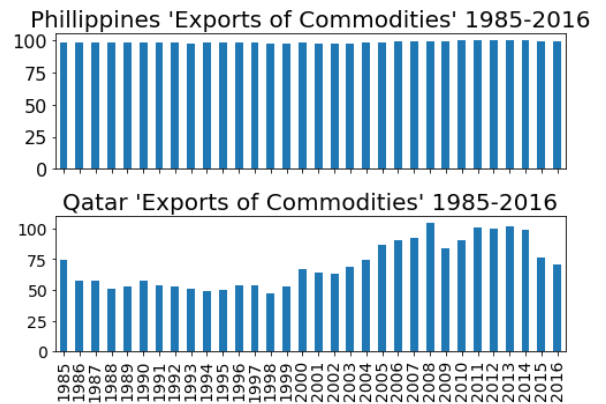
In [44]:
```python
fig, ((ax9, ax10), (ax11, ax12)) = plt.subplots(nrows=2, ncols=2,sharex=True,
figsize=(15,5))

IndividualCountryData[IndividualCountryData['Country'] == 'Indonesia'].plot.ba
r(x='Year', y='Exports of Commodities', legend=False, ax=ax9,fontsize=16)
ax9.set_title("Indonesia 'Exports of Commodities' 1985-2016",fontsize=20)


IndividualCountryData[IndividualCountryData['Country'] == 'Malaysia'].plot.bar
(x='Year', y='Exports of Commodities', legend=False, ax=ax10,fontsize=16)
ax10.set_title("Malaysia 'Exports of Commodities'1985-2016",fontsize=20)


IndividualCountryData[IndividualCountryData['Country'] == 'Mexico'].plot.bar(x
='Year', y='Exports of Commodities', legend=False, ax=ax11,fontsize=14)
ax11.set_title("Mexico 'Exports of Commodities' 1985-2016",fontsize=20)
ax11.set_xlabel("")

IndividualCountryData[IndividualCountryData['Country'] == 'Pakistan'].plot.bar
(x='Year', y='Exports of Commodities', legend=False, ax=ax12,fontsize=14)
ax12.set_title("Pakistan 'Exports of Commodities'1985-2016",fontsize=20)
ax12.set_xlabel("")

plt.tight_layout()
```
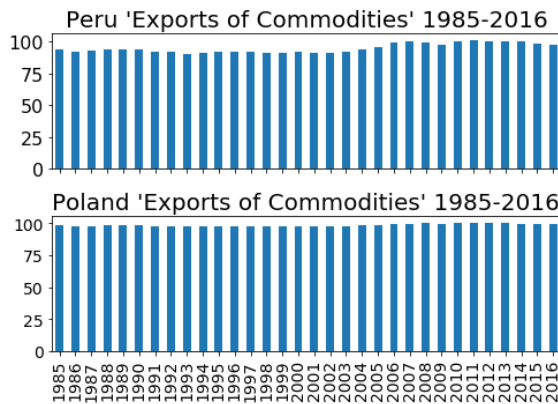
In [45]:
```python
fig, ((ax13, ax14), (ax15, ax16)) = plt.subplots(nrows=2, ncols=2,sharex=True,
figsize=(15,5))

IndividualCountryData[IndividualCountryData['Country'] == 'Peru'].plot.bar(x=
'Year', y='Exports of Commodities', legend=False, ax=ax13,fontsize=16)
ax13.set_title("Peru 'Exports of Commodities' 1985-2016",fontsize=20)

IndividualCountryData[IndividualCountryData['Country'] == 'Phillippines'].plot
.bar(x='Year', y='Exports of Commodities', legend=False, ax=ax14,fontsize=16)
ax14.set_title("Phillippines 'Exports of Commodities' 1985-2016",fontsize=20)

IndividualCountryData[IndividualCountryData['Country'] == 'Poland'].plot.bar(x
='Year', y='Exports of Commodities', legend=False, ax=ax15,fontsize=14)
