```
!git pull
```

```
Updating 203881b..301c88f
Fast-forward
 README.md                                        |     2 +
 .../csse_covid_19_daily_reports/03-24-2020.csv   |  3418 +++++++++++++++++++
 .../time_series_covid19_confirmed_global.csv     |   481 +--
 .../time_series_covid19_deaths_global.csv        |   481 +--
 4 files changed, 3904 insertions(+), 478 deletions(-)
 create mode 100644 csse_covid_19_data/csse_covid_19_daily_reports/03-24-2020.csv
```

```matlab
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.

```matlab
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.

```matlab
% RAW.Confirmed = trial('time_series_19-covid-Confirmed.csv');
% RAW.Deaths = trial('time_series_19-covid-Deaths.csv');
RAW.Recovered = import_git('time_series_19-covid-Recovered.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.

```matlab
Categories=fieldnames(RAW);

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

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

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

```
EndDate = datetime
   24-Mar-2020 00:00:00
```

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

```matlab
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_co
        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_Countr
    end

    fig_title=char(Categories{category_count});
    SimpleScatter(StartDate,CountrywiseData.(Categories{category_count}),fig_title,plot_titles,
end
```

```
Starting parallel pool (parpool) using the 'local' profile ...
Connected to the parallel pool (number of workers: 8).
ans =
'DailyIncrease_Confirmed'
```
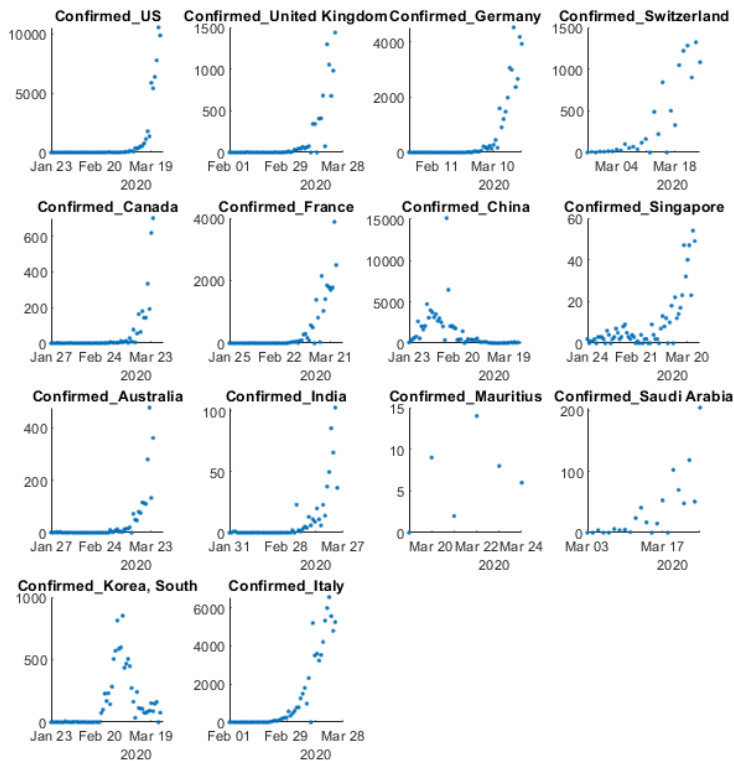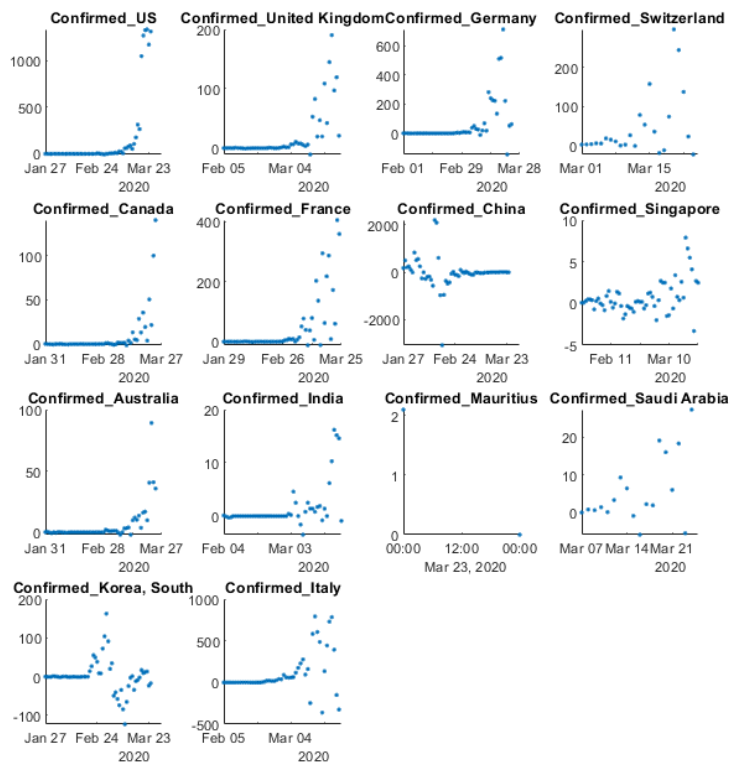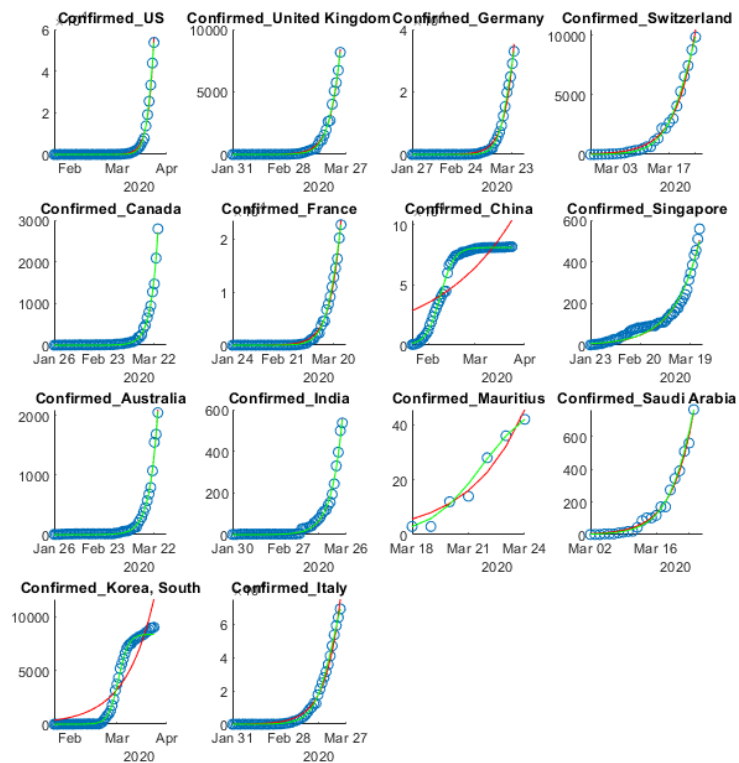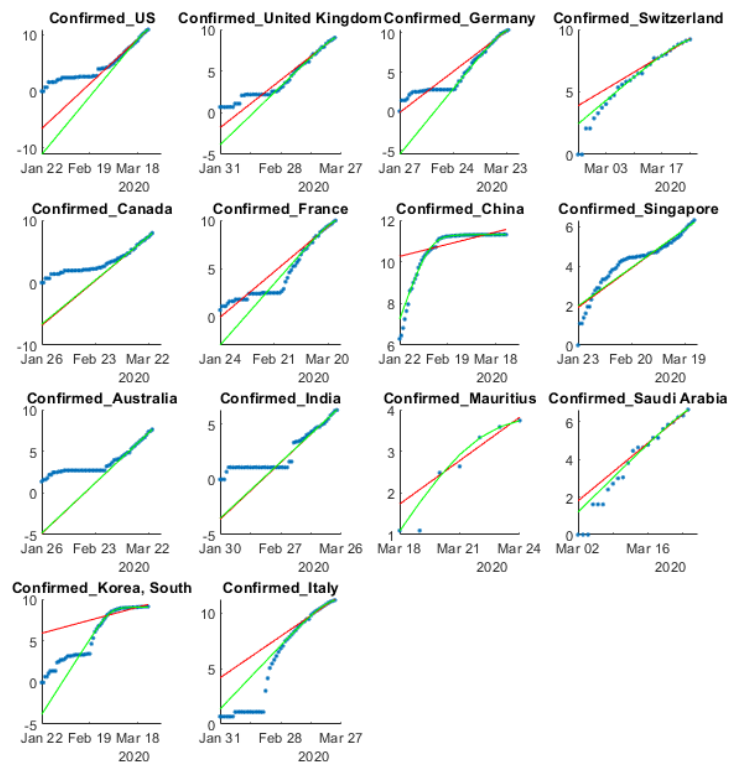


```
ans =
'Grad of DailyIncrease_Confirmed'
```
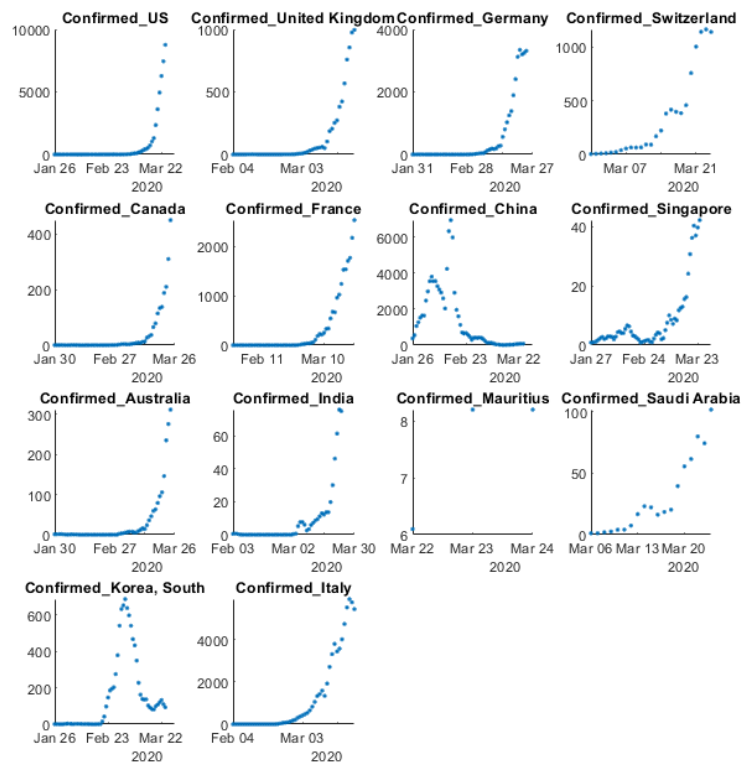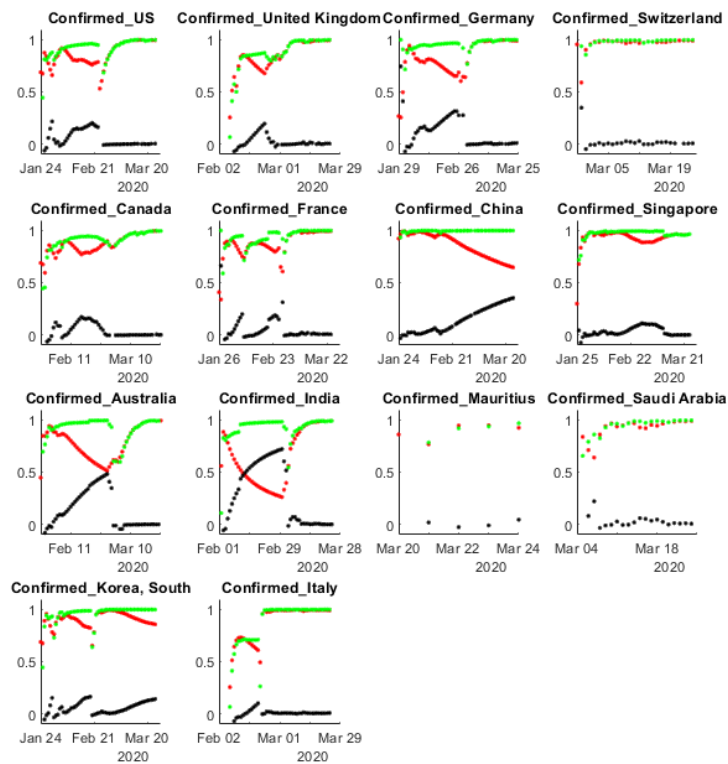
```
ans =
'Confirmed'
```



```
ans =
'Log_Confirmed'
```

