

The effects of the war in Ukraine and elevated uncertainty add to the existing challenges from rising inflationary and supply pressures and the imbalanced recovery from the pandemic. Despite a GDP growth of 6.2% in 2021 and overall resilience of labour markets to the pandemic, the recovery was uneven, with a disproportionate effect of the pandemic on low-skilled and young workers.

Inflation increased to record highs and vacancy rates have risen significantly to 4.7%, reflecting skill mismatches and low activity rates. According to OECD, growth will continue to slow due to heightened uncertainty, but will remain robust at 2.4% in 2022, before falling to 1% in 2023. Fiscal policy will be expansionary in 2022 and contractionary in 2023. The short-term outlook is subject to particularly high uncertainty. Supply bottlenecks and rising cost of materials, highly regulated construction permits and environmental procedures can be a barrier to the implementation of major investments. Affirming.

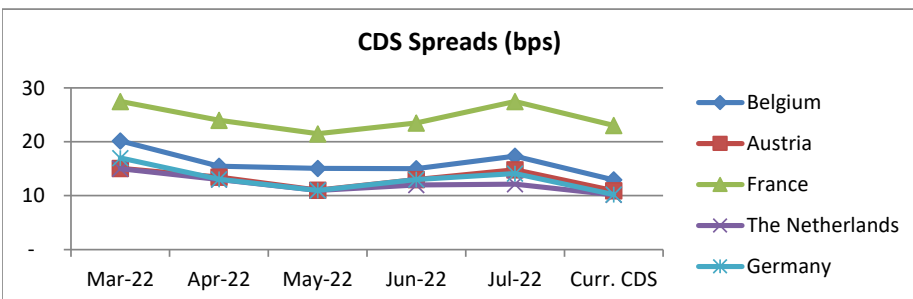
Annual Ratios (source for past results: IMF)

| <b>CREDIT POSITION</b>      | <u>2019</u> | <u>2020</u> | <u>2021</u> | <u>P2022</u> | <u>P2023</u> | <u>P2024</u> |
|-----------------------------|-------------|-------------|-------------|--------------|--------------|--------------|
| Debt/ GDP (%)               | 119.7       | 140.7       | 128.0       | 126.9        | 122.8        | 115.7        |
| Govt. Sur/Def to GDP (%)    | -1.5        | -8.6        | -5.0        | -2.2         | 0.9          | 3.8          |
| Adjusted Debt/GDP (%)       | 119.7       | 140.7       | 128.0       | 126.9        | 122.8        | 115.7        |
| Interest Expense/ Taxes (%) | 6.6         | 6.6         | 5.6         | 5.1          | 4.6          | 4.2          |
| GDP Growth (%)              | 3.9         | -4.5        | 10.8        | 2.3          | 2.3          | 2.5          |
| Foreign Reserves/Debt (%)   | 1.6         | 1.4         | 1.5         | 1.5          | 1.6          | 1.7          |
| Implied Sen. Rating         | BBB+        | BB+         | BBB         | BBB          | BBB          | BBB+         |

**INDICATIVE CREDIT RATIOS**

|                             | <u>AA</u> | <u>A</u> | <u>BBB</u> | <u>BB</u> | <u>B</u> | <u>CCC</u> |
|-----------------------------|-----------|----------|------------|-----------|----------|------------|
| Debt/ GDP (%)               | 100.0     | 115.0    | 130.0      | 145.0     | 170.0    | 200.0      |
| Govt. Sur/Def to GDP (%)    | 2.5       | 0.5      | -2.0       | -5.0      | -8.0     | -10.0      |
| Adjusted Debt/GDP (%)       | 95.0      | 110.0    | 125.0      | 140.0     | 160.0    | 190.0      |
| Interest Expense/ Taxes (%) | 9.0       | 12.0     | 15.0       | 22.0      | 26.0     | 35.0       |
| GDP Growth (%)              | 3.5       | 3.0      | 2.0        | 1.0       | -1.0     | -5.0       |
| Foreign Reserves/Debt (%)   | 3.0       | 2.5      | 2.0        | 1.5       | 1.0      | 0.5        |

