Lianhe Ratings Global Limited (“Lianhe Global”) has assigned ‘A-’ global scale Long-term Issuer Credit Rating to Qingdao City Construction Investment (Group) Limited (“QCCI”). The Outlook is Stable.

Summary

The Issuer Rating reflects a high possibility that Shandong’s Qingdao municipal government would provide strong support to QCCI if needed, in light of the Qingdao government’s full ownership of QCCI, the high strategic importance of QCCI to Qingdao and the strong linkage between the Qingdao government and QCCI including management supervision, strategic alignment, and ongoing operational and financial support. In addition, the Qingdao government may face significant negative impact on its reputation and business and financing activities should QCCI encounter any operational or financial difficulties.

The Stable Outlook reflects our expectation that QCCI’s strategic importance would remain intact while the Qingdao government will continue to ensure QCCI’s stable operation.

QCCI’s business expansion has targeted to benefit Qingdao’s development rather than pure commercial decisions, although this has increased its business complexity and the difficulty of effective monitoring by the Qingdao government, especially in QCCI’s financial services segment primarily operated by its subsidiary Qingdao Chengtou Financial Holding Group Co., Ltd. (“QCFH”). We believe that in extremely stressed scenarios, QCCI would still receive strong support from the Qingdao government, while extension of the support to its commercially operated subsidiaries would be constrained.

Rating Rationale

Qingdao Government’s Full Ownership: The Qingdao government has 100% ownership of QCCI via the State-owned Assets Supervision and Administration Commission of Qingdao (“Qingdao SASAC”), which is appointed by the government to supervise state-owned entities. QCCI increased its registered capital to RMB6.9 billion at end-2018 from the initial capital of RMB3 billion (when it was established in 2008) after several capital injections.

High Strategic Importance: QCCI, Qingdao’s largest and most important state-owned investment and financing platform, was the largest local government financing vehicle (“LGFV”) in Shandong or ranked 11th by total assets as of end-2018 among all the LGFVs in China1.

With advantages in capital, financing and other resources as well as management strength, QCCI has been in a better position to take on major public projects among all LGFVs in Qingdao to support the city’s development. It has completed more than 60 infrastructure construction projects, including municipal roads, public housing, health care, education, and drainage pipe network. QCCI has been also actively seeking cooperation with the local governments within Qingdao and renowned enterprises to support Qingdao’s industrial

1 According to QCCI’s information
transformation and upgrading. To alleviate the financing difficulties of small- and medium-sized enterprises in Qingdao and maintain the regional financial market stability, QCCI has been developing its financial services business since 2014.

**Government Supervision and Strategic Alignment:** The Qingdao government and Qingdao SASAC have strong control and supervision over QCCI, including appointments of members of the board of directors, the supervisory committee, and senior managers, and approvals of major operating and financing plans. QCCI’s strategic planning and development have been aligned with the government’s economic and social policies, aiming to develop Qingdao into one of the most inhabitable, modern and international cities.

**Ongoing Government Support:** QCCI has received ongoing operational and financial support from the Qingdao government mainly in the form of land and other fixed-asset transfers and capital injections. QCCI has also continuously obtained important public projects from the Qingdao government and persistently received financial subsidies from the government mainly for supporting projects related to public infrastructure and social welfare services.

**Strong Economy and Fiscal Strength Underpin Qingdao:** Ongoing economic and industrial structural transformation and modernisation have supported Qingdao’s GDP growth at 7.4% in 2018 and 6.4% in 1H2019 (Shandong: 5.4% and China: 6.3%), respectively. The service industry has become the main GDP growth driver in recent years. We expect Qingdao’s geographic advantage owning one of the ten largest ports in the world and the government’s economic policies and planning (such as China’s Belt and Road Initiative) to underpin its future growth momentum.

Qingdao’s aggregate fiscal revenues are mainly derived from stable budgetary revenues with the tax revenue accounting for about 70% between 2016-2018 with the remainder mainly from the more volatile government fund income. Subsidies from higher government authorities have been minimal. Qingdao’s strong stand-alone fiscal strength with small budget deficits helps the government maintain a moderate debt ratio (i.e. total government debt divided by aggregate fiscal revenue) of 54.0%, compared with 74.2% of Shandong at end-2018. The Qingdao government had RMB127.2 billion outstanding debt at end-2018. Debt maturities were adequately distributed with no significant concentration in any single year.