3

```
ans =
'Gradient_Confirmed'
```



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

Confirmed_US, Confirmed_United Kingdom, Confirmed_Germany, Confirmed_Switzerland, Confirmed_Canada, Confirmed_France, Confirmed_China, Confirmed_Singapore, Confirmed_Australia, Confirmed_India, Confirmed_Mauritius, Confirmed_Saudi Arabia, Confirmed_Korea, South, Confirmed_Italy

```
ans =
'DailyIncrease_Deaths'
```


Deaths_US, Deaths_United Kingdom, Deaths_Germany, Deaths_Switzerland, Deaths_Canada, Deaths_France, Deaths_China, Deaths_Australia, Deaths_India, Deaths_Korea, South, Deaths_Italy
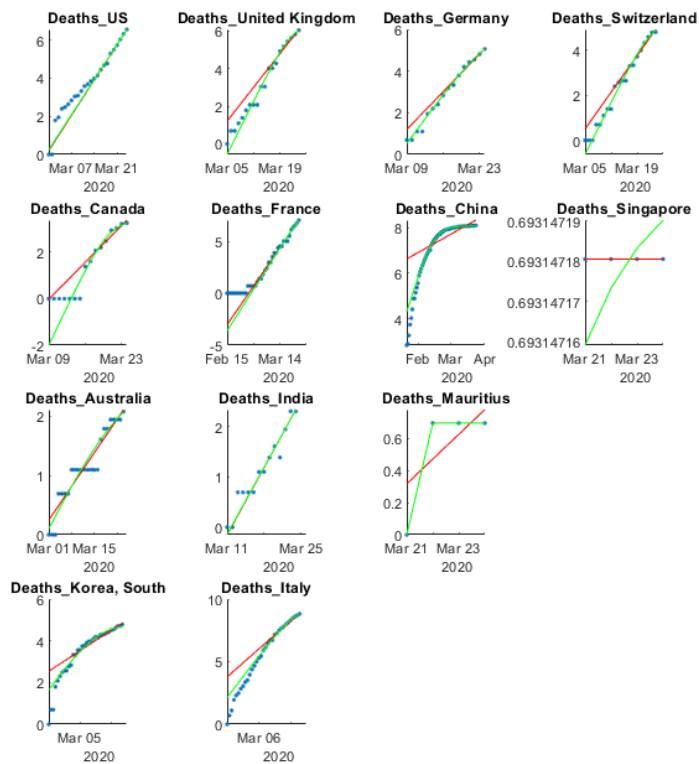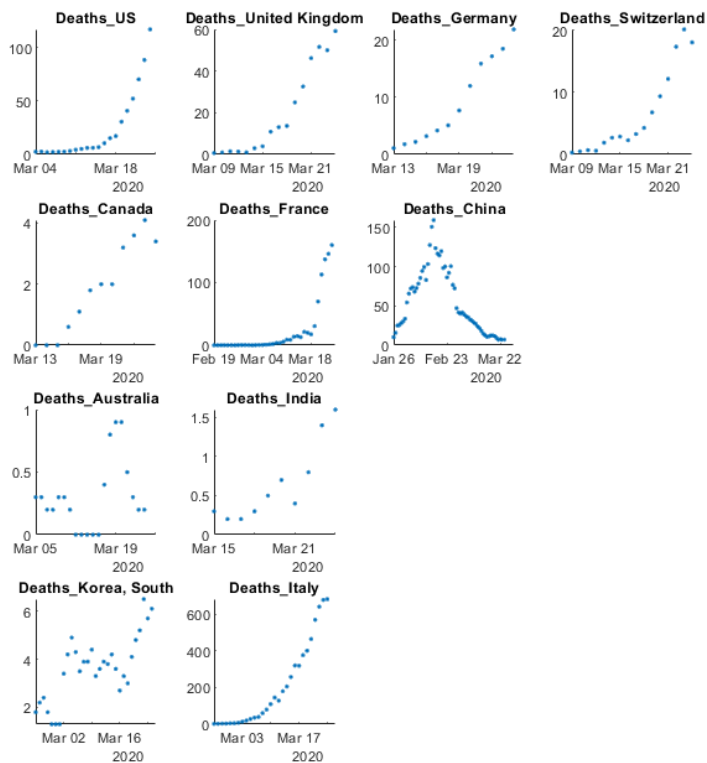
```
ans =
'Grad of DailyIncrease_Deaths'
```
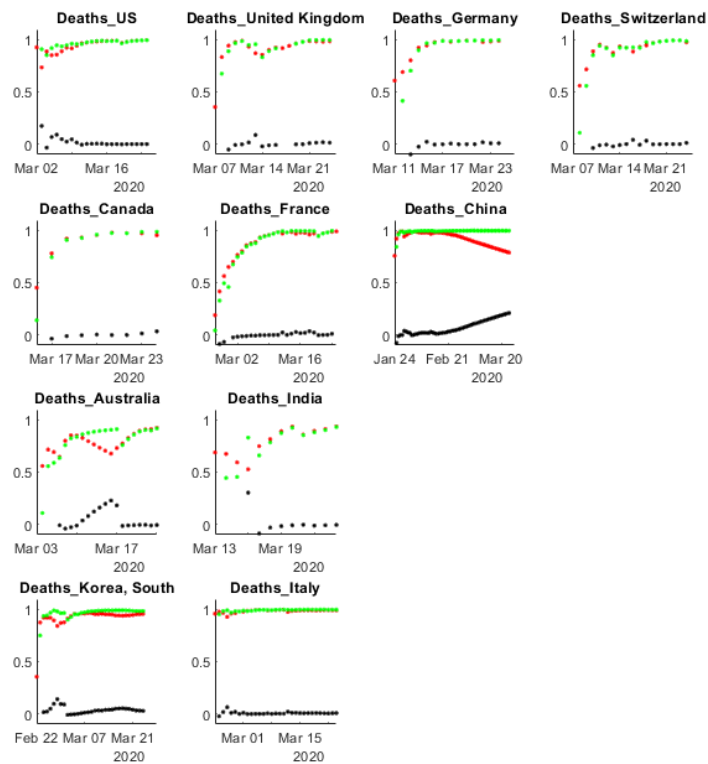
5

```
ans =
'Deaths'
```
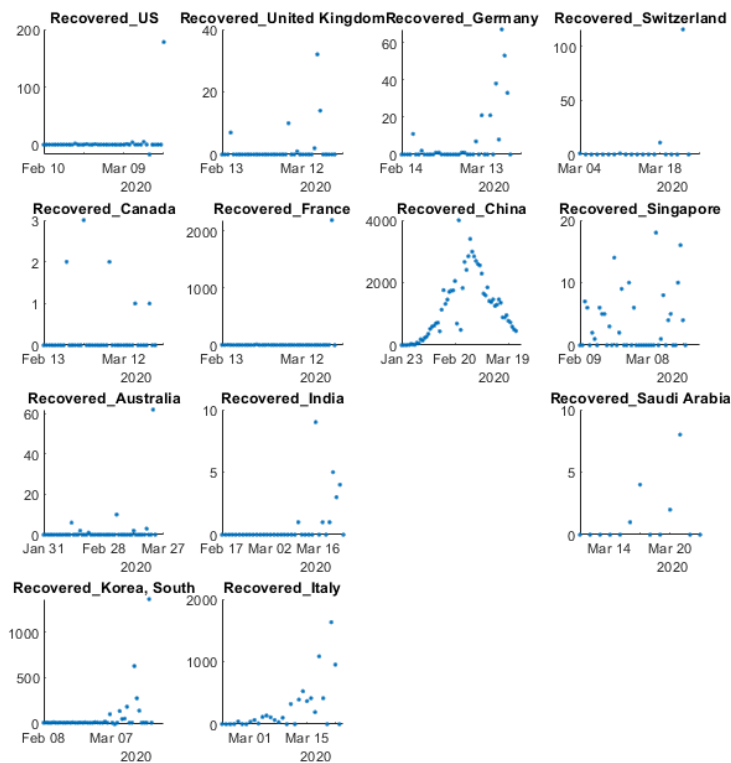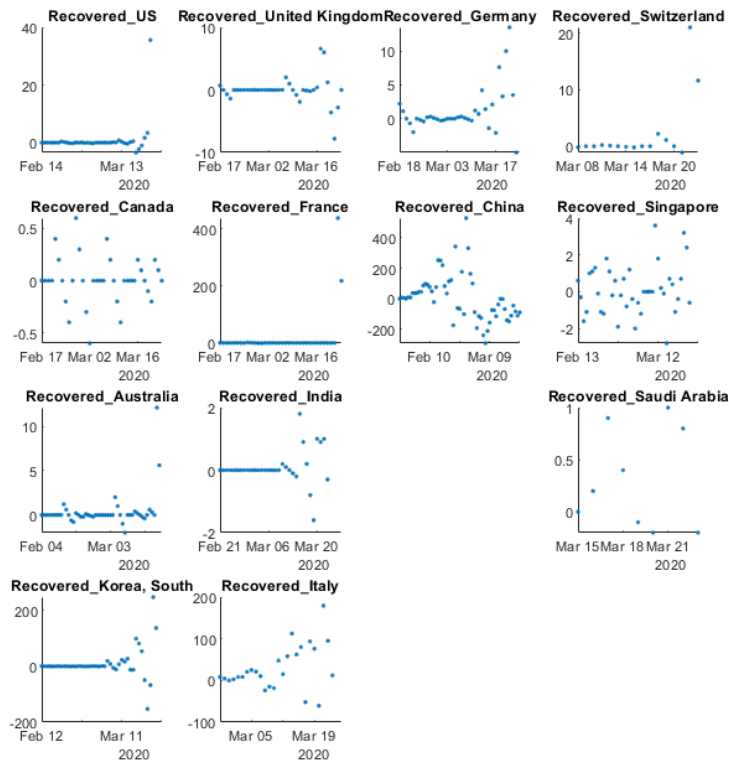


```
ans =
'Log_Deaths'
```

