

```
!git pull
```

```
From https://github.com/CSSEGISandData/COVID-19
 6af1fed7..817c2bd1 master    -> origin/master
 8e4c0334..f3bbc679 web-data  -> origin/web-data
Updating 6af1fed7..817c2bd1
Fast-forward
 csse_covid_19_data/README.md          | 24 +
 csse_covid_19_data/UID_ISO_FIPS_LookUp_Table.csv | 792 +--
 .../csse_covid_19_daily_reports/04-03-2020.csv | 2626 +++++++
 .../time_series_covid19_confirmed_US.csv | 6508 ++++++++-----
 .../time_series_covid19_confirmed_global.csv | 518 +-
 .../time_series_covid19_deaths_US.csv | 6508 ++++++++-----
 .../time_series_covid19_deaths_global.csv | 518 +-
 .../time_series_covid19_recovered_global.csv | 490 +-
 8 files changed, 10318 insertions(+), 7666 deletions(-)
 create mode 100644 csse_covid_19_data/csse_covid_19_daily_reports/04-03-2020.csv
```

```
RAW=struct();
RAW.Confirmed = import_git('time_series_covid19_confirmed_global.csv');
```

Warning: Column headers from the file were modified to make them valid MATLAB identifiers before creating variable names for the table. The original column headers are saved in the VariableDescriptions property. Set 'PreserveVariableNames' to true to use the original column headers as table variable names.

```
RAW.Deaths = import_git('time_series_covid19_deaths_global.csv');
```

Warning: Column headers from the file were modified to make them valid MATLAB identifiers before creating variable names for the table. The original column headers are saved in the VariableDescriptions property. Set 'PreserveVariableNames' to true to use the original column headers as table variable names.

```
RAW.Recovered = import_git('time_series_covid19_recovered_global.csv');
```

Warning: Column headers from the file were modified to make them valid MATLAB identifiers before creating variable names for the table. The original column headers are saved in the VariableDescriptions property. Set 'PreserveVariableNames' to true to use the original column headers as table variable names.

```
Categories=fieldnames(RAW);
```

```
StartDate = datetime(2020,01,22)
```

```
StartDate = datetime
22-Jan-2020
```

```
EndDate = StartDate+days(size(RAW.(Categories{1}),2)-5)
```

```
EndDate = datetime
03-Apr-2020 00:00:00
```

```
Selected_Countries=categorical({'US','United Kingdom','Germany','Switzerland','Canada','France',
'Singapore','Australia','India','Mauritius',...
'Saudi Arabia','Korea, South','Italy'});
```

```
gradient_span=5; %days
```

```
CountrywiseData=struct();
```

```
for category_count=1:size(Categories,1)
```

```
    plot_titles=cell(size(Selected_Countries,2),1);
```

```
    for country_count=1:size(Selected_Countries,2)
```

```
        RAW.(Categories{category_count}).Country_Region=categorical(RAW.(Categories{category_count}).Country_Region);
```

```
        Idn=RAW.(Categories{category_count}).Country_Region==Selected_Countries(country_count);
```

```
        temp=RAW.(Categories{category_count}){Idn,(5:end)};
```

```
        CountrywiseData.(Categories{category_count})(country_count,:)=sum(temp,1);
```

```
        plot_titles{country_count,1}=[char(Categories{category_count}), '_ ', char(Selected_Countries(country_count))];
```

```
    end
```

```
    fig_title=char(Categories{category_count});
```

```
    SimpleScatter(StartDate, CountrywiseData.(Categories{category_count}), fig_title, plot_titles, 'b');
```

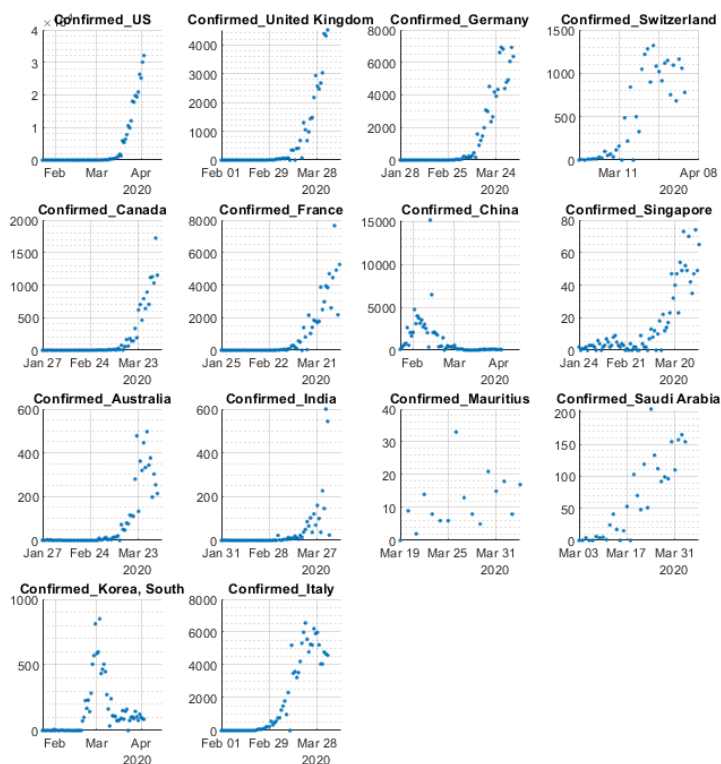
```
end
```

Starting parallel pool (parpool) using the 'local' profile ...