**Increasing Business Complexity and Risks:** QCCI’s operations have become more complex following the ongoing business expansion into various industries, which would increase the difficulty of implementing its management and effective risk controls. The financial services business has grown rapidly since the establishment of QCFH in 2014 and has mainly focused on providing credit lending and guarantees to small- and medium-sized enterprises and individuals of a high-risk nature in general. The short operating history of its financial services business may expose QCCI to potential ineffective risk management due to a lack of sufficient relevant experience.

We also note that QCFH has significantly relied on its parent QCCI for funding as QCCI has been mainly conducting debt financing at the parent level for cost efficiency and effective debt monitoring. QCFH’s consolidated assets were RMB72.7 billion at end-2018, including some public funds such as the Qinggang fund for a steel factory relocation project.

**Moderately Weak Financial Matrix:** QCCI’s large debt-funded capital expenditure has resulted in continuous negative cash flow from its investment and high leverage, which is mitigated by its sufficient liquidity with cash on hand and standby credit facilities. QCCI’s financial leverage (total liabilities to assets) was 66.3% at end-2018. RMB20 billion of outstanding debt will be due by 2019 at end-September 2018, compared with QCCI’s
unrestricted cash position of RMB13.9 billion and unused bond quota of RMB6.5 billion at end-2018, and available credit lines of RMB35.1 billion at end-September 2018. The management has indicated to slow the growth in its financial services segment and moderately reduce its leverage.

Rating Sensitivities

We would consider downgrading QCCI’s rating if (1) there is perceived weakening in support from Shandong’s Qingdao government, particularly due to its reduced strategic importance with diminished government functions, or (2) commercial-oriented operations may significantly jeopardise QCCI’s overall credit profile, or (3) there is a significant reduction of the Qingdao government’s ownership of QCCI, or (4) there is a downgrade in our internal credit assessment on the Qingdao government.

We would consider upgrading QCCI’s rating if there is an upgrade in our internal credit assessment on the Qingdao government.
Operating Environment

Economic Structural Transformation Underpins Qingdao’s Strong GDP Growth

Ongoing economic and industrial structural transformation and modernisation supported Qingdao’s GDP growth at 7.4% in 2018 and 6.4% in 1H2019 (vs. Shandong province’s 5.4% and China’s 6.3%), respectively. The service industry has become the main GDP growth driver and industries have gradually moved to the middle and high end, resulting in a shift in Qingdao’s GDP composition. The tertiary industry (the service sector) accounted for the largest 57.2% of Qingdao’s 1H2019 GDP, followed by the secondary industry’s (comprising manufacturing and construction) 39.8%.

Qingdao is a municipality with an independent planning status enjoying provincial-level status in the economic planning and independent budgetary status directly linked to the central government. The city’s population had steadily grown with a total population of 9.4 million and an urban population of 6.9 million at end-2018. Qingdao’s total GDP was the highest among all the cities in Shandong province and only next to Shenzhen among all the five cities with an independent planning status between 2016-2018. GDP per capita of Qingdao was RMB128,459, about 1.7x the amount of Shandong and 2x of China in 2018.

Qingdao’s GDP and Fixed Asset Investment (RMB billion)

<table>
<thead>
<tr>
<th></th>
<th>2016</th>
<th>2017</th>
<th>2018</th>
<th>1H2019</th>
</tr>
</thead>
<tbody>
<tr>
<td>GDP</td>
<td>1,001.1</td>
<td>1,103.7</td>
<td>1,200.2</td>
<td>655.3</td>
</tr>
<tr>
<td>-Primary industry (%)</td>
<td>3.7</td>
<td>3.4</td>
<td>3.2</td>
<td>2.9</td>
</tr>
<tr>
<td>-Secondary industry (%)</td>
<td>41.6</td>
<td>41.2</td>
<td>40.4</td>
<td>39.8</td>
</tr>
<tr>
<td>-Tertiary industry (%)</td>
<td>54.7</td>
<td>55.4</td>
<td>56.4</td>
<td>57.2</td>
</tr>
<tr>
<td>GDP growth rate (%)</td>
<td>7.9</td>
<td>7.5</td>
<td>7.4</td>
<td>6.4</td>
</tr>
<tr>
<td>Fixed asset investment</td>
<td>745.5</td>
<td>777.7</td>
<td>839.2</td>
<td>-</td>
</tr>
<tr>
<td>Fixed asset investment growth rate (%)</td>
<td>13.7</td>
<td>7.4</td>
<td>7.9</td>
<td>7.5</td>
</tr>
<tr>
<td>Population (million)</td>
<td>9.2</td>
<td>9.3</td>
<td>9.4</td>
<td>-</td>
</tr>
</tbody>
</table>