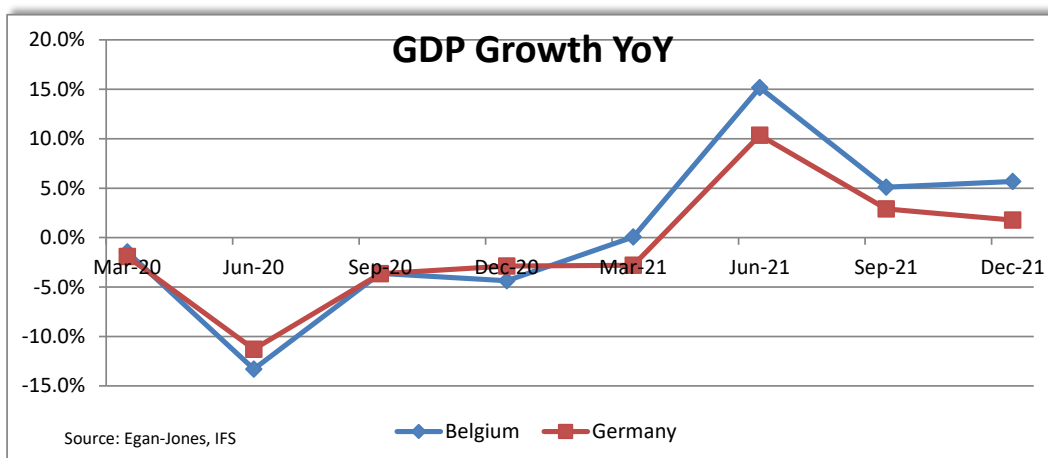
| <b>PEER RATIOS</b>          | <u>Other NRSRO Sen.</u> | <u>Debt as a % of GDP</u> | <u>Govt. Surp. Def to GDP (%)</u> | <u>Adjusted Debt/ GDP</u> | <u>Interest Expense/ Taxes %</u> | <u>GDP Growth (%)</u> | <u>Ratio- Implied Rating*</u> |
|-----------------------------|-------------------------|---------------------------|-----------------------------------|---------------------------|----------------------------------|-----------------------|-------------------------------|
| Federal Republic Of Germany | AAA                     | 77.8                      | -3.6                              | 77.8                      | 2.4                              | 6.0                   | AA                            |
| Kingdom Of Denmark          | AAA                     | 50.0                      | 3.2                               | 50.0                      | 1.1                              | 7.2                   | AA+                           |
| Kingdom Of The Netherlands  | AA+                     | 66.2                      | -2.5                              | 66.2                      | 2.2                              | 7.6                   | AA-                           |
| Austria                     | AA+                     | 102.1                     | -5.2                              | 102.1                     | 4.0                              | 6.2                   | A+                            |
| French Republic             | AA                      | 137.3                     | -6.0                              | 137.3                     | 4.6                              | 8.2                   | A-                            |



| <u>Country</u>  | <u>EJR Rtq.</u> | <u>CDS</u> |
|-----------------|-----------------|------------|
| Belgium         | BBB             | 13         |
| Austria         | A+              | 11         |
| France          | A+              | 23         |
| The Netherlands | AA-             | 10         |
| Germany         | AA              | 10         |

**Economic Growth**

The Omicron wave, high energy prices and supply constraints, including high vacancy rates, started to weigh on growth from late 2021, with 0.5% GDP growth in the first quarter of 2022. Heightened uncertainty and global commodity and energy market disruptions are adding to the slowdown, with a collapse in consumer confidence. Belgium’s GDP grew by 0.5% in Q1 2022, slightly above a preliminary estimate of 0.3% and following a 0.4% expansion in Q4. Value added was seen rising in services (0.8%) and construction (0.7%), but it decreased in industry (-0.7%). Year-on-year, the economy rose 4.9%, also above preliminary estimates of 4.6%, but slowing from a 5.7% growth in Q4.



**Fiscal Policy**

The direct impact of the war is small, but indirect effects via confidence, trade and supply chains are significant. The budget deficit narrowed in 2021 to 5.5% of GDP, helped by the phasing-out of COVID-19-related spending. The fiscal stance is expected to be supportive in 2022, as the energy crisis requires continued support measures, but restrictive in 2023, with budget deficits of 5.6% and 4.8% of GDP, respectively. Fiscal support to attenuate the near-term effects of the energy shock on vulnerable households and firms should be temporary and means-tested.

|              | Surplus-to-GDP (%) | Debt-to-GDP (%) | 5 Yr. CDS Spreads |
|--------------|--------------------|-----------------|-------------------|
| Belgium      | -4.98              | 128.02          | 12.93             |
| Germany      | -3.62              | 77.80           | 10.21             |
| Denmark      | 3.18               | 50.04           | 23.02             |
| The Netherla | -2.53              | 66.21           | 10.93             |
| Austria      | -5.19              | 102.08          | 9.16              |
| France       | -5.97              | 137.28          | 10.16             |

Sources: Thomson Reuters and IFS

**Unemployment**

A pension reform focusing on boosting the employment of older workers is foreseen in the recovery plan. Unemployment Rate in Belgium decreased to 5.50 percent in May from 5.70 percent in April 2022. Reforms are needed at all levels of government given division of competencies. Strengthened work incentives for single parents and policies to facilitate the return to work of those on disability and sickness benefits are

|              | Unemployment (%) |      |
|--------------|------------------|------|
|              | 2020             | 2021 |
| Belgium      | 5.73             | 6.28 |
| Germany      | 3.83             | 3.58 |
| Denmark      | 5.65             | 5.08 |
| The Netherla | 4.85             | 4.23 |
| Austria      | 6.03             | 6.20 |
| France       | 8.03             | 7.88 |

Source: Intl. Finance Statistics

needed.



