FINANCIAL AND ECONOMIC ANALYSIS

A. Financial Analysis

1. The financial analysis is guided by the *Financial Due Diligence for Financial Intermediaries: Technical Guidance Note (2018)* of the Asian Development Bank (ADB).[1] The proposed sovereign-guaranteed financial intermediation loan (FIL) to the People's Republic of China (PRC) will provide ADB funds to the Bank of Xingtai, through the Hebei Provincial Government and Xingtai City Government, to catalyze and demonstrate the use of green finance in Hebei province. The Bank of Xingtai will assume the credit risk while onlending to the final subborrowers (e.g., local industries and manufacturers). The objectives of the financial analysis are therefore to assess the capacities and financial sustainability of the Bank of Xingtai as a corporate entity to implement the proposed ADB project. On the qualitative side, the institutional assessment includes financial management, corporate governance, and risk management. On the quantitative side, the best indicators of a commercial bank's financial viability are its capital adequacy, asset quality, management quality, earnings, liquidity, and sensitivity to market risk (CAMELS). For the Bank of Xingtai, these indicators were satisfactory during 2015–2019.

1. Institutional Assessment

2. **Financial management.** The Bank of Xingtai's financial management in terms of planning, directing, monitoring, organizing, and controlling institutional resources is satisfactory. The systems of financial accounting, assets (loan books and nonperforming assets) management, credit management, liquidity and treasury management, financial reporting, internal controls, and internal and external audit are adequate for its business operations. The financial reporting and monitoring follow the regulatory requirements and are performed on a regular and timely basis. The Bank of Xingtai's core banking system has been upgraded since December 2019 to improve, among others, financial and risk management efficiency. However, since the Bank of Xingtai's business operations are confined to Hebei province, it has neither a national nor an international banking scope. The Bank of Xingtai has not implemented any international development assistance projects and may have initial difficulties with project financial management procedures, project monitoring and review requirements, and audit requirements. It also does not have a full-fledged foreign currency operation. The overall pre-mitigation financial management and control risks are moderate. The Bank of Xingtai has agreed to implement an action plan for key financial management risks that have been identified in the financial management assessment report.[2] The capacity development component of the project, combined with internal training programs, will help strengthen its overall financial management capacity.

3. **Corporate governance.** The Bank of Xingtai has a relatively sound corporate governance structure. It is a regulated and licensed city commercial bank with a diverse shareholding structure. As of December 2019, total government shareholding accounts for 15.19% and state-owned enterprises' shareholding accounts for 21.29%. There are nine board directors, including two independent directors. There are five board committees: risk management, related party transactions, assets and liabilities management, audit, and information technology management. The supervisory board has two external members and two staff supervisory members. The Bank of Xingtai is largely compliant with the national corporate governance guidelines from the 162 corporate governance evaluation criteria and 5 classification criteria of the China Banking and

[1] ADB. 2018. *Financial Due Diligence for Financial Intermediaries: Technical Guidance Note*. Manila.
[2] Financial Management Assessment Report (accessible from the list of linked documents in Appendix 2 of the report and recommendation of the President).

Insurance Regulatory Commission (CBIRC). The Bank of Xingtai's internal control environment is sound. There is a robust "Chinese wall," a virtual barrier built to block the exchange of information between lending and credit functions to avoid conflict of interest. Under the project, ADB will introduce to the Bank of Xingtai comply domestic corporate governance guidelines and international best practices, such as the Bank of International Settlements' corporate governance principles for banks; the G20/Organisation for Economic Co-operation and Development Principles of Corporate Governance; and the Principles for Responsible Investments and environment, social, and governance framework. ADB will help the Bank of Xingtai further assess and improve its corporate governance practices through such steps as an increase in the ratio of independent directors, the appointment of a chief risk officer, and the engagement of a governance advisor.