Source: Qingdao Bureau of Statistics

Geographic Advantage and Government Policies Provide New Momentum

Qingdao is a major coastal city in the east of Shandong province on China’s Yellow Sea coast. It faces Korea and Japan across the sea and is located in the middle of Beijing and Shanghai. Its geographic location makes Qingdao one of the ten largest ports in the world, while Qingdao’s new airport (expected to be completed in 2019) may become a regional hub for Northeast Asia.

Following China’s Belt and Road Initiative, Qingdao is building close economic and trade ties with other countries and is a key player in the Shandong pilot area for a shift in economic structure. In June 2018, President Xi Jinping announced that the Chinese government supports building a demonstration zone in Qingdao for local economic and trade cooperation between China and the Shanghai Cooperation Organisation ("SCO") at the SCO summit in Qingdao. The SCO, established in 2001, currently includes eight member states, four observer states and six dialogue partners. As per the government’s planning, Qingdao aims to further strengthen the development of several industries, such as marine, smart home appliances, rail transit equipment, automobile manufacturing, finance, logistics, tourism, business services, and health care, to drive economic growth.
A Moderate Debt Level on Strong Fiscal Strength

Qingdao’s aggregate fiscal revenues are mainly derived from stable budgetary revenues with the tax revenue accounting for about 70% between 2016-2018 with the remainder mainly from more volatile government fund income. Subsidies from higher government authorities have been minimal. We expect ongoing economic development to support persistent growth in Qingdao’s budgetary revenues, while the government policies in the property market and land transfer planning remain key factors affecting government fund income.

Qingdao’s strong stand-alone fiscal strength with small budget deficits helps the government maintain a moderate debt ratio (i.e. total government debt divided by aggregate revenue) of 54.0%, compared with 74.2% of Shandong at end-2018. Qingdao had RMB127.2 billion outstanding debt at end-2018, including RMB70.6 billion of general obligations and RMB56.7 billion for special projects. Debt maturities were adequately distributed with no significant concentration in any single year.

### Qingdao’s Fiscal Condition (RMB million)

<table>
<thead>
<tr>
<th></th>
<th>2016</th>
<th>2017</th>
<th>2018</th>
</tr>
</thead>
<tbody>
<tr>
<td>Budgetary revenue</td>
<td>110,030</td>
<td>115,710</td>
<td>123,190</td>
</tr>
<tr>
<td>Budgetary revenue growth rate (%)</td>
<td>10.3</td>
<td>7.1</td>
<td>6.5</td>
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<tr>
<td>Tax revenue</td>
<td>76,140</td>
<td>82,390</td>
<td>90,590</td>
</tr>
<tr>
<td>Tax revenue (% of budgetary revenue)</td>
<td>69.2</td>
<td>71.2</td>
<td>73.5</td>
</tr>
<tr>
<td>Government fund income</td>
<td>44,520</td>
<td>53,440</td>
<td>88,550</td>
</tr>
<tr>
<td>Transfer payment</td>
<td>21,500</td>
<td>22,340</td>
<td>23,030</td>
</tr>
<tr>
<td>Aggregate revenue</td>
<td>176,670</td>
<td>192,130</td>
<td>235,740</td>
</tr>
<tr>
<td>Budgetary expenditure</td>
<td>135,290</td>
<td>140,300</td>
<td>156,120</td>
</tr>
<tr>
<td>Budget deficit¹ (%)</td>
<td>-23.0</td>
<td>-21.3</td>
<td>-26.7</td>
</tr>
</tbody>
</table>

¹ Budget deficit = (1 - budgetary expenditure / budgetary revenue) * 100%

Source: Qingdao Finance Bureau and Lianhe Global’s calculations

### Breakdown of Qingdao Local Government Debt by Maturity at End-2018

[Graph showing breakdown of debt by maturity]
Ownership Structure and Profile

Full Government Ownership and Experienced Management Team

QCCI was established in May 2008 under the No. 11 [2008] of the Qingdao Municipal People's Government and was funded by the net assets of Qingdao Dongao Development and Construction Group Limited, Qingdao Development and Investment Co., Ltd. and Qingdao Urban Development and Investment Centre belong to Qingdao SASAC. QCCI had increased its registered capital to RMB6.9 billion at end-2018 from the initial of RMB3 billion after several capital injections. Qingdao SASAC is the only shareholder with 100% ownership, and the Qingdao government is the ultimate controller.