Connected to the parallel pool (number of workers: 8).

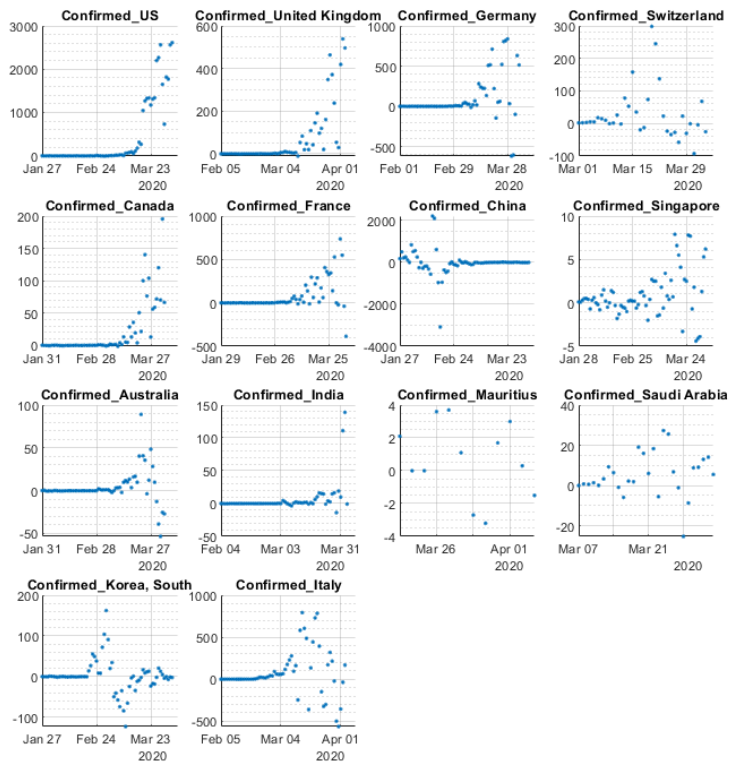
```
ans =
```

```
'DailyIncrease_Confirmed'
```