\*Note, non-NRSRO rating. Copyright Egan-Jones Ratings Co.; no secondary distribution

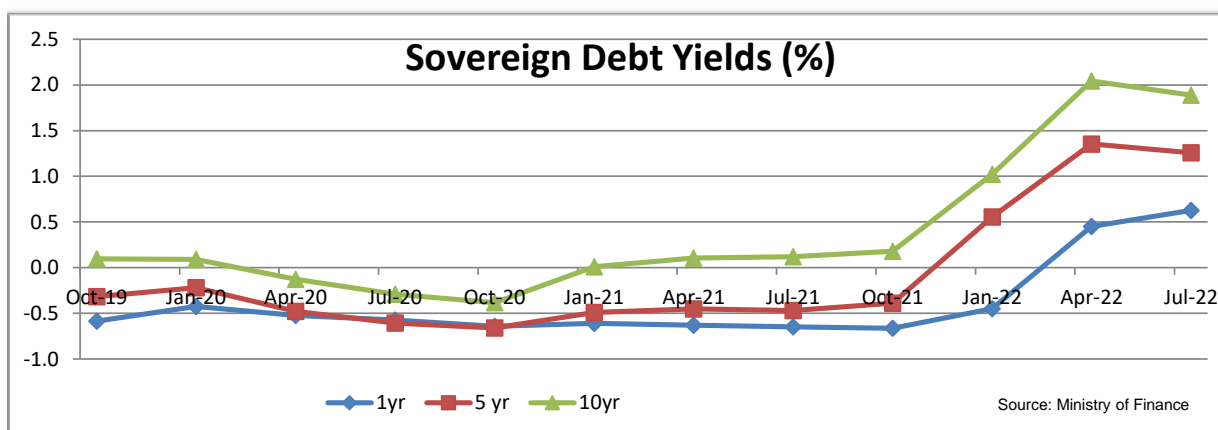
**Banking Sector**

Belgian Banks' response to the COVID crisis has been heterogeneous according to the characteristics of different groups of borrowers. The Belgian banking sector made net profits of € 7.9 billion in 2021, producing a return on equity of 10%. The previous year, profitability levels had been considerably lower, mainly because of the additional provisions that the banks had set aside to cover the expected increase of credit losses in the wake of the COVID-19 crisis.

|   | Assets       | Mkt Cap/<br>Assets % |
|---|--------------|----------------------|
| ACKERMANS & VAN   | 17.2         | 26.80                |
| KBC GROEP   | 340.3        | 6.12                 |
| <b>Total</b>  | <b>357.6</b> |                      |
| EJR's est. of cap shortfall at<br>10% of assets less market cap |              | 10.3                 |
| Belgium's GDP   |              | 506.2                |

**Funding Costs**

Belgium 10Y Bond Yield was 1.55 percent and is expected to trade at 1.81 percent by the end of this quarter, according to Trading Economics global macro models. Market consensus estimates it to trade at 2.41% in 12 months' time.



**Ease of Doing Business**

Major factors for growing the economy are the ease of doing business and the economic freedom; although not the sole factor for determining economic growth, a country which makes it easy for businesses to operate and provides a reasonably free environment to conduct business has a good chance for growth. The chart on the right indicates that with an overall rank of 46 (1 is best, 189 worst) is above average.

|                              | 2021<br><u>Rank</u> | 2020<br><u>Rank</u> | <u>Change in</u><br><u>Rank</u> |
|------------------------------|---------------------|---------------------|---------------------------------|
| <b>Overall Country Rank:</b> | <b>46</b>           | <b>46</b>           | <b>0</b>                        |
| <b>Scores:</b>               |                     |                     |                                 |
| Starting a Business          | 48                  | 48                  | 0                               |
| Construction Permits         | 45                  | 45                  | 0                               |
| Getting Electricity          | 108                 | 108                 | 0                               |
| Registering Property         | 139                 | 139                 | 0                               |
| Getting Credit               | 67                  | 67                  | 0                               |
| Protecting Investors         | 45                  | 45                  | 0                               |
| Paying Taxes                 | 63                  | 63                  | 0                               |
| Trading Across Borders       | 1                   | 1                   | 0                               |
| Enforcing Contracts          | 56                  | 56                  | 0                               |
| Resolving Insolvency         | 9                   | 9                   | 0                               |

\* Based on a scale of 1 to 189 with 1 being the highest ranking.