The board of directors with two members appointed by Qingdao SASAC is the final decision-making authority of QCCI and is primarily responsible for determining the company's strategic and operating plans, investment and financing proposals, financial budget as well as management appointments. The supervisory committee of QCCI consists of two members (including the chairman) who are also appointed by Qingdao SASAC. To oversee different aspects of daily operations, QCCI has set up ten special committees under the board (including the Strategy and Investment Development Committee, Audit and Inspection, Budget Management, Remuneration and Appraisal, etc.) and 14 departments at the group company levels. The senior management team is experienced with over 12 years of experience on average in the management of large state-owned enterprises.

A Leading LGFV Supports Local Government Strategies, Livelihood Needs and Economic Development

QCCI is a state-owned investment holding company directly under the Qingdao government with total assets of RMB201.8 billion at end-2018. It owned 8 industrial groups (comprising 216 subsidiaries) and 3 directly owned subsidiaries and was the largest LGFV in Shandong or ranked 11th by total assets as of end-2018 among all the LGFVs in China. QCCI has been following Qingdao’s economic and social development strategies and aiming to develop Qingdao into one of the most inhabitable, modern and international cities. QCCI has historically focused on infrastructure construction, primary land development, development of affordable and commodity housing and sewage treatment and has diversified its business into financial services, photovoltaic power generation and basic materials trading business in recent years.

With advantages in capital, financing and other resources as well as management strength, QCCI has been in a better position to take on major public projects among all LGFVs in Qingdao to support the city’s development. QCCI has developed strong regional leadership in land development and infrastructure construction, especially in road construction. It has completed more than 60 infrastructure construction projects, including municipal roads, public housing, health care, education, and drainage pipe network, and is the only primary land development platform in designated areas of Qingdao. The engagement in primary land development allows QCCI to access opportunities for subsequent development, while potential appreciation of the land value accompanying Qingdao’s development would support QCCI’s future growth.

QCCI has also been actively seeking cooperation with the local governments within Qingdao and renowned enterprises to support Qingdao’s industrial transformation and upgrading, including the introductions of BAIC BJEV’s setup of a production base of new energy
vehicles in Laixi city and Xiuzheng Pharmaceutical Group's and Will Semiconductor Co. Ltd.'s investments in the Jimo district.

To alleviate the financing difficulties of small- and medium-sized enterprises in Qingdao and maintain the regional financial market stability, QCCI has been developing its financial services business since 2014, and has set up operations in providing guarantees, microfinance, financial leasing, entrusted loans, asset management, etc. QCCI has initiated the establishment of Qingdao “Hai Si” series of funds, targeting the “One Belt and One Road”, emerging industries and urban construction as the investment direction and currently has a total fund size of about RMB54 billion. QCCI also established a RMB18 billion Qinggang fund to solve the debt and staff placement problems of an old factory in Qinggang.

QCCI Faces Increasing Business Complexity and Risks

QCCI’s operations have become more complex following the ongoing business expansion into various industries with different kinds of risks, which would increase the difficulty of implementing its management and effective risk controls.

QCCI’s credit lending and guarantee business mainly focuses on small- and medium-sized enterprises and individuals in China which generally have limited financial resources or relatively weak credit profiles and therefore are more vulnerable to adverse competitive, economic or regulatory conditions. The short operating history of its financial services business may expose QCCI to potential ineffective risk management due to a lack of sufficient relevant experience. Competition from city and rural banks, guarantee companies, microfinance companies, etc. can also be intense in this segment.

QCCI’s commercial property development activities may be susceptible to significant fluctuations given the cyclical nature of China’s property market, affected by market demands, relevant regulatory policies and competition from large and established property developers. As a photovoltaic power producer, QCCI is subject to a variety of risks, including competition from conventional and other renewable energy companies and changes in regulations and policies, such as subsidies and other economic incentives provided by governments. QCCI acts as an intermediary between suppliers and purchasers for its basic materials trading business. Concentration of suppliers and purchasers is the key concern in this business segment, while inventory risk would be minimal as QCCI normally procures products upon receiving orders from its downstream customers.
Strategic Importance and Government Linkage

High Strategic Importance to Local Government and Economy

QCCI is Qingdao’s largest and most important state-owned asset management and infrastructure investment and operating platform. The company has undertaken various major businesses including infrastructure construction, building affordable housing, primary land and property development, and financial services to support the economic development in Qingdao. It is also responsible for financing and management of public projects such as road infrastructure and the relocation of the steel factory.