ax15.set_title("Poland 'Exports of Commodities' 1985-2016",fontsize=20)
ax15.set_xlabel("")

IndividualCountryData[IndividualCountryData['Country'] == 'Qatar'].plot.bar(x=
'Year', y='Exports of Commodities', legend=False, ax=ax16,fontsize=14)
ax16.set_title("Qatar 'Exports of Commodities' 1985-2016",fontsize=20)
ax16.set_xlabel("")

plt.tight_layout()
```
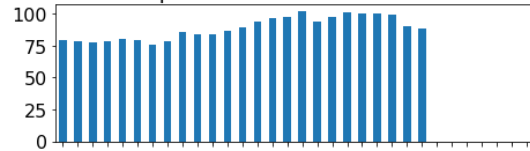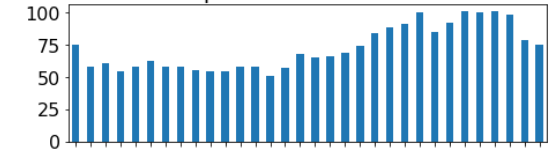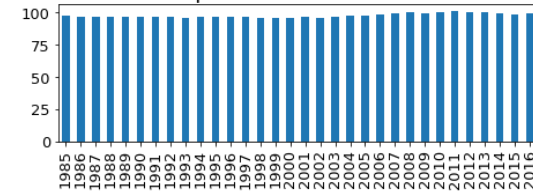
In [46]:

```python
fig, ((ax17, ax18), (ax19, ax20)) = plt.subplots(nrows=2, ncols=2,sharex=True,
figsize=(15,5))

IndividualCountryData[IndividualCountryData['Country'] == 'Russia'].plot.bar(x
='Year', y='Exports of Commodities', legend=False, ax=ax17,fontsize=16)
ax17.set_title("Russia 'Exports of Commodities' 1992-2016",fontsize=20)

IndividualCountryData[IndividualCountryData['Country'] == 'Saudi Arabia'].plot
.bar(x='Year', y='Exports of Commodities', legend=False, ax=ax18,fontsize=16)
ax18.set_title("Saudi Arabia 'Exports of Commodities'  1985-2016",fontsize=20)

IndividualCountryData[IndividualCountryData['Country'] == 'South Africa'].plot
.bar(x='Year', y='Exports of Commodities', legend=False, ax=ax19,fontsize=13)
ax19.set_title("South Africa 'Exports of Commodities' 1985-2016",fontsize=20)
ax19.set_xlabel("")

IndividualCountryData[IndividualCountryData['Country'] == 'Thailand'].plot.bar
(x='Year', y='Exports of Commodities', legend=False, ax=ax20,fontsize=13)
ax20.set_title("Thailand 'Exports of Commodities' 1985-2016",fontsize=20)
ax20.set_xlabel("")

plt.tight_layout()
```
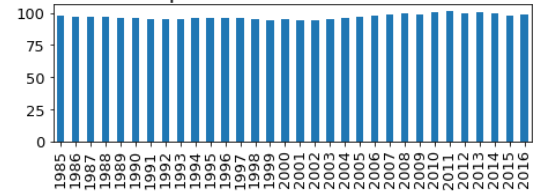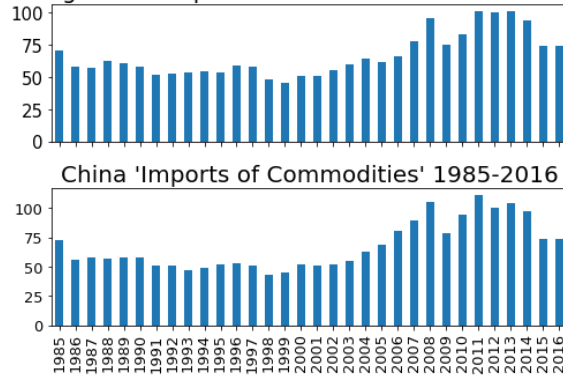
In [47]:
```python
fig, ((ax1, ax2), (ax3, ax4)) = plt.subplots(nrows=2, ncols=2,sharex=True,  fi
gsize=(15,5))

IndividualCountryData[IndividualCountryData['Country'] == 'Argentina'].plot.ba