**Economic Freedom**

As can be seen below, Belgium is above average in its overall rank of 70.1 for Economic Freedom with 100 being best.

| <b>Heritage Foundation 2021 Index of Economic Freedom</b> |               |             |                  |              |
|---|---------------|-------------|------------------|--------------|
| <b>World Rank 70.1*</b>                                   |               |             |                  |              |
|   | <b>2021</b>   | <b>2020</b> | <b>Change in</b> | <b>World</b> |
|   | <b>Rank**</b> | <b>Rank</b> | <b>Rank</b>      | <b>Avg.</b>  |
| <b>Property Rights</b>                                    | <b>84.0</b>   | <b>84.5</b> | <b>-0.5</b>      | <b>53.6</b>  |
| <b>Government Integrity</b>                               | <b>70.2</b>   | <b>80.2</b> | <b>-10.0</b>     | <b>45.9</b>  |
| <b>Judicial Effectiveness</b>                             | <b>81.3</b>   | <b>62.5</b> | <b>18.8</b>      | <b>45.4</b>  |
| <b>Tax Burden</b>   | <b>46.5</b>   | <b>46.7</b> | <b>-0.2</b>      | <b>77.7</b>  |
| <b>Gov't Spending</b>                                     | <b>18.4</b>   | <b>17.2</b> | <b>1.2</b>       | <b>67.1</b>  |
| <b>Fiscal Health</b>                                      | <b>78.7</b>   | <b>77.0</b> | <b>1.7</b>       | <b>72.1</b>  |
| <b>Business Freedom</b>                                   | <b>80.1</b>   | <b>75.2</b> | <b>4.9</b>       | <b>63.2</b>  |
| <b>Labor Freedom</b>                                      | <b>61.1</b>   | <b>61.1</b> | <b>0.0</b>       | <b>59.5</b>  |
| <b>Monetary Freedom</b>                                   | <b>82.0</b>   | <b>80.5</b> | <b>1.5</b>       | <b>74.7</b>  |
| <b>Trade Freedom</b>                                      | <b>84.0</b>   | <b>86.4</b> | <b>-2.4</b>      | <b>70.7</b>  |

\*Based on a scale of 1-100 with 100 being the highest ranking.  
 \*\*The ten economic freedoms are based on a scale of 0 (least free) to 100 (most free).  
 Source: The Heritage Foundation

**Credit Quality Driver: Taxes Growth:**

KINGDOM OF BELGIUM has grown its taxes of 11.6% per annum in the last fiscal year which is more than the average for its peers. We expect tax revenues will grow approximately 11.6% per annum over the next couple of years and 10.4% per annum for the next couple of years thereafter.

**Credit Quality Driver: Total Revenue Growth:**

KINGDOM OF BELGIUM's total revenue growth has been more than its peers and we assumed no growth in total revenue over the next two years.