Strong Linkage with Qingdao Government

The Qingdao government and Qingdao SASAC have strong control and supervision over QCCI, including appointments of members of the board of directors, the supervisory committee, and senior managers, and approvals of major operating and financing plans. QCCI’s strategic planning and development have been aligned with the government’s economic and social policies; its business expansion has targeted to benefit Qingdao’s development rather than pure commercial decisions.

QCCI supports the Qingdao government to carrying out its policies, such as medical and health, education, infrastructure, etc., partially by acting as the financing platform, i.e. borrowing money from banks or capital markets for the public welfare related constructions. The major projects include Qingdao Jiaodong International Airport removal and construction, in which QCCI has invested RMB18 billion between 2016 and 2018, and the Qinggang factory moving project, in which QCCI has invested RMB10.5 billion by end-2018.

Ongoing Government Support

QCCI has received capital and asset injections from the Qingdao government and local government underneath (such as the Laixi government and Jiaozhou government). The injections include (but not limited to) equity capital, land or other fixed assets with RMB15.376 million, RMB4.026 million and RMB5.597 million received, in 2016, 2017 and 2018, respectively. QCCI has also persistently received financial subsidies from the government mainly for supporting projects related to public infrastructure and social welfare services. QCCI received a total of RMB418 million of government subsidies between 2016 and 2018.

The Chinese government usually has preferential tax policies offered to the sectors and regions where investments are encouraged by the state. Some of QCCI’s subsidiaries have been classified as encouraged industries and enjoyed favourable income tax rate and VAT rate.

<table>
<thead>
<tr>
<th>Illustrations of Government Support to QCCI (RMB million)</th>
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<tbody>
<tr>
<td></td>
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<tr>
<td>Asset/capital injections</td>
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<tr>
<td>Subsidies</td>
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<tr>
<td>Tax benefits</td>
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</tbody>
</table>

Source: QCCI and Lianhe Global’s calculations
Business Profile

Engaging in Various Government and Non-government Functions

In 2018, QCCI realised revenue of RMB11,672 million (versus RMB7,131 million in 2017) mainly from trading business, financial services and photovoltaic power generation business. Revenue in trading business more than doubled to RMB5,240 million in 2018 from RMB2,200 million in 2017.

Infrastructure Construction

QCCI is a major urban infrastructure construction and operating entity in Qingdao and has carried out more than 60 infrastructure projects for building and improving expressways, roads and other public infrastructure and facilities. QCCI’s wholly-owned subsidiary Qingdao Chengtou Construction Development (Group) Co., Ltd. is the major operating entity, which was restructured by amalgamating several group subsidiaries in May 2017.

The Qingdao government used to provide 20%-30% of the total investment in the form of capital injection and the remaining investment was financed by QCCI’s loan facilities granted by China Development Bank or other banks. Repayment of the principal of and the interest on the loans were funded with the public funds of the Qingdao government. QCCI has recently explored new models to participate in public infrastructure projects and may no longer incur debts to fund the development of public interest projects that do not generate profits by only contributing its execution experience. For public interest projects that generate profits, QCCI considers undertaking them either through a public-private partnership contract in which it acts on behalf of the local governments or through a joint venture with private investors in which it acts as a private enterprise.

Primary Land Development

Primary land development is one of the QCCI’s core business and is in line with Qingdao’s development and urbanisation plan, which has focused on the development of three key
areas around the Jiaozhou Bay, namely, the east, north and west coast areas. QCCI has been mainly responsible for the primary land development in the Sifang Happy Coastal City and Hongdao land development projects since 2008 as well as other areas in Qingdao. The Hongdao district is located in the north coast area where a high-tech park will be developed, while the Sifang Happy Coastal City project is a large-scale coastal area development project located in the Sifang district, west of the Jiaozhou Bay Highway. The two projects occupy an aggregate site area of approximately 31 square kilometres, and 2,191 mu land under the Sifang Happy Coastal City project had been developed at end-2018.