r(x='Year', y='Imports of Commodities', legend=False, ax=ax1,fontsize=15)
ax1.set_title("Argentina 'Imports of Commodities' 1985-2016", fontsize=20)

IndividualCountryData[IndividualCountryData['Country'] == 'Brazil'].plot.bar(x
='Year', y='Imports of Commodities', legend=False, ax=ax2,fontsize=15)
ax2.set_title("Brazil 'Imports of Commodities' 1985-2016",fontsize=20)

IndividualCountryData[IndividualCountryData['Country'] == 'China'].plot.bar(x=
'Year', y='Imports of Commodities', legend=False, ax=ax3,fontsize=13)
ax3.set_title("China 'Imports of Commodities' 1985-2016",fontsize=20)
ax3.set_xlabel("")

IndividualCountryData[IndividualCountryData['Country'] == 'Chile'].plot.bar(x=
'Year', y='Imports of Commodities', legend=False, ax=ax4,fontsize=13)
ax4.set_title("Chile 'Imports of Commodities' 1985-2016",fontsize=20)
ax4.set_xlabel("")

plt.tight_layout()
```
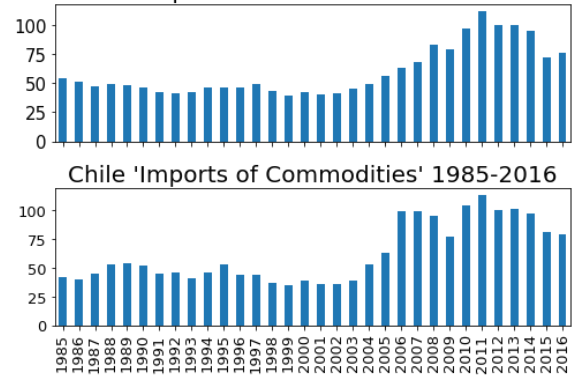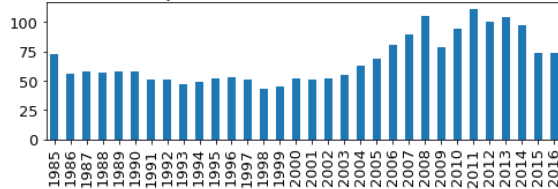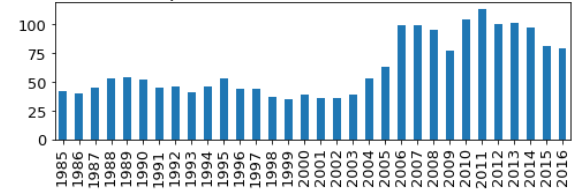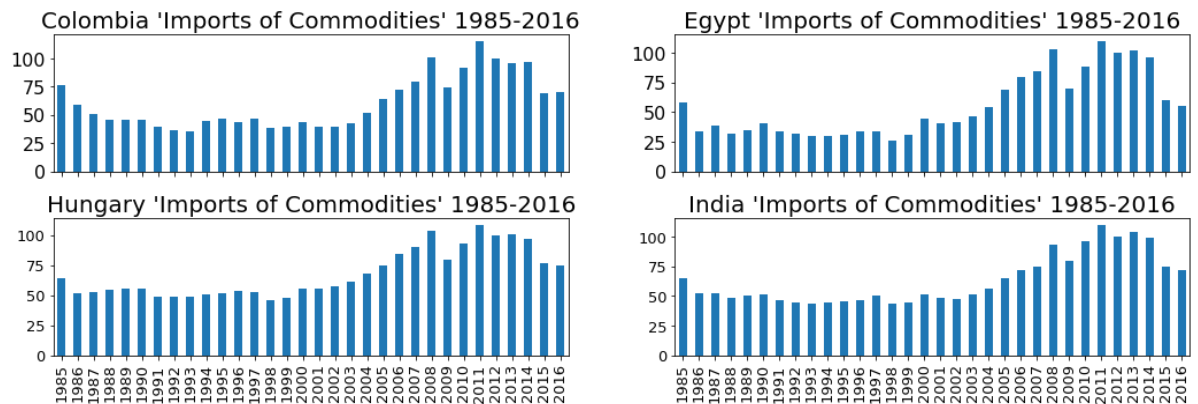
In [48]:
```python
fig, ((ax5, ax6), (ax7, ax8)) = plt.subplots(nrows=2, ncols=2,sharex=True,  fi
gsize=(15,5))

IndividualCountryData[IndividualCountryData['Country'] == 'Colombia'].plot.bar
(x='Year', y='Imports of Commodities', legend=False, ax=ax5,fontsize=16)
ax5.set_title("Colombia 'Imports of Commodities' 1985-2016",fontsize=20)


IndividualCountryData[IndividualCountryData['Country'] == 'Egypt'].plot.bar(x=
'Year', y='Imports of Commodities', legend=False, ax=ax6,fontsize=16)
ax6.set_title("Egypt 'Imports of Commodities' 1985-2016",fontsize=20)


IndividualCountryData[IndividualCountryData['Country'] == 'Hungary'].plot.bar(
x='Year', y='Imports of Commodities', legend=False, ax=ax7,fontsize=13)
ax7.set_title("Hungary 'Imports of Commodities' 1985-2016",fontsize=20)