4. **Risk management.** With the increase of its business volume and sophistication, the Bank of Xingtai continues to expand its risk management system, including through the establishment of a comprehensive risk framework, which defines major risk management responsibilities and implements various risk management functions. The risk management committee covers credit, liquidity, market, operational, and strategic risks. Comprehensive risk management policies and procedures ensure that operational limits match the levels of capital, assets quality, and profitability targets. The upgrade of the Bank of Xingtai's core banking system in December 2019 has significantly improved its credit and market risk management capability. The Bank of Xingtai's funding base is stable, and about 90% of the total liabilities are customer deposits. However, the Bank of Xingtai has no extensive foreign currency operations and limited capacity to hedge foreign currency borrowing (e.g., it has no derivative trading license). In addition, without long-term funding sources, the bank's ability to extend long-term project and corporate finance loans is limited without incurring significant maturity mismatches. Future business expansion to include innovative green finance projects and international foreign currency debts would potentially expose the Bank of Xingtai to new credit, market, and interest rate risks (see the CAMELS rating model and associated analysis from paras. 5–10). However, more diversified asset classes from the green finance portfolio will also reduce the Bank of Xingtai's operations risk, and the ADB's local currency conversion option will be available during the loan repayment period to help hedge the foreign exchange risk exposure.[3]

2. Financial Performance

5. **Capital adequacy.** According to the PRC Regulations for Commercial Bank Capital Management, for non-systemically important commercial banks,[4] the PRC's capital adequacy ratio (CAR) requirements are 10.5% (compared to the Basel III requirement of 10.5%), 8.5% for tier 1 CAR (Basel III requirement: 7.5%), and 7.5% for tier 1 core CAR (Basel III requirement: 6.5%). From 2014 to 2019, the Bank of Xingtai's CARs were above the respective regulatory requirements (Table 1). Because of rapid asset growth in 2016, in 2017 the Bank of Xingtai's CARs were declining but still above the regulatory requirements. As a result, in 2018, the Bank of Xingtai implemented rapid capital expansion through new share issues of CNY1.02 billion, which increased its registered capital from CNY1.18 billion at the end of 2017 to CNY2.20 billion at the end of 2018. In 2020, the Bank of Xingtai issued subordinated debts in an amount of CNY400 million (€49 million) to strengthen its tier 2 and total CARs. The Bank of Xingtai increased its equity capital from CNY70 million in 2002 to CNY2,200 million in 2019 in response to its business

[3] ADB. 2008. *Guidelines for Conversion of Loan Terms for ADB LIBOR-Based Loans*. Manila.

[4] The systemic-important commercial banks in the PRC include about 30 largest state banks, joint-stock banks, and city commercial banks in major cities that are based on the PBOC evaluation criteria. All other banks are non-systemically important commercial banks.

expansion. It is able to raise capital from its existing shareholders or new shareholders to maintain a relatively high level of capital adequacy. Another measure of capital adequacy is the leverage ratio. The leverage ratio of the Bank of Xingtai's tier 1 capital was 6.33% in 2015, 4.19% in 2016, 4.44% in 2017, and 6.63% in 2018, all significantly higher than the 4% PRC requirement and the 3% Basel III requirement. In summary, the Bank of Xingtai's CARs and leverage ratios are adequate compared with both domestic and international standards.

Table 1: Bank of Xingtai Capital Adequacy Ratios

(%)

Item	PRC Regulation	Basel III Requirement	2014	2015	2016	2017	2018	2019
CAR	≥10.5	≥10.5	11.89	12.25	12.01	11.04	13.38	12.52
Tier 1 CAR	≥8.5	≥7.5	10.79	11.15	11.04	9.9	12.47	11.37
Tier 1 core CAR	≥7.5	≥6	10.79	11.15	11.04	9.9	12.47	11.37
Leverage ratio	≥4	≥3		6.33	4.19	4.44	6.63	

CAR = capital adequacy ratio, PRC = People's Republic of China.

Sources: Bank of Xingtai. *Audited annual reports*. Xingtai (5 years: 2015–2019).