ans =
'Gradient_Deaths'

ans =
'Goodness of Fit_Deaths'

Deaths_US | Deaths_United Kingdom | Deaths_Germany | Deaths_Switzerland | Deaths_Canada | Deaths_France | Deaths_China | Deaths_Australia | Deaths_India | Deaths_Korea, South | Deaths_Italy

ans =
'DailyIncrease_Recovered'

Recovered_US | Recovered_United Kingdom | Recovered_Germany | Recovered_Switzerland | Recovered_Canada | Recovered_France | Recovered_China | Recovered_Singapore | Recovered_Australia | Recovered_India | Recovered_Saudi Arabia | Recovered_Korea, South | Recovered_Italy

ans =
'Grad of DailyIncrease_Recovered'
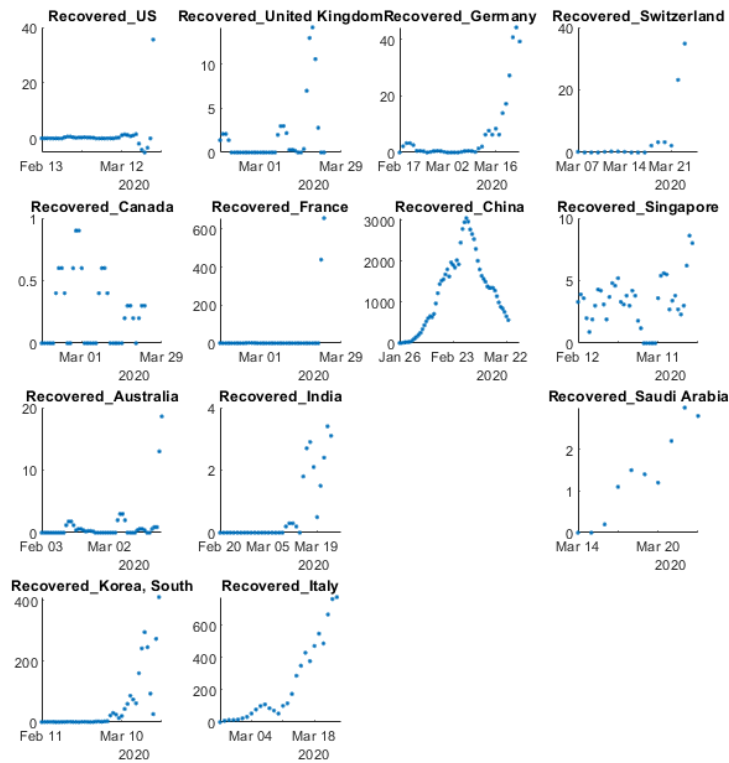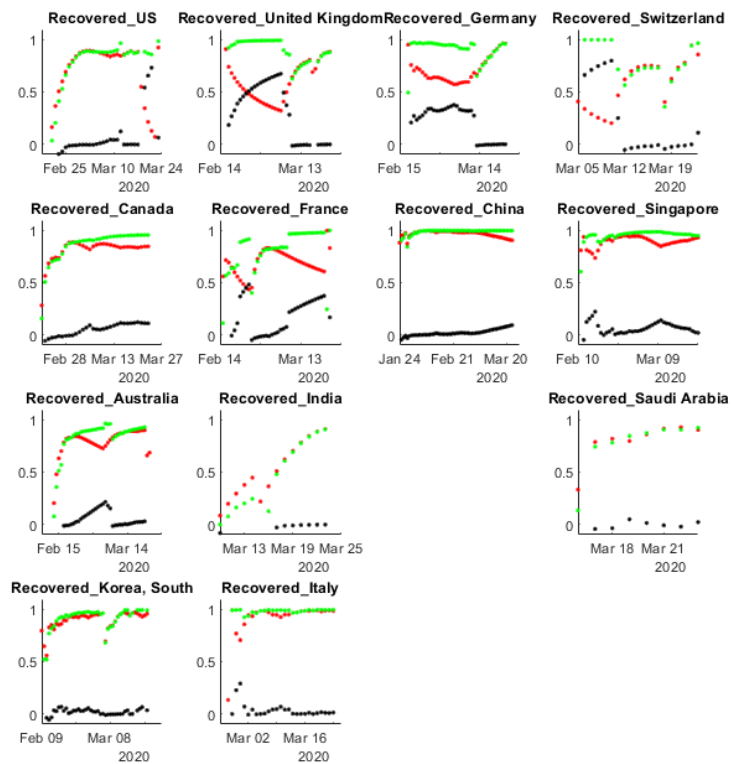
```
ans =
'Recovered'
```
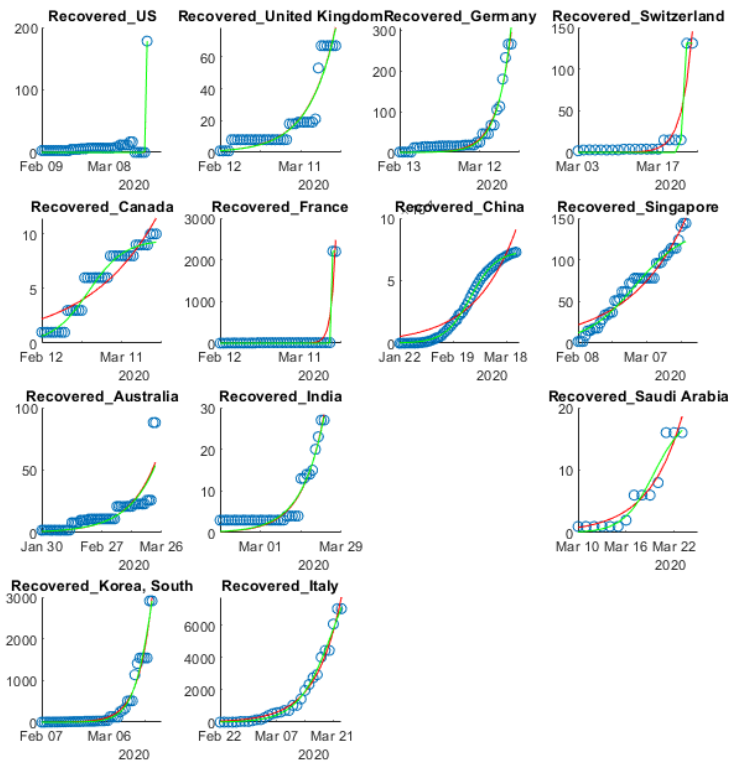


```
ans =
'Log_Recovered'
```
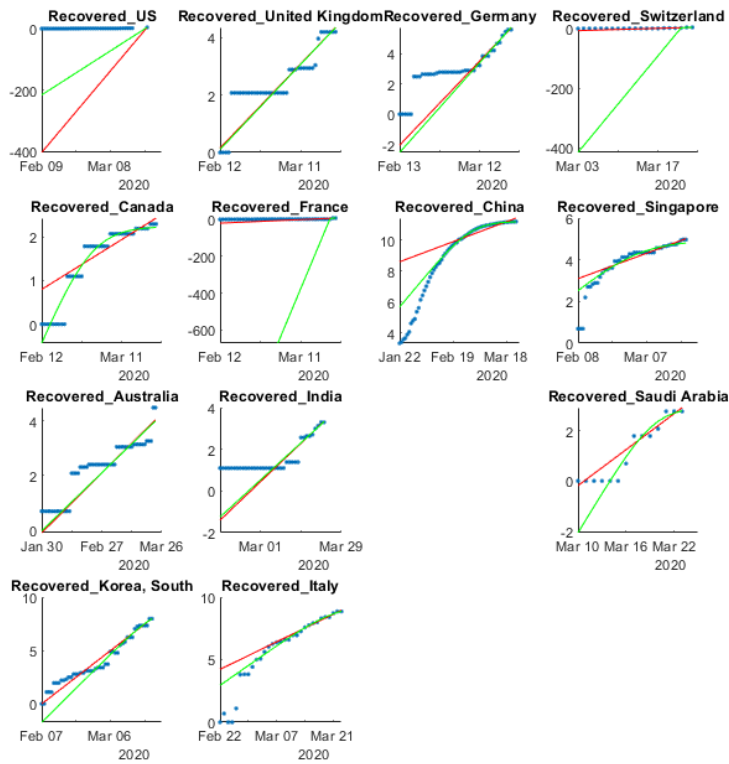
```
ans =
'Gradient_Recovered'
```



```
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);
```