ax7.set_xlabel("")

IndividualCountryData[IndividualCountryData['Country'] == 'India'].plot.bar(x=
'Year', y='Imports of Commodities', legend=False, ax=ax8,fontsize=13)
ax8.set_title("India 'Imports of Commodities' 1985-2016",fontsize=20)
ax8.set_xlabel("")

plt.tight_layout()
```
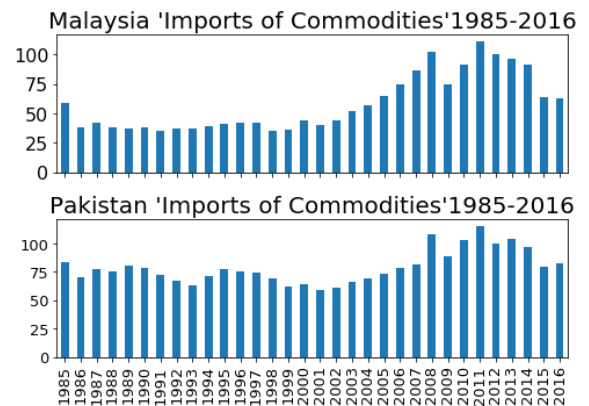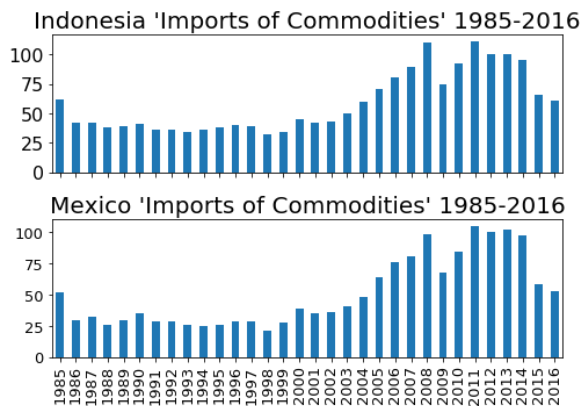
In [49]:
```python
fig, ((ax9, ax10), (ax11, ax12)) = plt.subplots(nrows=2, ncols=2,sharex=True,
figsize=(15,5))

IndividualCountryData[IndividualCountryData['Country'] == 'Indonesia'].plot.ba
r(x='Year', y='Imports of Commodities', legend=False, ax=ax9,fontsize=16)
ax9.set_title("Indonesia 'Imports of Commodities' 1985-2016",fontsize=20)


IndividualCountryData[IndividualCountryData['Country'] == 'Malaysia'].plot.bar
(x='Year', y='Imports of Commodities', legend=False, ax=ax10,fontsize=16)
ax10.set_title("Malaysia 'Imports of Commodities'1985-2016",fontsize=20)


IndividualCountryData[IndividualCountryData['Country'] == 'Mexico'].plot.bar(x
='Year', y='Imports of Commodities', legend=False, ax=ax11,fontsize=13)
ax11.set_title("Mexico 'Imports of Commodities' 1985-2016",fontsize=20)
ax11.set_xlabel("")

IndividualCountryData[IndividualCountryData['Country'] == 'Pakistan'].plot.bar
(x='Year', y='Imports of Commodities', legend=False, ax=ax12,fontsize=13)
ax12.set_title("Pakistan 'Imports of Commodities'1985-2016",fontsize=20)
ax12.set_xlabel("")

plt.tight_layout()
```

In [50]:
```python
fig, ((ax13, ax14), (ax15, ax16)) = plt.subplots(nrows=2, ncols=2,sharex=True,
figsize=(15,5))

IndividualCountryData[IndividualCountryData['Country'] == 'Peru'].plot.bar(x=
'Year', y='Imports of Commodities', legend=False, ax=ax13,fontsize=16)
ax13.set_title("Peru 'Imports of Commodities' 1985-2016",fontsize=20)

IndividualCountryData[IndividualCountryData['Country'] == 'Phillippines'].plot
