COVID-19
‘MODIFIED’ Control Chart Analysis

As of Wednesday 4/29/2020, 5:00PM HST
USA

‘Modified’ Control Chart Analysis:

- Two points, out of three successive points, are on the same side of the centerline in Zone A or beyond.
  - The last three points (4/27/20 - 4/29/20) are both below the control line, which suggests a good ‘out-of-control’ pattern for COVID-19 cases in USA.

- Four points, out of five successive points, are on the same side of the centerline in Zone B or beyond.
  - The last four points (4/26/20 – 4/29/20) are below the control line, which suggests a good ‘out-of-control’ pattern for COVID-19 cases in USA during this period.
Spain


AVG=5354

'Modified' Control Chart Analysis:
- Two points, out of three successive points, are on the same side of the centerline in Zone A or beyond.
  o The last three points (4/27/20 - 4/29/20) are both below the control line, which suggests a good 'out-of-control' pattern for COVID-19 cases in Spain. However, there has been a sudden rise in daily cases on 4/29/20.
- Four points, out of five successive points, are on the same side of the centerline in Zone B or beyond.
  o The last five points (4/25/20 – 4/29/20) are all below the control line, which suggests a good 'out-of-control' pattern for COVID-19 cases in Spain during this period. However, there has been a sudden rise in daily cases on 4/29/20.
- Nine successive points are on one side of the centerline.
  o Nine consecutive points (3/27/20 - 4/04/20) are all on one side (above) of the centerline. This was a bad 'out-of-control' pattern.
Italy

‘Modified’ Control Chart Analysis:

- Two points, out of three successive points, are on the same side of the centerline in Zone A or beyond.
  - The last three points (4/27/20 - 4/29/20) are below the control line, which suggests a good ‘out-of-control’ pattern for COVID-19 cases in Italy.

- Four points, out of five successive points, are on the same side of the centerline in Zone B or beyond.
  - The last five points (4/25/20 - 4/29/20) are all below the control line, which suggests a good ‘out-of-control’ pattern for COVID-19 cases in Italy.

- Nine successive points are on one side of the centerline.
  - The nine consecutive points (4/21/20 – 4/29/20) are all on one side (below) of the centerline. This good ‘out-of-control’ pattern indicates that the daily COVID-19 cases in Italy are stabilizing in a positive direction.
France

‘Modified’ Control Chart Analysis:

- Two points, out of three successive points, are on the same side of the centerline in Zone A or beyond.
  - The last three points (4/27/20 - 4/29/20) are below the control line, which suggests a good ‘out-of-control’ pattern for COVID-19 cases in France.
- Four points, out of five successive points, are on the same side of the centerline in Zone B or beyond.
  - The last five points (4/25/20 - 4/29/20) are all below the control line, which suggests a good ‘out-of-control’ pattern for COVID-19 cases in France.
- Nine successive points are on one side of the centerline.
  - The nine consecutive points (4/21/20 – 4/29/20) are all on one side (below) of the centerline. This good ‘out-of-control’ pattern indicates that the daily COVID-19 cases in France are stabilizing in a positive direction.
Germany

'Modified' Control Chart Analysis:

• Two points, out of three successive points, are on the same side of the centerline in Zone A or beyond.
  o The last three points (4/27/20 - 4/29/20) are below the control line, which suggests a good 'out-of-control' pattern for COVID-19 cases in Germany.

• Four points, out of five successive points, are on the same side of the centerline in Zone B or beyond.
  o The last five points (4/25/20 – 4/29/20) are all below the control line, which suggests a good 'out-of-control' pattern for COVID-19 cases in Germany.

• Nine successive points are on one side of the centerline.
  o The nine consecutive points (4/21/20 – 4/29/20) are all on one side (below) of the centerline. This good 'out-of-control' pattern indicates that the daily COVID-19 cases in Germany are stabilizing in a positive direction.

• There are six consecutive points, increasing or decreasing.
  o There are six consecutive points (4/8/20 - 4/15/20) decreasing which indicates a good 'out-of-control' sign.
Russia

'Modified' Control Chart Analysis:

- Two points, out of three successive points, are on the same side of the centerline in Zone A or beyond.
  - The last three points (4/27/20 - 4/29/20) are above the control line, which suggests a bad 'out-of-control' pattern for COVID-19 cases in Russia. However, the linear trend line has a downward slope.

- Four points, out of five successive points, are on the same side of the centerline in Zone B or beyond.
  - The last five points (4/25/20 – 4/29/20) are all above the control line, which suggests a bad 'out-of-control' pattern for COVID-19 cases in Russia.
Brazil

'Modified' Control Chart Analysis:
- Two points, out of three successive points, are on the same side of the centerline in Zone A or beyond.
  - The last three points (4/27/20 - 4/29/20) are both above the control line, which suggests a bad 'out-of-control' pattern for COVID-19 cases in Brazil. Also, there has been a sudden increase in daily cases on 4/28/20.
- Four points, out of five successive points, are on the same side of the centerline in Zone B or beyond.
  - The last five points (4/25/20 - 4/29/20) are all above the control line, which indicates that there is a bad 'out-of-control' pattern for COVID-19 cases in Brazil.