6. **Asset quality.** The Bank of Xingtai's asset quality is acceptable. The gross nonperforming loan (NPL) ratios, without factoring loan provisioning, increased from 1.4% to 2.8% during 2015–2019 (Table 2).[5] There was an accounting adjustment in 2018 to comply with the 90-day overdue rule for meeting the CBIRC loan classification requirement, causing the NPL level in 2018 and 2019 to rise above the trend line. However, this adjustment is consistent with the principles of the Prudential Treatment of Problem Assets as published by the Basel Committee on Banking Supervision in 2017.[6] As a result, the Bank of Xingtai's NPL figures prior to 2015–2017 period should be considered slightly higher, but within the regulatory threshold of 5.0% (Table 2). The Bank of Xingtai's loan provisioning is also acceptable, with the provision coverage ratio and the provision-to-loan ratio mostly meeting the regulatory requirements (Table 2).[7] To control NPLs and mitigate possible losses, the Bank of Xingtai has been taking corrective measures by reducing single borrower and sector exposure limits, diversifying loan portfolios, strengthening recovery, and expanding loan provisions. In terms of recovery, the Bank of Xingtai conducts frequent door-to-door visits for collection and collateral auctions through the local courts. In terms of disposal, the Bank of Xingtai sells the securitized NPLs at a discount to asset management companies. Any remaining NPLs on the books are normally charged off. The bank management has been improving asset quality in light of the rapid asset growth, especially since 2017. It is reasonable to expect that the Bank of Xingtai's asset quality indicators will remain sound during project implementation.

Table 2: Bank of Xingtai Asset Quality Ratios

(%)

	PRC Regulation	Basel III Requirement	2015	2016	2017	2018	2019	Average
Total asset growth			4.5	76.4	17.2	2.5	11.2	22.4
Loan advances growth			19.0	25.1	34.5	47.1	17.7	28.7
Gross NPL ratio	≤5.0		1.4	1.6	1.6	2.1	2.8	1.9
Provision coverage	≥150.0	≥150.0	205.8	176.8	200.0	148.6	153.5	176.9
Provision-to-loan ratio	≥2.5	≥2.5	3.0	2.7	3.2	3.1	4.9	3.4

[5] The average NPL rate of the banking sector was 1.67% in 2015, 1.74% in 2016, 2017, and 1.83% in 2018. China Banking Regulatory Commission. *Annual monitoring reports*. Beijing (5 years: 2013–2018). Average NPL rate among city commercial banks by end of 2019 is 2.32%. Source: CBIRC website

[6] Basel Committee on Banking Supervision. 2017. *Prudential treatment of problem assets – definitions of non-performing exposures and forbearance*. Basel.

[7] Provision coverage ratio is defined as pretax income + loan loss provision]/net charge-offs.

NPL = nonperforming loan, PRC = People's Republic of China.
Sources: China Banking and Insurance Regulatory Commission; Bank of Xingtai. 2019. *Financial management questionnaire*. Xingtai; and Bank of Xingtai. *Audited annual reports*. Xingtai (5 years: 2015-2019).

7. **Management quality.** The Bank of Xingtai's management quality is detailed in paras. 2–4. Financial performances are presented in paras. 5, 6, 8, 9, and 12. In terms of the Bank of Xingtai's overall institutional performance, the annual loan book grew from 19.0% in 2015 to 47.1% in 2018, significantly above the industry average of 13.0% in 2018 (Table 3). Net assets (bank capital) have also grown to match the rising lending volume during 2015–2019. Because of the rapid asset growth, the net profit (interest) margins decreased from 29.4% in 2015 to 8.2% in 2019. The cost-to-revenue ratios, a critical management quality indicator, were 39.2% in 2017 (compared to the 2017 banking sector average of 31.6%), which worsen to 45.3% in 2018 (compared to the 2018 banking sector average of 30.8%) and then improved to 36.98% in 2019. Overall, the management of the Bank of Xingtai is capable.