QCCI’s wholly-owned subsidiary Qingdao Chengtou Land Development Co., Ltd. and 80%-owned Qingdao Hongdao Development and Construction Group Co., Ltd. are the main subsidiaries responsible for primary land development projects.

Public Housing and Commercial Property Development

The property development business includes social housing and commercial property development. QCCI’s wholly-owned subsidiary Qingdao Chengtou Property Investment Holding (Group) Co., Ltd. undertakes the construction of property development. The completed public housing projects mainly consist of the economically affordable housing of Yunnan Road, Haian Xinyuan, and Ruihai Xinyuan as at end-September 2018. QCCI does not have new public housing projects under construction or proposed at present.

QCCI’s main commercial property development projects were the commercial housing part of the Ruihai Xinyuan project and the Blue Ocean Newport City project as of end-September 2018. Ruihai Xinyuan is located in the Happy Coastal City area, including a construction area of 65,000 square meters for public housing and a gross floor area of 257,000 square meters for private housing, with planned total investment of RMB1.68 billion. QCCI has invested RMB1.24 billion in Ruihai Xinyuan’s commercial property construction by end-September 2018. In addition, QCCI and Qingdao Kaichuang Ole Asset Management Co., Ltd. have jointly developed 36,000 square meters of commercial plots in Ruihai Xinyuan, with total planned investment of RMB300 million.

The Blue Ocean Newport City project is a commercial real estate development project, supporting the renovation of the Yunnan Road area. The construction includes residential and commercial buildings, of which the residential area is 449,000 square meters (includes 50,000 square meters for resettlement housing), and the commercial office building area is 331,000 square meters.

Financial Services

QCCI’s financial services business has grown rapidly since the establishment of its wholly-owned subsidiary QCFH in 2014. QCFH’s total consolidated assets increased by around 80% in two years to RMB72.7 billion at end-2018. Qingdao Urban and Rural Community Construction Finance Guarantee Co., Ltd, Qingdao Urban and Rural Construction Financial Leasing Co., Ltd., Qingdao Urban and Rural Construction Microfinance Co., Ltd, Qingdao Chengtou Asset Management Co., Ltd, Qingdao Huiquan Fortune Financial Information Service Co., Ltd, and Qingdao Huiquan Private Capital Management Co., Ltd. are the major operating entities (wholly or partially owned by QCFH) in this business segment.

QCCI’s financial services revenue increased to RMB3.7 billion in 2018 (from RMB1.1 billion in 2015), of which entrusted loans, leasing, small loans, and guarantee contributed RMB1.103 million, RMB919 million, RMB781 million and RMB103 million, respectively. The corresponding credit exposure increased 69% year-on-year to RMB34.3 billion at end-2018 (Lianhe Global’s estimate). Financial leasing represented the largest around one third of the exposure while microfinance had the highest growth from a low base.
Basic Material Trading Business

QCCI's basic material trading business is mainly operated by its subsidiaries Qingdao Chengtou Overseas Development Co., Ltd. and Qingdao Chengtou International Trade Co., Ltd. and has maintained low profit margins since the business launched in 2015. The trade products mainly include clean coal, raw coal and coke and most of the trade is domestic with notable concentration of suppliers and purchasers.

Photovoltaic Power Generation

QCCI launched photovoltaic power generation business in December 2015. QCCI's wholly-owned subsidiary Qingdao Chengtou Industrial Investment (Group) Co., Ltd. is responsible for the photovoltaic power generation business in cooperation with Qingdao New Energy Solutions Inc. ("NESI").

NESI constructs photovoltaic power generation stations through project companies it establishes. QCCI invests in the project companies with up to 50% shareholding and guides and supervises the project construction and capital use. After the stations are built up and ready to be connected to the grid, the project companies will enter into power purchase agreements with State Grid Corporation of China and QCCI will raise its capital to 92% ownership. The construction period of a photovoltaic power generation station is usually about 6 months, and the operation period is about 25 years. As of end-2018, total installed electricity generation capacity reached 1,337 mw, of which 941 mw is connected to the grid and generating power. In 2017 and 2018, QCCI generated power of 834 gwh and 1,266 gwh, respectively, with operating income of RMB667 million and RMB986 million, respectively.