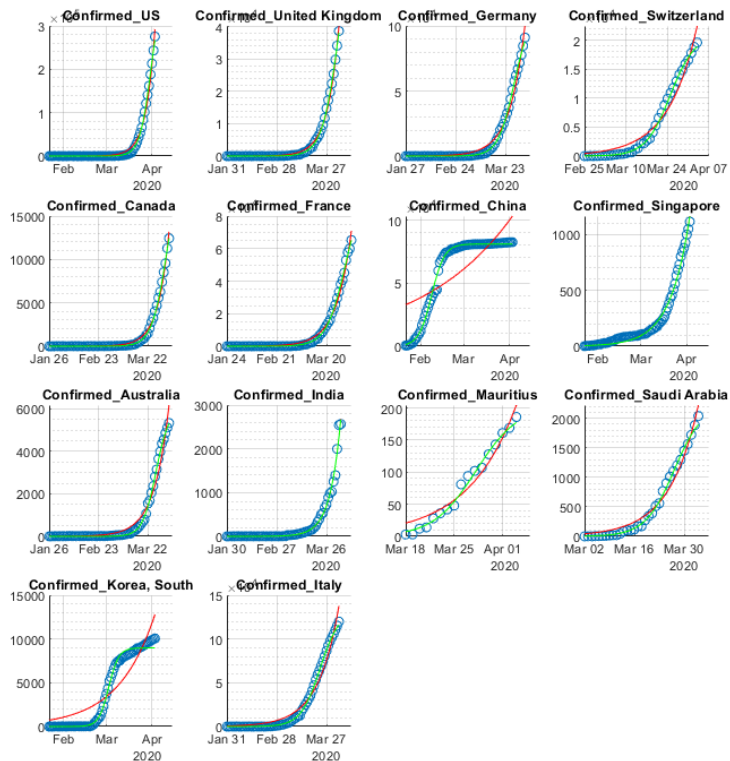


```
ans =
```

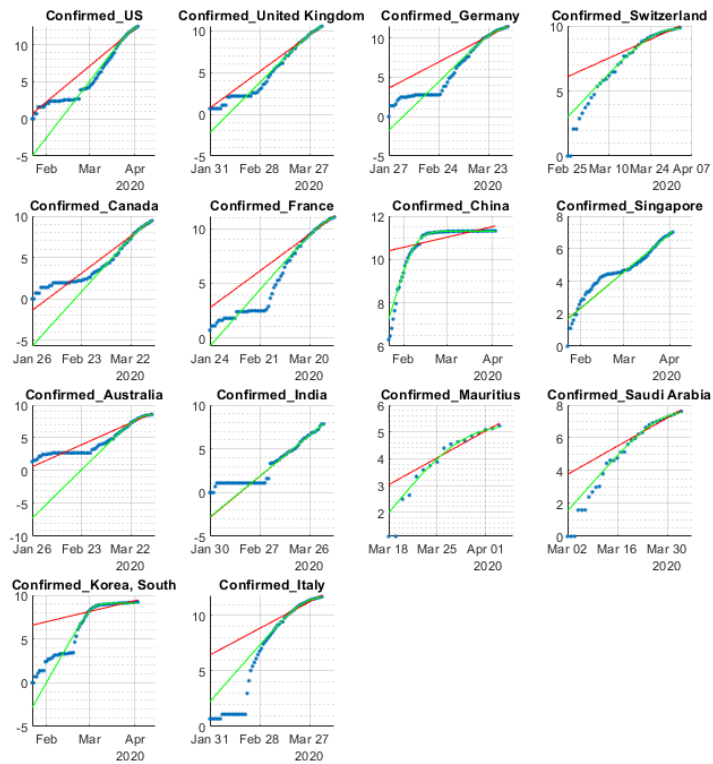
```
'Grad of DailyIncrease_Confirmed'
```



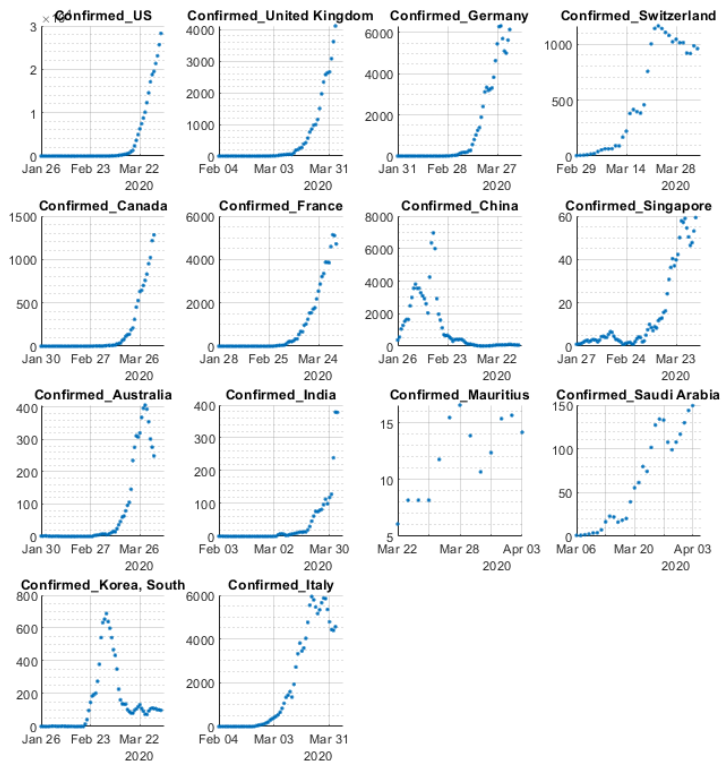
ans =  
'Confirmed'



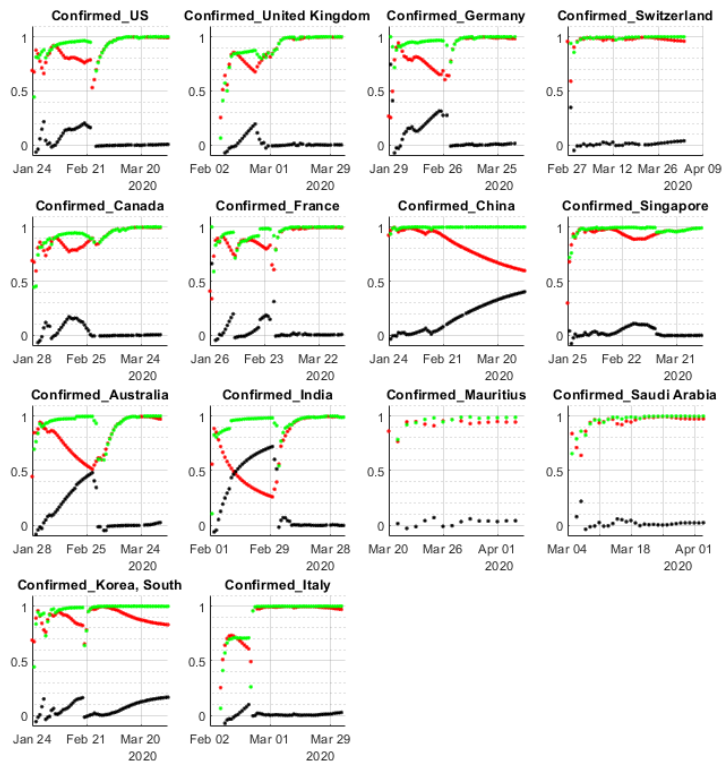
ans =  
'Log\_Confirmed'