Table 3: Bank of Xingtai Operations Ratios
(%)

Item	Bank Industry Average		2015	2016	2017	2018	2019	Average
	2018	2019						
Loan advances growth	13.0	(7.8)	19.0	25.1	34.5	47.1	17.7	28.7
Net asset growth			11.9	15.8	19.1	60.2	3.0	22.0
Net profit margin			29.4	30.0	32.3	19.4	8.2	23.9
Growth of net profit			(15.5)	(3.6)	56.0	(41.7)	(47.7)	(10.5)
Cost-to-revenue ratio	30.8		41.5	49.7	39.2	45.3	36.98	42.52

( ) = negative.
Sources: China Banking and Insurance Regulatory Commission; and Bank of Xingtai. 2019. *Financial management questionnaire*. Xingtai; and Bank of Xingtai. *Audited annual reports*. Xingtai (5 years: 2015–2019).

8. **Earnings.** The Bank of Xingtai's return on equity was 18.0% in 2017 (compared with the banking industry average of 12.6%) and 7.5% in 2018 (compared with the banking industry average of 11.7%). The relatively lower return on equity in 2018 was because of (i) the one-time reclassification of NPLs (banking industry-wide), which resulted in a 41.7% decline in net profits; and (ii) an increase in the number of equity shares from 1,179 million in 2017 to 2,204 million in 2018, which resulted in an increase of shareholders' equity from CNY405 million (€50 million) to CNY674 million (€83 million) during the same period (based on the exchange rate in August 2020). The Bank of Xingtai's return on assets was uneven and deteriorated during 2016–2019 also because of the one-time reclassification of its NPLs. Looking at the historical performance and medium-term business plan, the Bank of Xingtai is expected to tighten its credit risk management and expand its business lines. The Bank of Xingtai is working toward improving its earnings, as evidenced by its seeking this ADB assistance and its recent investments in a new core banking system.

Table 4: Bank of Xingtai Earning Ratios
(%)

Item	Bank Industry Average		2015	2016	2017	2018	2019	Average
	2018	2019						
Net Interest margin	2.18	2.09	2.6	2.3	2.6	2.4	2.7	2.5
Growth of net profit			(15.5)	(3.6)	56.0	(41.7)	(47.7)	(10.5)
ROA	0.9	0.7	1.1	0.8	0.8	0.5	0.2	0.8
ROE	11.7		15.9	13.5	18.0	7.5	3.1	13.3

ROA = return on assets, ROE = return on equity.
Sources: China Banking and Insurance Regulatory Commission; Bank of Xingtai. 2019. *Financial management questionnaire*. Xingtai; and Bank of Xingtai. *Audited annual reports*. Xingtai (5 years: 2015–2019).

9. **Liquidity.** The Bank of Xingtai's liquidity coverage ratio (LCRs) was 137% in 2014 (compared to the regulatory requirement that year of 60%), 189% in 2015 (regulatory requirement: 70%), 187% in 2016 (regulatory requirement: 80%), and 425% in 2017 (regulatory requirement: 90%). As a regional city commercial bank without a diversified product line, during 2016–2018 the Bank of Xingtai benefited from a relatively large individual deposit funding base, which accounted for an annual average of more than 60% of total liabilities. In the fourth quarter of 2019, the total deposits accounted for 91% of total liabilities. Wholesale borrowing, including from the People's Bank of China (the central bank) only accounted for about 3% of the total liabilities. The Bank of Xingtai's ratios of assets over liabilities during 2015–2019 were stable, well above the regulatory requirement of 25% (Table 5). In addition, the Bank of Xingtai's annual average loans-to-deposits ratio of 58% during 2015–2019 was also significantly better than the regulatory ceiling ratio of 75%. These indicate that the Bank of Xingtai has a sufficient stable funding base to cover any liquidity shortfall. From May 2018, the CBIRC no longer required certain (e.g., regional and smaller) commercial banks such as the Bank of Xingtai to report the LCR but instead required them to report the high-quality liquid asset adequacy ratio (HQLAAR), because the HQLAAR is more appropriate for supervising the liquidity situation of regional banks in smaller scale. The official HQLAAR requirement is 90% for 2018, and 100% by 2020, and the Bank of Xingtai's HQLAAR was 112% for 2018 and 160% in 2019, satisfying the regulatory requirement. The Bank of Xingtai has a very high deposit structure, a good current ratio, a good LCR/HQLAAR, and highly liquid investments. Although it has moderate maturity mismatch risk, this risk is well managed and supervised, and the bank's overall liquidity risk is assessed as acceptable.