| Income Statement                                 | Peer Median | Issuer Avg. | Assumptions   |               |
|--|-------------|-------------|---------------|---------------|
|  |             |             | Yr 1&2        | Yr 3,4,5      |
| Taxes Growth%                                    | 8.8         | 11.6        | <b>11.6</b>   | <b>10.4</b>   |
| Social Contributions Growth %                    | 4.1         | 4.7         | <b>5.0</b>    | <b>5.0</b>    |
| Grant Revenue Growth %                           | 0.0         | NMF         |               |               |
| Other Revenue Growth %                           | 0.0         | NMF         |               |               |
| Other Operating Income Growth%                   | 0.0         | 8.4         | <b>8.4</b>    | <b>8.4</b>    |
| Total Revenue Growth%                            | 8.4         | 9.1         | <b>9.1</b>    | <b>8.2</b>    |
| Compensation of Employees Growth%                | 3.5         | 3.1         | <b>3.1</b>    | <b>3.1</b>    |
| Use of Goods & Services Growth%                  | 10.8        | 6.8         | <b>6.8</b>    | <b>6.8</b>    |
| Social Benefits Growth%                          | 3.5         | 3.0         | <b>3.0</b>    | <b>3.0</b>    |
| Subsidies Growth%                                | (4.8)       | (6.5)       |               |               |
| Other Expenses Growth%                           | 0.0         |             |               |               |
| Interest Expense                                 | 1.8         | 1.3         | <b>1.3</b>    |               |
| Currency and Deposits (asset) Growth%            | 1.3         | 0.0         |               |               |
| Securities other than Shares LT (asset) Growth%  | 6.9         | 0.0         |               |               |
| Loans (asset) Growth%                            | (71.8)      | 29.5        | <b>11.6</b>   | <b>11.6</b>   |
| Shares and Other Equity (asset) Growth%          | (70.9)      | 108.3       | <b>108.3</b>  | <b>97.5</b>   |
| Insurance Technical Reserves (asset) Growth%     | 0.0         | 0.0         |               |               |
| Financial Derivatives (asset) Growth%            | (7.4)       | (12.7)      | <b>(12.7)</b> | <b>(12.7)</b> |
| Other Accounts Receivable LT Growth%             | (1.8)       | 6.4         | <b>6.4</b>    | <b>6.4</b>    |
| Monetary Gold and SDR's Growth %                 | 0.0         | 0.0         | <b>5.0</b>    | <b>5.0</b>    |
| Other Assets Growth%                             | 0.0         | 0.0         |               |               |
| Other Accounts Payable Growth%                   | 2.2         | 7.6         | <b>5.0</b>    | <b>5.0</b>    |
| Currency & Deposits (liability) Growth%          | 2.8         | 1.8         | <b>1.8</b>    | <b>1.8</b>    |
| Securities Other than Shares (liability) Growth% | 2.4         | (0.5)       | <b>(0.4)</b>  | <b>(0.4)</b>  |
| Loans (liability) Growth%                        | 0.1         | 8.6         | <b>8.6</b>    | <b>8.6</b>    |
| Insurance Technical Reserves (liability) Growth% | 0.0         | 66.3        | <b>2.0</b>    | <b>2.0</b>    |
| Financial Derivatives (liability) Growth%        | 0.0         | (22.1)      | <b>(10.0)</b> | <b>(10.0)</b> |
| Additional ST debt (1st year)(millions EUR)      | 0.0         | 0.0         |               |               |

**ANNUAL OPERATING STATEMENTS**

Below are KINGDOM OF BELGIUM's annual income statements with the projected years based on the assumptions listed on page 5.

|                                   | <b>ANNUAL REVENUE AND EXPENSE STATEMENT</b> |                |                |                |                |                |
|-----------------------------------|---|----------------|----------------|----------------|----------------|----------------|
|                                   | <b>(MILLIONS EUR)</b>                       |                |                |                |                |                |
|                                   | <b>2018</b>                                 | <b>2019</b>    | <b>2020</b>    | <b>2021</b>    | <b>P2022</b>   | <b>P2023</b>   |
| Taxes                             | 142,982                                     | 142,515        | 135,480        | 151,189        | 168,727        | 188,299        |
| Social Contributions              | 71,377                                      | 73,674         | 73,070         | 76,484         | 80,308         | 84,324         |
| Grant Revenue                     |   |                |                |                |                |                |
| Other Revenue                     |   |                |                |                |                |                |
| Other Operating Income            | <u>22,087</u>                               | <u>22,625</u>  | <u>20,597</u>  | <u>22,331</u>  | <u>22,331</u>  | <u>22,331</u>  |
| Total Revenue                     | <u>236,446</u>                              | <u>238,814</u> | <u>229,147</u> | <u>250,004</u> | <u>271,366</u> | <u>294,954</u> |
| Compensation of Employees         | 56,871                                      | 58,741         | 60,469         | 62,328         | 64,244         | 66,219         |
| Use of Goods & Services           | 19,030                                      | 19,567         | 19,795         | 21,139         | 22,574         | 24,107         |
| Social Benefits                   | 113,007                                     | 116,990        | 128,272        | 132,107        | 136,057        | 140,124        |
| Subsidies                         | 16,910                                      | 17,956         | 22,817         | 21,342         | 21,344         | 21,346         |
| Other Expenses                    |   |                |                | 18,897         | 18,897         | 18,897         |
| Grant Expense                     |   |                |                |                |                |                |
| Depreciation                      | 10,296                                      | 10,577         | 10,673         | 11,008         | 11,008         | 11,008         |
| Total Expenses excluding interest | <u>228,658</u>                              | <u>236,679</u> | <u>259,534</u> | <u>266,821</u> | <u>274,124</u> | <u>281,702</u> |
| Operating Surplus/Shortfall       | 7,788                                       | 2,135          | -30,387        | -16,817        | -2,758         | 13,252         |
| Interest Expense                  | <u>9,774</u>                                | <u>9,408</u>   | <u>8,906</u>   | <u>8,414</u>   | <u>8,523</u>   | <u>8,634</u>   |
| Net Operating Balance             | -1,987                                      | -7,273         | -39,295        | -25,233        | -11,281        | 4,618          |

## ANNUAL BALANCE SHEETS

Below are KINGDOM OF BELGIUM's balance sheets with the projected years based on the assumptions listed on page 5.