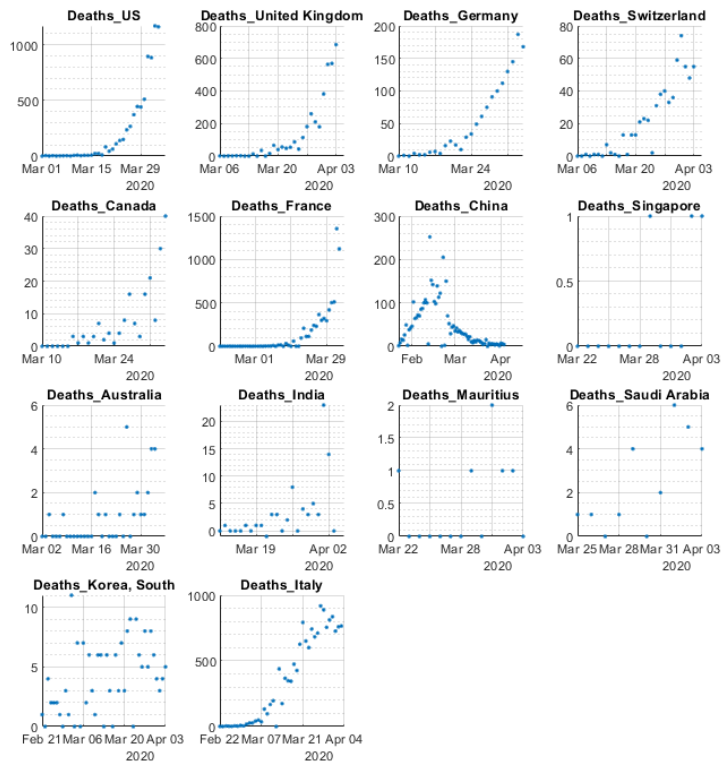
```
ans =
'Gradient_Confirmed'
```



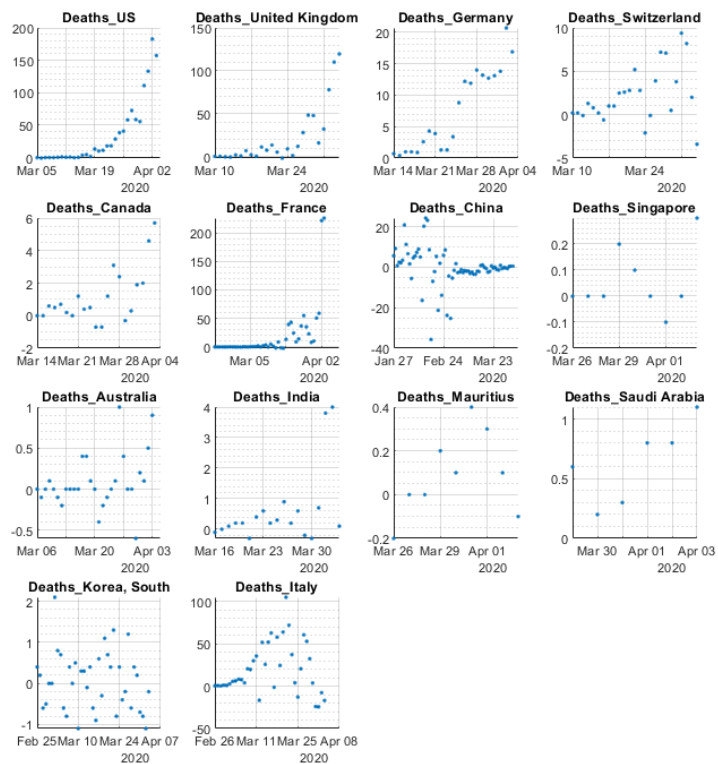
```
ans =
'Goodness of Fit_Confirmed'
```