Table 5: Bank of Xingtai Liquidity Ratios

(%)

Item	**PRC Regulation**	**Basel III Requirement**	**2015**	**2016**	**2017**	**2018**	**2019**	**Average**
LCR	90	≥100.0	188.9	187.1	425.3	n.a	n.a	
HQLAAR	≥100.0	≥100.0				112.2	159.9	136.0
Current ratio	≥25.0		55.2	58.6	70.2	60.0	66.9	62.2
Loan-to-deposit ratio	≤75.0		53.5	50.9	54.5	64.7	67.1	58.1

HQLAAR = high-quality liquid asset adequacy ratio, LCR = liquidity coverage ratio, PRC = People's Republic of China.
Sources: China Banking and Insurance Regulatory Commission; Bank of Xingtai. 2019. *Financial management assessment questionnaire*. Xingtai; and Bank of Xingtai. *Audited annual reports*. Xingtai (5 years: 2015–2019).

10. **Sensitivity to market risk.** The Bank of Xingtai's risk exposures to foreign exchange rates and foreign interest rates are limited. It operates in Hebei province only and does not have foreign currency-denominated lending or foreign investments. Therefore, its sensitivity to foreign interest rate fluctuation is limited. With regard to renminbi interest rate risk, most of the Bank of Xingtai's loans are priced at floating rates (with reference to prime lending rates as published by the People's Bank of China), enabling it to earn a relatively fixed net interest margin from each loan whether or not the benchmark rates are adjusted. Its renminbi-denominated investment returns are stable because the Bank of Xingtai continuously carries out interest sensitivity analysis and maturity gap analysis to identify potential interest rate risk. On the basis of continuous monitoring, it has a dynamic adjustment for any risk exposure over the upper limit for interest risk tolerance. The system for monitoring the interest rate risk has been in place since 2014.

11. Overall, in addition to the ADB CAMELS rating model provided in para. 5–10, the Bank of Xingtai's domestic credit rating was AA in June 2019 respectively, both with a stable outlook. This rating was based on the assessment of China Chengxin International Credit Rating Company, one of the PRC's top five domestic rating agencies.

B. Financial Projections

12. **Base case projections.** The Bank of Xingtai's financial projections for 2018–2023 indicate strong operating performance in terms of deposit base, equity base, loan book, and total net income (Table 6). While the projections are aligned with historical trends, the annual borrowing includes the proposed ADB loan of €170 million.

Table 6: Bank of Xingtai Financial Projections, 2018–2023

CNY'(000) Unless otherwise indicated	2018	2019	2020	2021	2022	2023
Net customer loans	47,661,125	52,427,237	57,669,961	63,436,957	69,780,653	76,758,718
Earning assets [a]	69,477,179	77,733,860	87,025,643	97,489,549	109,281,659	122,579,885
Total assets	92,743,872	102,935,388	114,389,322	127,277,609	141,797,416	158,175,071
Deposits	76,374,075	82,348,310	91,511,457	101,822,087	113,437,933	126,540,057
Borrowings	5,043,178	7,388,077	7,490,764	7,582,100	7,647,745	7,678,822
Noninterest bearing liabilities	4,585,596	5,450,697	6,482,367	7,712,904	9,180,889	10,932,415
Retained earnings	1,456,760	2,007,850	2,546,037	3,121,755	3,744,013	4,414,060
Other equity	5,284,263	5,740,453	6,358,696	7,038,763	7,786,836	8,609,717
Total liabilities and equity	92,743,872	102,935,388	114,389,322	127,277,609	141,797,416	158,175,071
Net income	410,382	787,271	768,839	822,454	888,941	957,210
Return on assets (%)	0.45%	0.80%	0.71%	0.68%	0.66%	0.64%
Net interest margin (%)	2.37%	2.34%	2.24%	2.15%	2.06%	1.96%
Debt-to-equity ratio (value)	12.08	11.58	11.12	10.77	10.50	10.31

ADB = Asian Development Bank.