| Base Case                                | ANNUAL BALANCE SHEETS<br>(MILLIONS EUR) |                 |                 |                 |                 |                 |
|--|---|-----------------|-----------------|-----------------|-----------------|-----------------|
|  | 2018                                    | 2019            | 2020            | 2021            | P2022           | P2023           |
| <b>ASSETS</b>                            |   |                 |                 |                 |                 |                 |
| Currency and Deposits (asset)            | 19,191                                  | 16,731          | 20,159          | 25,005          | 25,005          | 25,005          |
| Securities other than Shares LT (asset)  | 2,377                                   | 2,505           | 2,524           | 2,575           | 2,575           | 2,575           |
| Loans (asset)                            | 1,250                                   | 1,728           | 1,795           | 2,325           | 2,595           | 2,896           |
| Shares and Other Equity (asset)          | 459                                     | 920             | 515             | 1,073           | 2,236           | 4,658           |
| Insurance Technical Reserves (asset)     |   |                 |                 |                 | 0               | 0               |
| Financial Derivatives (asset)            | 2,204                                   | 2,611           | 2,664           | 2,327           | 2,033           | 1,776           |
| Other Accounts Receivable LT             | 23,990                                  | 23,332          | 26,742          | 28,446          | 30,259          | 32,187          |
| Monetary Gold and SDR's                  |   |                 |                 |                 |                 |                 |
| Other Assets                             |   |                 |                 |                 | 140,795         | 140,795         |
| Additional Assets                        | <u>110,356</u>                          | <u>125,861</u>  | <u>131,944</u>  | <u>140,795</u>  |                 |                 |
| Total Financial Assets                   | <u>159,827</u>                          | <u>173,688</u>  | <u>186,343</u>  | <u>202,546</u>  | <u>205,497</u>  | <u>209,891</u>  |
| <b>LIABILITIES</b>                       |   |                 |                 |                 |                 |                 |
| Other Accounts Payable                   | 18,211                                  | 17,999          | 18,711          | 20,125          | 21,131          | 22,188          |
| Currency & Deposits (liability)          | 1,459                                   | 1,473           | 1,465           | 1,492           | 1,492           | 1,492           |
| Securities Other than Shares (liability) | 442,835                                 | 475,739         | 544,517         | 541,702         | 539,742         | 537,788         |
| Loans (liability)                        | 79,326                                  | 77,240          | 77,853          | 84,549          | 95,830          | 91,212          |
| Insurance Technical Reserves (liability) | 63                                      | 66              | 101             | 168             | 171             | 175             |
| Financial Derivatives (liability)        | 2,718                                   | 3,269           | 4,024           | 3,136           | 2,822           | 2,540           |
| Other Liabilities                        | <u>62</u>                               | <u>36</u>       | <u>1</u>        | <u>1</u>        | <u>1</u>        | <u>1</u>        |
| Liabilities                              | 544,674                                 | 575,822         | 646,672         | 651,173         | 665,405         | 665,181         |
| Net Financial Worth                      | <u>-384,847</u>                         | <u>-402,134</u> | <u>-460,329</u> | <u>-448,627</u> | <u>-459,908</u> | <u>-455,290</u> |
| Total Liabilities & Equity               | <u>159,827</u>                          | <u>173,688</u>  | <u>186,343</u>  | <u>202,546</u>  | <u>205,497</u>  | <u>209,891</u>  |

Copyright © 2022, Egan-Jones Ratings Company, Inc. ("Egan-Jones"). All rights reserved. The information upon which Egan-Jones ratings and reports are based is obtained by Egan-Jones from sources Egan-Jones believes to be accurate and reliable. Egan-Jones relies on third party reports and information and data provided and Egan-Jones has not, unless required by law or internal policies/procedures, independently verified or performed due diligence related to the accuracy of information, data or reports. Egan-Jones has not consented to, nor will consent to, being named an "expert" under federal securities laws, including without limitation, Section 7 of the Securities Act of 1933. Please note that expected or final ratings are not recommendations to buy, hold or sell the securities. Egan-Jones is not an advisor and is not providing investment advice, strategy or related services. Egan-Jones and its third-party suppliers ("Suppliers") hereby disclaim any representation or warranty, express or implied, as to the accuracy, timeliness, completeness, merchantability, and fitness for any particular purpose or non-infringement of any of such information. In no event shall Egan-Jones or its directors, officers, employees, independent contractors, agents, representatives, or Suppliers (collectively, Egan-Jones Representatives) be liable (1) for any inaccuracy, delay, loss of data, interruption in service, error, (negligent or otherwise) or other circumstance or contingency within or outside the control of Egan-Jones or any Egan-Jones Representative, in connection with or related to obtaining, collecting, compiling, analyzing, interpreting, communicating, publishing or delivering any such information. Ratings and other opinions issued by Egan-Jones are, and must be construed solely as, statements of opinion and not statements of fact as to credit worthiness or recommendations to purchase, sell or hold any securities. A report providing an Egan-Jones rating is neither a prospectus nor a substitute for the information assembled, verified and presented to investors by the issuer and its agents in connection with the sale of the securities. Egan-Jones is not responsible for the content or operation of third-party websites accessed through hypertext or other computer links and Egan-Jones shall have no liability to any person or entity for the use of such third-party websites. This publication may not be reproduced, retransmitted or distributed in any form without the prior written consent of Egan-Jones. Egan-Jones ratings are subject to disclaimers. **Egan-Jones is not an NRSRO (as defined by the SEC) for sovereign/municipal issuers and structured finance/ABS issuers.**