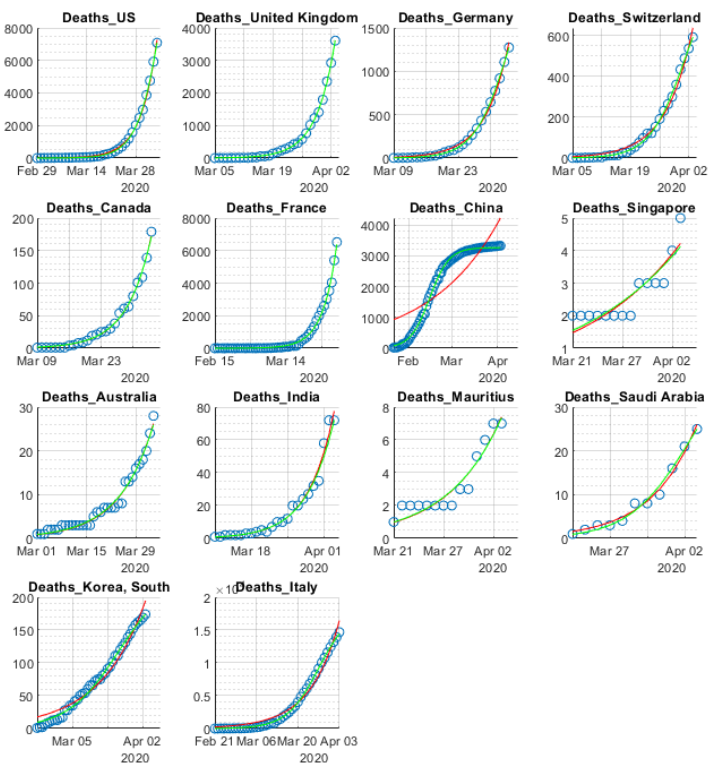
ans =  
'DailyIncrease\_Deaths'



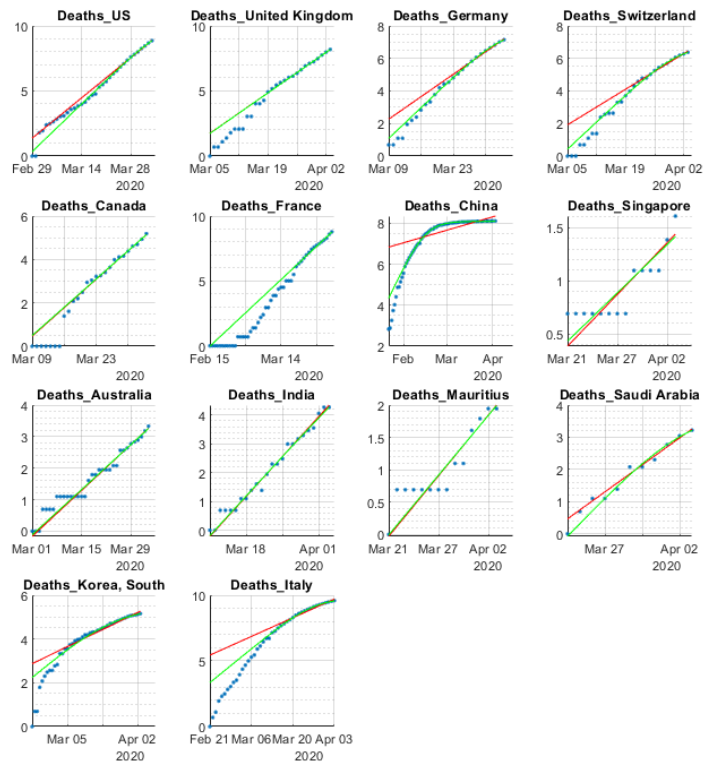
ans =  
'Grad of DailyIncrease\_Deaths'