'Modified' Control Chart of COVID-19 Daily Cases in Brazil (4/08/20 - 4/29/20)

AVG=2969
Canada

‘Modified’ Control Chart Analysis:

- Two points, out of three successive points, are on the same side of the centerline in Zone A or beyond.
  - The last three points (4/27/20 - 4/29/20) are both above the control line, which suggests a bad ‘out-of-control’ pattern for COVID-19 cases in Canada.

- Four points, out of five successive points, are on the same side of the centerline in Zone B or beyond.
  - The last four points (4/26/20 – 4/29/20) are all above the control line, which suggests a bad ‘out-of-control’ pattern for COVID-19 cases in Canada.

![Image of 'Modified' Control Chart of COVID-19 Daily Cases in Canada (4/05/20 - 4/29/20)](chart.png)

AVG=1507
Belgium

'Modified' Control Chart Analysis:
- Two points, out of three successive points, are on the same side of the centerline in Zone A or beyond.
  - The last three points (4/27/20 - 4/29/20) are all below the control line, which suggests a good 'out-of-control' pattern for COVID-19 cases in Belgium.
- Four points, out of five successive points, are on the same side of the centerline in Zone B or beyond.
  - The last five points (4/25/20 – 4/29/20) are all below the control line, which suggests a good 'out-of-control' pattern for COVID-19 cases in Belgium. Also, the linear trend line has a downward slope.
Switzerland

'Modified' Control Chart Analysis:

- Two points, out of three successive points, are on the same side of the centerline in Zone A or beyond.
  - The last three points (4/27/20 - 4/29/20) are below the control line, which suggests a good ‘out-of-control’ pattern for COVID-19 cases in Switzerland.
- Four points, out of five successive points, are on the same side of the centerline in Zone B or beyond.
  - The last five points (4/25/20 – 4/29/20) are all below the control line, which suggests a good ‘out-of-control’ pattern for COVID-19 cases in Switzerland. Also, the linear trend line has a downward slope.
- Nine successive points are on one side of the centerline.
  - The nine consecutive points (4/21/20 – 4/29/20) are all on one side (below) of the centerline. This is a good ‘out-of-control’ pattern and indicates that the COVID-19 cases in Switzerland are stabilizing in a positive direction.
Austria

‘Modified’ Control Chart Analysis:

- Two points, out of three successive points, are on the same side of the centerline in Zone A or beyond.
  - The last three points (4/27/20 - 4/29/20) are below the control line, which suggests a good ‘out-of-control’ pattern for COVID-19 cases in Austria.

- Four points, out of five successive points, are on the same side of the centerline in Zone B or beyond.
  - The last five points (4/25/20 - 4/29/20) are all below the control line, which suggests a good ‘out-of-control’ pattern for COVID-19 cases in Austria. Also, a remarkable linear trend line with a downward slope can be observed from 3/26/20.

- Nine successive points are on one side of the centerline.
  - Nine consecutive points (4/21/20 - 4/29/20) are all on one side (below) of the centerline. This good ‘out-of-control’ pattern suggests that the daily COVID-19 cases in Austria are stabilizing in a positive direction.
‘Modified’ Control Chart Analysis:

- Two points, out of three successive points, are on the same side of the centerline in Zone A or beyond.
  - The last three points (4/27/20 - 4/29/20) are both below the control line, which suggests a good ‘out-of-control’ pattern for COVID-19 cases in Israel.

- Four points, out of five successive points, are on the same side of the centerline in Zone B or beyond.
  - The last five points (4/25/20 – 4/29/20) are all below the control line, which suggests a good ‘out-of-control’ pattern for COVID-19 cases in Israel. Also, the linear trend line has a remarkable downward slope.
Australia

'Modified' Control Chart Analysis:

- Two points, out of three successive points, are on the same side of the centerline in Zone A or beyond.
  - The last three points (4/27/20 - 4/29/20) are below the control line, which suggests a good ‘out-of-control’ pattern for COVID-19 cases in Australia.

- Four points, out of five successive points, are on the same side of the centerline in Zone B or beyond.
  - The last five points (4/25/20 - 4/29/20) are all below the control line, which suggests an ‘out-of-control’ pattern for COVID-19 cases in Australia. A good ‘out-of-control’ sign.
  - Also, a remarkable linear trend line with a downward slope can be observed from 3/22/20.

- Nine successive points are on one side of the centerline.
  - Nine consecutive points (4/21/20 - 4/29/20) are all on one side (below) of the centerline. This good ‘out-of-control’ pattern suggests that the daily COVID-19 cases in Australia are stabilizing in a positive direction.
Cyprus

'Modified' Control Chart Analysis:

- Two points, out of three successive points, are on the same side of the centerline in Zone A or beyond.
  - The last three points (4/27/20 - 4/29/20) are below the control line, which suggests a good ‘out-of-control’ pattern for COVID-19 cases in Cyprus.

- Four points, out of five successive points, are on the same side of the centerline in Zone B or beyond.
  - The last five points (4/25/20 - 4/29/20) are all below the control line, which suggests a good ‘out-of-control’ pattern for COVID-19 cases in Cyprus. A good ‘out-of-control’ sign. Also, a linear trend line with a downward slope can be observed from 4/1/20.

- Nine successive points are on one side of the centerline.
  - Nine consecutive points (4/21/20 - 4/29/20) are all on one side (below) of the centerline. This good ‘out-of-control’ pattern suggests that the daily COVID-19 cases in Cyprus are stabilizing in a positive direction.