#### **Comments on the Difference between the Model and Assigned Rating**

In this case, there has been little change in the recent results and therefore we have used our best judgement in making adjustments which are reflected in the results for the projected ratings. We have assigned a rating of "BBB" whereas the ratio-implied rating for most recent period is "BBB"; the median rating for the peers is significantly higher than the issuer's rating.

#### **Changes in Indicative Ratios**

We have not made any adjustment in the indicative ratios at this time.



**SEC Rule 17g-7(a) Disclosure (Non-NRSRO)**

Below are the disclosures as required by Paragraph (a) of Rule 17g-7.

**1. The symbol in the rating scale used to denote the credit rating categories and notches within categories and the identity of the obligor, security, or money market instrument as required by Paragraph (a)(1)(ii)(A) of Rule 17g-7:**

For the issuer KINGDOM OF BELGIUM with the ticker of 111136Z BB we have assigned the senior unsecured rating of BBB. There are three notches in our rating categories (e.g., A- A, and A+) except for AAA and those deep into speculative grade, i.e., CC, C, and D do not have notches.

**2. The version of the procedure or methodology used to determine the credit rating as required by Paragraph (a)(1)(ii)(B) of Rule 17g-7:**

We are using the Methodologies for Determining Credit Ratings (Main Methodology) version #15a available via [egan-jones.com](http://egan-jones.com) under the tab at the bottom of the page "Methodologies".

**3. The main assumptions and principles used in constructing the procedures and methodologies used to determine the credit rating as required by Paragraph (a)(1)(ii)(C) of Rule 17g-7:**

The credit rating assigned reflects our judgement regarding the future credit quality of the issuer. Regarding the specific assumptions used, please refer to projections on pages 1, 6, and 7 of this Rating Analysis Report.

**4. The potential limitations of the credit rating as required by Paragraph (a)(1)(ii)(D) of Rule 17g-7:**

Our rating pertains solely to our view of current and prospective credit quality. Our rating does not address pricing, liquidity, or other risks associated with holding investments in the issuer.

**5. Information on the uncertainty of the credit rating as required by Paragraph (a)(1)(ii)(E) of Rule 17g-7:**

Our rating is dependent on numerous factors including the reliability, accuracy, and quality of the data relied upon in determining the credit rating. The data is sourced from publicly available information from the IMF and other similar sources. In some cases, the information is limited because of issues such as the lack of reported data, a delay in reporting data, restatements, inaccurate accounting and other issues. Such issues are not always readily apparent. EJR aims to identify such shortcomings and make adjustments using its best judgement.

**6. Whether and to what extent third-party due diligence services have been used in taking the rating action as required by Paragraph (a)(1)(ii)(F) of Rule 17g-7:**

EJR does not utilize third-party due diligence services.

**7. How servicer or remittance reports were used, and with what frequency, to conduct surveillance of the credit rating as required by Paragraph (a)(1)(ii)(G) of Rule 17g-7:**

Servicer or remittance reports normally pertain to structured finance issuers; this report does not pertain to a structured finance issuer (EJR is not an NRSRO for structured finance or sovereigns/ municipal issuers). Regarding surveillance, the minimum time period for corporation issuers is normally one year.

**8. A description of the data that were relied upon for the purpose of determining the credit rating as required by Paragraph (a)(1)(ii)(H) of Rule 17g-7:**

EJR uses publicly available information from the IMF, governmental filings and other similar sources for ratings on sovereign issuers.

**9. A statement containing an overall assessment of the quality of information available and considered in the credit rating as required by Paragraph (a)(1)(ii)(I) of Rule 17g-7: The information is generally high quality and readily available.****10. Information relating to conflicts of interest as required by Paragraph (a)(1)(ii)(J) of Rule 17g-7:**

This rating is unsolicited.