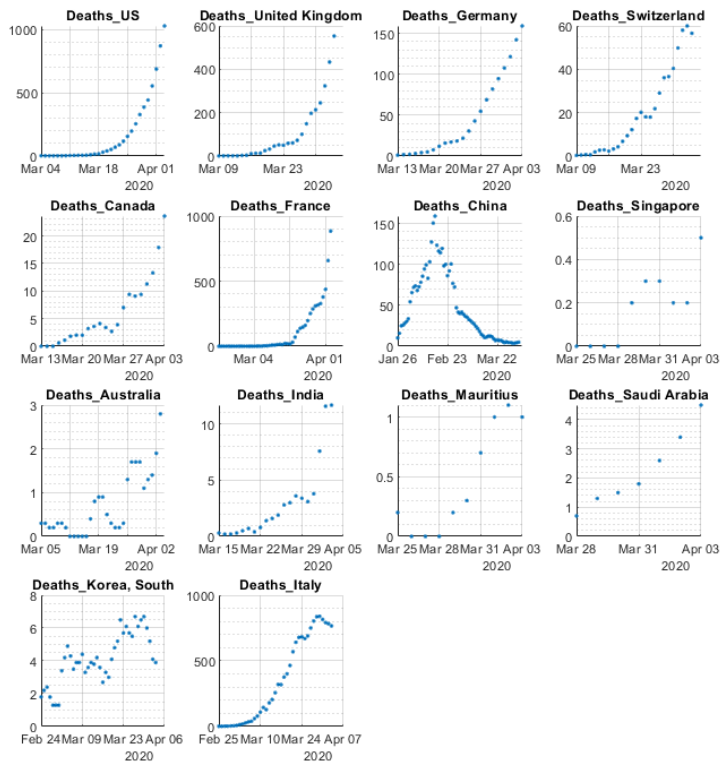
```
ans =
'Deaths'
```



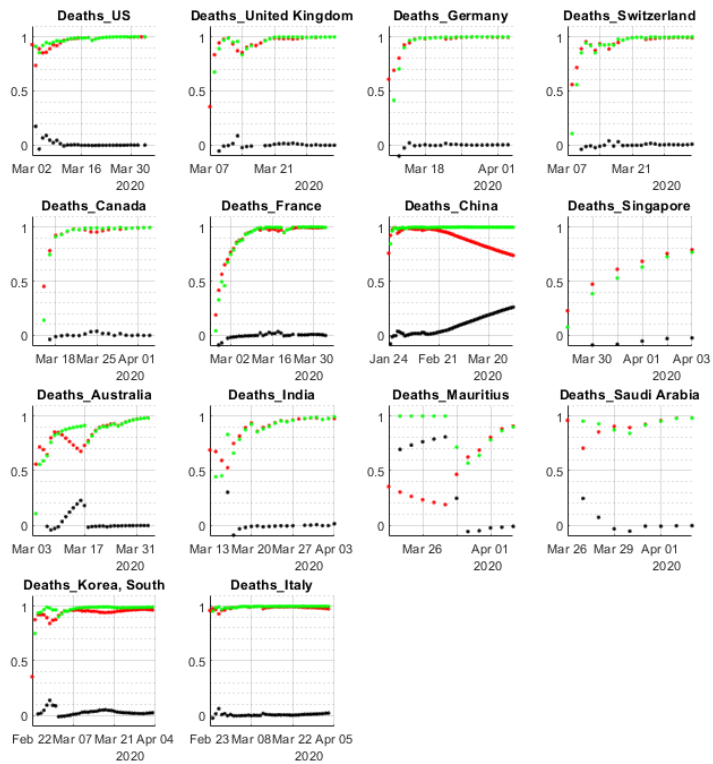
```
ans =
'Log_Deaths'
```



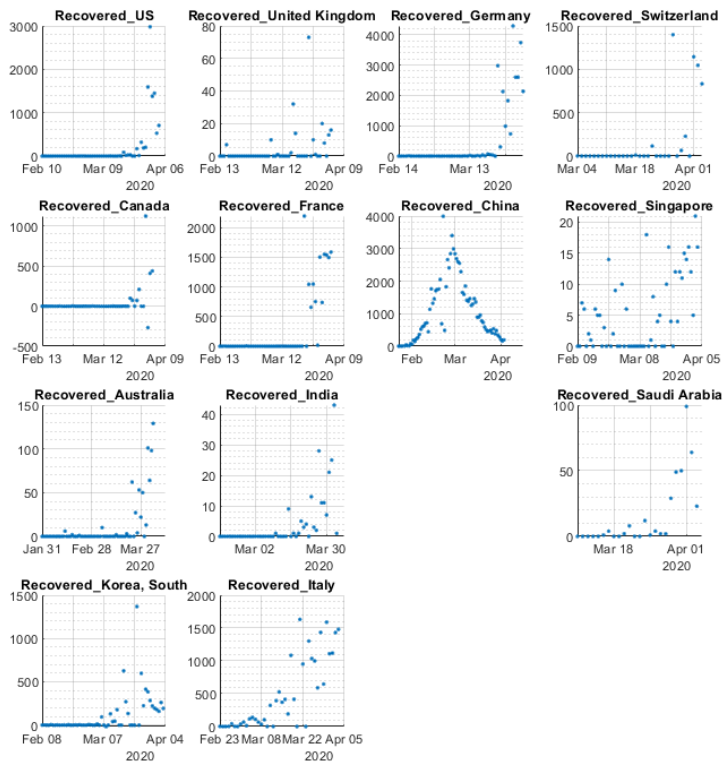
```
ans =
'Gradient_Deaths'
```



```
ans =
'Goodness of Fit_Deaths'
```