.bar(x='Year', y='Imports of Commodities', legend=False, ax=ax14,fontsize=16)
ax14.set_title("Phillippines 'Imports of Commodities' 1985-2016",fontsize=20)

IndividualCountryData[IndividualCountryData['Country'] == 'Poland'].plot.bar(x
='Year', y='Exports of Commodities', legend=False, ax=ax15,fontsize=13)
ax15.set_title("Poland 'Imports of Commodities' 1985-2016",fontsize=20)
ax15.set_xlabel("")

IndividualCountryData[IndividualCountryData['Country'] == 'Qatar'].plot.bar(x=
'Year', y='Imports of Commodities', legend=False, ax=ax16,fontsize=13)
ax16.set_title("Qatar 'Imports of Commodities' 1985-2016",fontsize=20)
ax16.set_xlabel("")

plt.tight_layout()
```
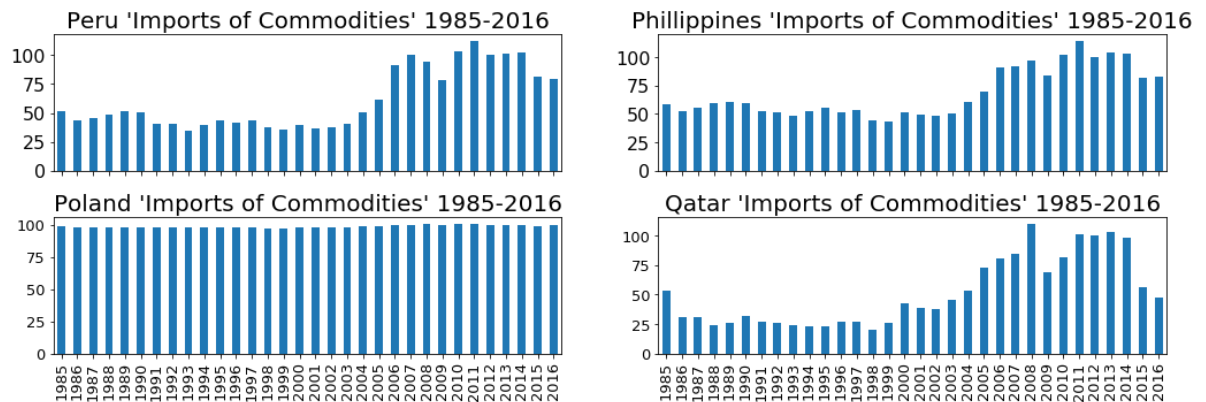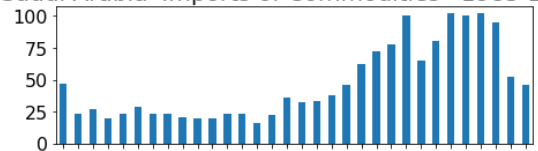
In [51]:
```python
fig, ((ax17, ax18), (ax19, ax20)) = plt.subplots(nrows=2, ncols=2,sharex=True,
figsize=(15,5))

IndividualCountryData[IndividualCountryData['Country'] == 'Russia'].plot.bar(x
='Year', y='Imports of Commodities', legend=False, ax=ax17,fontsize=16)
ax17.set_title("Russia 'Imports of Commodities' 1992-2016",fontsize=20)

IndividualCountryData[IndividualCountryData['Country'] == 'Saudi Arabia'].plot
.bar(x='Year', y='Imports of Commodities', legend=False, ax=ax18,fontsize=16)
ax18.set_title("Saudi Arabia 'Imports of Commodities'  1985-2016",fontsize=20)

IndividualCountryData[IndividualCountryData['Country'] == 'South Africa'].plot
.bar(x='Year', y='Imports of Commodities', legend=False, ax=ax19,fontsize=13)
ax19.set_title("South Africa 'Imports of Commodities' 1985-2016",fontsize=20)
ax19.set_xlabel("")

IndividualCountryData[IndividualCountryData['Country'] == 'Thailand'].plot.bar
(x='Year', y='Imports of Commodities', legend=False, ax=ax20,fontsize=13)
ax20.set_title("Thailand 'Imports of Commodities' 1985-2016",fontsize=20)
ax20.set_xlabel("")

plt.tight_layout()
```