**11. An explanation or measure of the potential volatility of the credit rating as required by Paragraph (a)(1)(ii)(K) of Rule 17g-7:**

Our rating aims to assess the probability of the payment of obligations in full and on-time. Factors which affect such probability, and in turn our rating, include changes in the operating performance of the issuer, changes in capital structure, and merger and acquisition events.

**12. Information on the content of the credit rating as required by Paragraph (a)(1)(ii)(L) of Rule 17g-7:**

Regarding the historical performance of the credit rating, our rating transition matrix is available in our Form NRSRO, exhibit 1. The expected probability of default and the expected loss in the event of default is listed on the first page of this report.

**13. Information on the sensitivity of the credit rating to assumptions as required by Paragraph (a)(1)(ii)(M) of Rule 17g-7:**

Below is a summary of the impact of the 5 assumptions which independently would have the greatest impact on our "ratio-implied rating":

|                                  | Assumptions |            |             | Resulting Ratio-Implied Rating |            |             |
|----------------------------------|-------------|------------|-------------|--------------------------------|------------|-------------|
|                                  | Base        | Optimistic | Pessimistic | Base                           | Optimistic | Pessimistic |
| Taxes Growth%                    | 6.0         | 10.0       | 2.0         | BBB                            | BBB        | BBB-        |
| Social Contributions Growth %    | 7.0         | 10.0       | 4.0         | BBB                            | BBB+       | BBB         |
| Other Revenue Growth %           |             | 3.0        | (3.0)       | BBB                            | BBB        | BBB         |
| Total Revenue Growth%            | 7.0         | 9.0        | 5.0         | BBB                            | BBB        | BBB         |
| Monetary Gold and SDR's Growth % | 5.0         | 7.0        | 3.0         | BBB                            | BBB        | BBB         |

**14. If the credit rating is assigned to an asset-backed security, a description of: (i) the representations, warranties, and enforcement mechanisms available to investors; and (ii) how they differ from the representations, warranties, and enforcement mechanisms in issuances of similar securities, as required by Paragraph (a)(1)(ii)(N) of Rule 17g-7:**

This credit rating is not assigned to an asset-backed security.

**ATTESTATION FORM**

In compliance with the US Securities and Exchange Commission (SEC) Rule 17g-7(a), the Egan-Jones analyst who published the report is responsible for the rating action and to the best knowledge of the person:

- 1) No part of the credit rating was influenced by any other business activities,
- 2) The credit rating was based solely upon the merits of the obligor, security, or money market instrument being rated, and
- 3) The credit rating was an independent evaluation of the credit risk of the obligor, security, or money market instrument.

**Analyst Signature:**

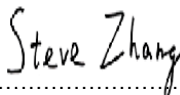
**Today's Date**

.....  
 Subramanian NG  
 Senior Rating Analyst

August 29, 2022  
 .....

**Reviewer Signature:**

**Today's Date**

.....  
  
 Steve Zhang  
 Senior Rating Analyst

August 29, 2022  
 .....

**(Note, see our senior report for additional disclosures.)**

## Sovereign Rating Methodology (Non-NRSRO)

**Scope and Limitations: Sovereign Issuer Credit Quality Ratings (CQR) are a forward-looking assessment of a sovereign's capacity and willingness to honor its existing and future obligations in full and on time. Sovereigns are assigned two CQRs: a Local-Currency CQR, which reflects the likelihood of default on debt issued and payable in the currency of the sovereign, and a Foreign-Currency CQR, which is an assessment of the credit risk associated with debt issued and payable in foreign currencies.**

**Key Rating Drivers: EJR's approach to sovereign risk analysis is a synthesis of quantitative and qualitative judgments. The quantitative factors EJR uses are:**

- Debt in relation to GDP.
- Surplus or deficit in relation to GDP.
- Debt plus potential under-funding of major banks in relation to GDP.
- Interest expense in relation to taxes.
- GDP growth.
- Foreign reserves in relation to debt.

Debt levels for many sovereign issuers have increased at an accelerating rate over the past decade, affecting implied ratings. EJR also considers unemployment levels and funding costs. EJR recognizes that no model can fully capture all the relevant influences on sovereign creditworthiness, meaning that the its sovereign ratings can and do differ from those implied by the rating model. Some of the qualitative factors that impact its ultimate assessment of credit quality include the flexibility, stability and overall strength of the economy, efficiency of tax collection, acceptance of contract law, ease of doing business, trade balances, prospects for future growth and health and monetary policy, and economic freedom. These subjective and dynamic qualitative issues are not captured by the model but affect sovereign ratings

*For additional information, please see Exhibit 2: Methodologies in EJR's Form NRSRO.*