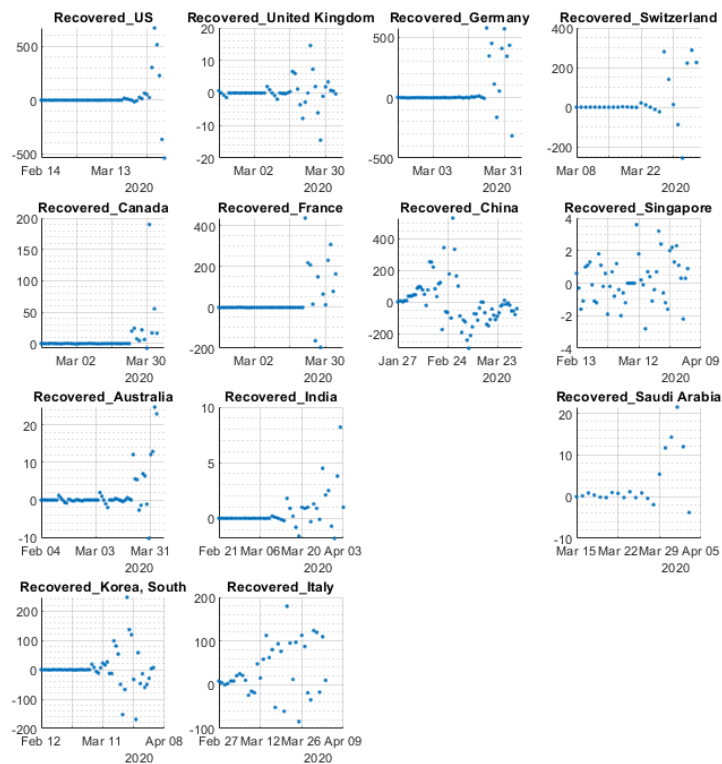


ans =  
'DailyIncrease\_Recovered'

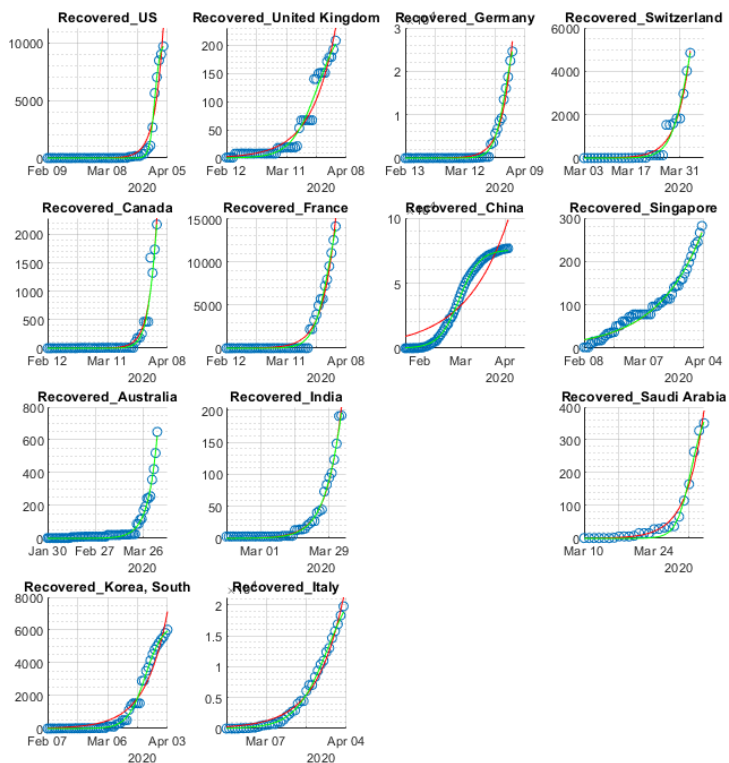


ans =  
'Grad of DailyIncrease\_Recovered'