Note: The key assumptions are as follows: (i) 10% annual loan growth rate (compared with the historical average of 28.5%) and 16% annual growth rate (historical average: 57.1%) of other interest-bearing investments, (ii) 10% of equity capital increase each year, (iii) 9.5% average annual growth rate of interest income, (iv) ADB loan's impact is minimal to the Bank of Xingtai's earnings on the condition that credit risk is well managed (except that 1% of the outstanding ADB loan will be set aside each year as a loss reserve), (v) loan loss reserves comprise 3.0% of customer loans, (vi) general and administrative expenses (except loss reserves) will grow at 5% per annum, and (vii) the average income tax rate will be 24.5%. These assumptions are aligned with or are more conservative than the historical records of the Bank of Xingtai.

[a] Comprised of loans and available-for-sale securities.

Source: Asian Development Bank estimates.

13. **Scenario analysis.** ADB conducted scenario analysis on the Bank of Xingtai's ability to withstand financial shocks. Two scenarios were simulated to assess the impact of a shrinking interest margin and a rising NPL level. The result of the scenario analysis indicates that the Bank of Xingtai can sustain its operations even under severe external shocks. In the first scenario, to incur a loss, the Bank of Xingtai would have to suffer a decline of net interest margin by 57%, or from 2.37% (as of the end 2018) to 1.01%. This is unlikely. In the second scenario, to incur a loss, the Bank of Xingtai would have to suffer a rise in NPL ratio by 47%, or from 2.09% (as of the end 2018) to 3.06%. This is equally unlikely.

14. **Interest rate cost margin.** In terms of the Bank of Xingtai's estimated funding costs and interest spreads, the underlying assumptions are as follows: (i) subloans to AAA-rated (domestic) borrowers at about 7%–8% for tenors of 5 years, (ii) no ADB loan maturity premium, (iii) exclusion of ADB commitment charge, (iv) no foreign exchange hedging costs such as cross currency and interest swap costs, (v) no interest rate fluctuations, and (vi) no foreign exchange rate fluctuations. The comparison of the interest rates between dollar and euro funds and yuan funds are indicative as they ignore the foreign exchange risk.

Table 7: Comparison of Interest Margins between the Three Project Currencies
(%)

	Item (August 2020 data)	United States Dollar	Euro	CNY
A	ADB funds' cost base: 6-month LIBOR (USD and EUR) and SHIBOR (CNY)	0.28	(0.49)	2.84
B	ADB lending margin	0.50	0.50	0.50
C	ADB (rebate) or surcharge (July 2020)	0.02	0.02	
D	**Total ADB funding cost (A+B+C)**	0.80	0.03	3.34
E	Bank of Xingtai's 5 years deposit rate	4.25 (averaged published rates)		
F	Lending rate	7.50 (averaged)		
G	Net interest margin for Bank of Xingtai funds (F-E)	3.25		
H	Net interest margin for ADB funds (F-D)	6.70	7.47	4.16
I	Net interest margin comparison between Bank of Xingtai's own funds and ADB funds (H-G)	3.45	4.22	0.91

( ) = negative, ADB = Asian Development Bank, LIBOR = London interbank offered rate, SHIBOR = Shanghai interbank offered rate, USD = United States dollar.
Note: As of March 2020.
Source: Asian Development Bank estimates.