Sewage Treatment

QCCI held six sewage treatment plants through Qingdao City Investment Environment and Energy Co., Ltd., Qingdao City Investment Daren Water Supply Co., Ltd. and Qingdao City Investment Shuangyuan Water Supply Co., Ltd. These plants provide sewage treatment for the Qingdao municipal area. On 1 August 2019, QCCI and Qingdao Water Group reached an agreement to restructure their sewage treatment related assets. As a result, QCCI has no longer consolidated the six plants into its financial report since 2019.
Financial Profile

Strong Asset Growth

QCCI’s total assets showed a strong compound annual growth rate of 17.5% to RMB201.8 billion at end-2018 from RMB146.2 billion at-end 2016 mainly due to ongoing investments in public projects and the high growth in its financial services business. The management has indicated to slow the growth in its financial services segment which should moderate QCCI’s future growth momentum.

Total construction in progress was RMB36 billion at end-2018 which mainly composed of reservoirs, roads, and bridges under construction. Other receivables were RMB28 billion at end-2018, of which about half were related to governments and government-related parties. Available-for-sale securities were RMB23 billion at end-2018, of which more than half were projects and fund investment related to support local economic development, including the Qinggang factory moving project with a total invested amount of RMB10.5 billion. Long-term receivables were RMB20.8 billion at end-2018, of which RMB12.3 billion were receivables for the Qingdao Jiaodong International Airport project, and the rest were mostly financial leasing receivables.

![Asset Breakdown Chart (Total assets: RMB201.8 billion at end-2018)](chart)

Source: QCCI's annual report and Lianhe Global's calculations

High Leverage with Diversified Funding Sources

QCCI’s large debt-funded capital expenditure resulted in its high leverage (total liabilities to assets) which was 66.3% at end-2018 (compared with 59.3% at end-2016). QCCI’s liabilities were mainly composed of long-term loans, bonds payables, special account payables and long-term loans due within one year, accounting for 36%, 21%, 14% and 9%, respectively, of total liabilities (RMB133.8 billion, including total debts of RMB105.1 billion) at end-2018. Most of the special account payables were funds from financial institutions for public projects and to be repaid by the Qingdao government, while QCCI has classified its perpetual debts (RMB9.5 billion as of end-2018) as equity in the balance sheet.

QCCI has been mainly conducting debt financing at the parent level for cost efficiency and effective debt monitoring and implementing stringent approval procedures for debt financing by its subsidiaries. QCCI has diversified funding sources, including bank and non-bank
loans, onshore RMB bonds and offshore USD bonds, to support its business development and debt repayments. QCCI maintains long-term stable relationships with a number of financial institutions, including policy and state-owned banks, and non-bank financial institutions.

**Reliance on Investment Income for Profits**

QCCI's revenue experienced rapid growth to RMB11,672 million in 2018 from RMB5,541 million in 2016, with a compound annual growth rate of about 45%. The fast revenue growth was mainly driven by the expansion in financial services and trading businesses. Recurrent earnings have been minimal while more volatile investment income remains the major earnings contributor, with RMB1,277 million, RMB1,459 million and RMB1,501 million realised in 2016, 2017 and 2018, respectively.

**Sufficient Liquidity**

QCCI had sufficient liquidity for short-term debt repayment, as it had unrestricted cash of RMB13.9 billion and unused bond quota (approved by the regulator) of RMB6.5 billion at end-2018, and credit facilities of RMB103.6 billion (RMB35.1 billion unused) at end-
September 2018, compared with its outstanding debt of RMB20 billion (end-September 2018) due by end-2019.

QCCI’s financing cost was primarily in the range of 4%-7%, and the average financing cost for outstanding bonds was about 4.8% as of end-September 2018. Its interest coverage (EBITDA over Interest) was low in the past three years at below 1.5x.

<table>
<thead>
<tr>
<th>Debt Maturity Profile at End-September 2018 (RMB million)</th>
<th>Amount</th>
<th>Percentage</th>
</tr>
</thead>
<tbody>
<tr>
<td>4Q2018</td>
<td>5,534</td>
<td>5.3%</td>
</tr>
<tr>
<td>2019</td>
<td>14,466</td>
<td>13.8%</td>
</tr>
<tr>
<td>2020</td>
<td>21,447</td>
<td>20.5%</td>
</tr>
<tr>
<td>2021 and thereafter</td>
<td>63,320</td>
<td>60.4%</td>
</tr>
<tr>
<td>Total</td>
<td>104,767</td>
<td>100%</td>
</tr>
</tbody>
</table>

Source: QCCI and Lianhe Global’s calculations
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