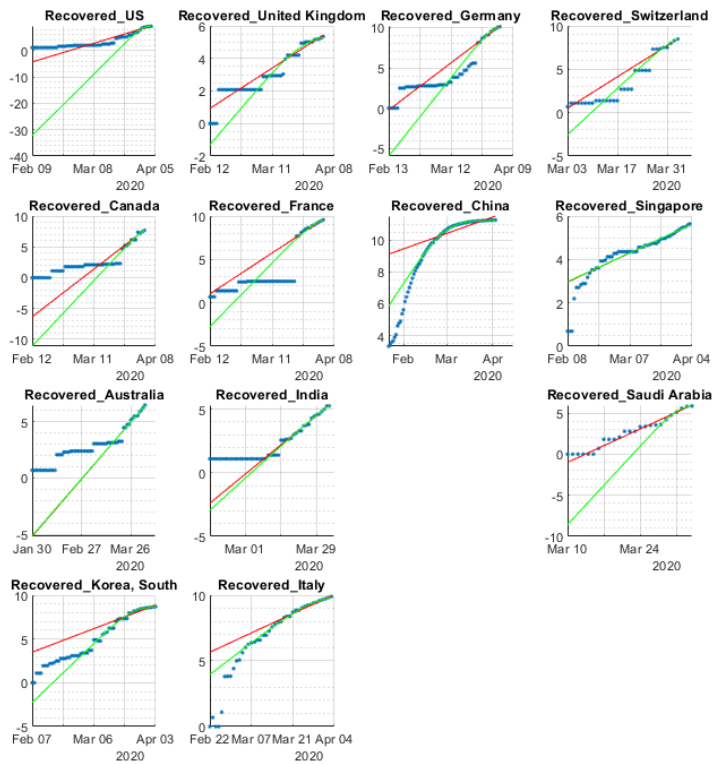




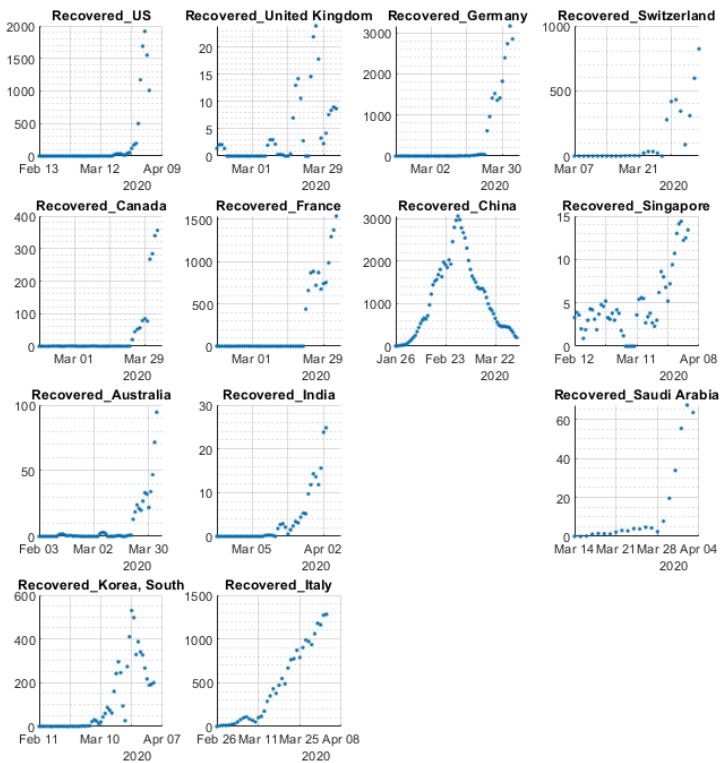
ans =  
'Recovered'



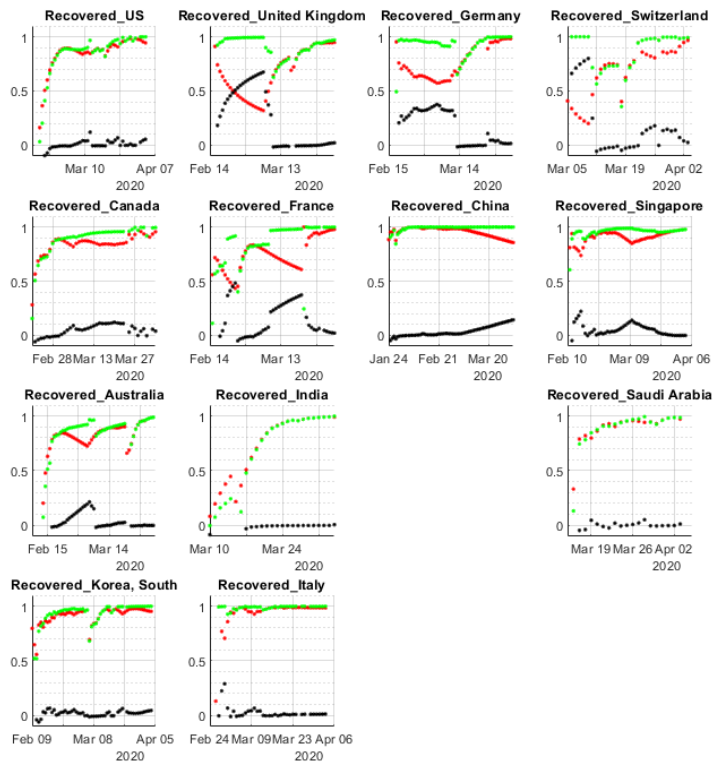
ans =  
'Log\_Recovered'



```
ans =
'Gradient_Recovered'
```



```
ans =
'Goodness of Fit_Recovered'
```



```

rep_BaseName=datetime;
rep_BaseName.Format='yyyyMMdd';
rep_BaseName=['report_',char(rep_BaseName),'.pdf'];
matlab.internal.liveeditor.openAndConvert(which('main.mlx'),rep_BaseName);

```