C. Economic Analysis

15. Consistent with the ADB approaches for economic analysis of financial intermediation loans, the economic analysis comprises a qualitative discussion due to the lack of a confirmed subproject pipeline, highlighting the key economic benefits emanating from the proposed interventions. However, once the subprojects for ADB financing are identified during project implementation, they will be subject to economic analysis following ADB's Guidelines for the Economic Analysis of Projects.[8]

16. Hebei province is the PRC's industrial heartland for steel, petrochemicals, cement, glass, and leather. As a result, it is one of the most polluted provinces in the PRC. As of December 2018, four cities in Hebei province were among the 10 most polluted cities in the PRC: Shijiazhuang (second), Xingtai (third), Handan (fifth), and Baoding (eighth).[9] Transforming the polluting industrial and manufacturing base in Hebei province is a national development priority, as highlighted in the State Council's Three Years' Action Plan to Winning the Battle for Blue Sky.[10] With unparalleled local presence, the Bank of Xingtai has a strong home market advantage to support a steady green finance deal flow from the traditional industrial and manufacturing bases. Nationally, the annual average green finance volume of $234 billion from the 21 largest commercial banks during 2013–2017 accounted for 67% of the total green finance lending demand of $350 billion in the PRC's banking sector in 2018, leaving a financing gap of $116 billion.[11]

17. The project will contribute to meeting the $116 billion green finance gap in the PRC by using the ADB funds to catalyze greater private sector and commercial finance. The Bank of Xingtai is a city commercial bank that typifies the green finance challenges among the city and rural commercial banks. The 133 city commercial banks, 1,424 rural commercial banks, 782 rural

[8] ADB. 2017. *Guidelines for the Economic Analysis of Projects*. Manila.
[9] Government of the PRC, Ministry of Ecology and Environment. 2019. *December 2018 PRC City Air Quality Report (in Chinese language).* Beijing.
[10] Government of the PRC, State Council. 2018. *Three Years' Action Plan to Winning the Battle for Blue Sky (in Chinese language)*. Beijing.
[11] China Association of Circular Economy. 2019. *China Green Finance Development Research Report 2019 Published the Green Finance Gap was CNY800 billion in 2018 (Chinese language)*. News release. 3 May.

cooperatives, and 1,622 village banks account for 25.9% of total PRC banking sector assets. With the wide reach to local industries and manufacturers in the PRC, the city and rural commercial banks have unparalleled home market advantages to promote green finance. Through ADB's financing support, the project will demonstrate a successful business model to other city and rural commercial banks to expand green finance in the PRC and beyond.

18. The project's economic rationale is based on the need to correct market and nonmarket failures of pollution and environmental degradation arising from industrial and commercial enterprises' operation. In other words, these enterprises' financial returns have not adequately addressed the social costs of the negative externalities from their negative environmental (social and governance) impacts. The financing of environmentally advanced technologies would be more costly, and it requires financial support in terms of subsidies, concessions, and other monetary and nonmonetary incentives. However, due to the nature of financial intermediation loan projects in which potential subprojects are yet to be confirmed, the economic analysis at the subproject level will be conducted during the project implementation.

19. However, the project's economic benefits can be discussed, and they include both incremental and non-incremental benefits. Incremental benefits will include expanded supply of clean energy, greater use of more energy-efficient resources, and cleaner and more technically advanced production lines to accommodate additional market demand. Non-incremental benefits include the replacement of fossil fuels and energy savings from increased use of more technically advanced and cleaner production methods that provide for net pollution reduction. The project will also have external benefits, which are the environmental benefits from the emission reduction of carbon dioxide, nitrogen oxides, sulfur oxides, dust emissions, particulate matter 2.5 micrometers or less in diameter, and particulate matter 10 micrometers or less in diameter. Once the economic analysis of a subproject is feasible, the environmental benefits from local pollutant emissions abatement will be valued by estimating premature mortality effects (labor loss) associated with the pollutant emissions.[12] The cost of technology obsolescence and replacement, and costs associated with the diversion of production inputs, can be included in the analysis to capture the economic costs and benefits of the subprojects.

[12] The estimated costs of premature mortality are calculated by multiplying the estimated mortality reduction effect of single pollutant emissions reductions by the net present value of lost wages per person, and divided by total emission reductions. Reference emission levels were derived from the Emissions Database for Global Atmospheric Research version 4.3, and the Fast Scenario Screening Tool (developed by the European Commission's Joint Research Centre) was used to evaluate the impact of pollutant dispersion on human health (effect of single pollutant emission reductions). The age of premature mortality was derived from the Global Health Data Exchange tool.