FINANCIAL ANALYSIS

A. Introduction

1. The financial due diligence includes (i) a brief overview on financing of education, and technical and vocational education and training (TVET), including a brief background and the challenges of the regulatory and funding framework for TVET; (ii) an assessment of the financial position of the executing agency, Baise Municipal Government (BMG), and the implementing agency, Baise University; (iii) a fiscal impact analysis of BMG and a financial sustainability analysis of Baise University; and (iv) a financial management assessment (FMA) of BMG and Baise University, in accordance with Asian Development Bank (ADB) guidelines.[1]

B. Overview of Financing of Education, and Technical and Vocational Education and Training

2. **Country context.** Government financing for education and training in the People's Republic of China (PRC) has been historically low by international standards measured by the percentage of gross domestic product (GDP). In 1995, at all government levels, the PRC spent about 2.5% of its GDP on education and 30% of its GDP on physical investment. These figures were 5.4% and 17% in the United States, respectively. By 2002, public spending on education in the PRC increased to 3.3%. By 2012, it further increased to 4.3, or 16.1% of all public fiscal expenditures, according to official sources.[2] Although increasing rapidly, the level is still lower than most developed countries (e.g., the United States' level is 5.5%, and Western European countries average above 6%). Local governments cover more than 80% of total public spending on education.[3] In the PRC, local governments are responsible for vocational and technical education. Central government funding for TVET is very limited and only for special projects for selected key institutions. For most TVET institutions, financing has been inadequate for the improvements needed in faculty, curriculum, pedagogy, equipment, and facilities. Based on international comparison with OECD and other middle income countries TVET tends to be more expensive than general education on a per student basis due to higher demand for equipment and other facilities. However, in the PRC, expenditure per student for TVET is lower, indicating a lower investment in these areas.

3. Returns to education are surprisingly high in the PRC. Research shows that the return to higher and TVET education is as high as 30% to 40%.[4] The wage premium paid to skilled workers was low historically due to wage policy effects. Since 2000, market wage rates for skilled workers have become more in line with their productivity. Recent studies on the return of education in the PRC, using market wage rates, show that there is a 7.5% return on wage level per year of post-secondary education.[5] This translates to a 30% incremental wage level for a regular 4-year college education.

4. **Financing of education and technical and vocational education and training in the Guangxi Zhuang Autonomous Region.** In the Guangxi Zhuang Autonomous Region (GZAR) expenditure on education as a percentage of its GDP has remained stable at 3.1% over 2010–

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[1] ADB. 2009. *Financial Due Diligence: A Methodology Note*. Manila.
[2] Ministry of Education of the PRC. 2013. *Statistics of Funding for the Ministry of Education in 2012*. Beijing.
[3] State Council of the PRC. 2010. *People's Republic of China National Plan for Medium and Long-term Education Reform and Development (2010-2020)*. Beijing.
[4] B. Fleisher and X. Wang. 2004. Skill Differentials, Return to Schooling, and Market Segmentation in a Transition Economy: The Case of Mainland PRC. *Journal of Development Economics*. 73 (1). pp. 315–328.
[5] H. Zhong. 2011. Returns to Higher Education in China: What is the Role of College Quality? *China Economic Review*. 22. pp. 260–275.

2012, slightly lower than the PRC average (about 3.5% in 2011) and significantly lower than the Organization for Economic Co-operation and Development's average of 5.8%. As a percentage of total government expenditures, education spending decreased from 15.5% to 13.3% during 2009–2012. GZAR's education expenditure for TVET has been very low, about 9.0% of its total annual education expenditure in 2012 or about 1.2% of its total government expenditure. Table 1 shows trends in education expenditure in Guangxi.

Table 1: Trends in the Financing of Education, Guangxi Zhuang Autonomous Region 2009–2012

Guangxi	2009	2010	2011	2012
Guangxi total GDP (CNY billion)	775.9	957.0	1,172.1	1,300.0
GDP annual growth rate (%)	10.5	23.3	22.5	10.9
Guangxi Government total expenditure as % of GDP	162.3	200.8	254.5	296.5
Government total expenditure as % of GDP	20.9	21.0	21.7	22.8
Guangxi Government education expenditure (CNY billion)	25.1	29.7	36.7	39.5
Education expenditure as % of GDP	3.2	3.1	3.1	3.0
Education expenditure as % of Guangxi Government total expenditure	15.5	14.8	14.4	13.3
Guangxi Government expenditure for TVET (CNY billion)	2.3	3.3	3.5	3.6
Expenditure for TVET as % of total Guangxi Government expenditure	1.4	1.7	1.4	1.2
Expenditure for TVET as % of total Guangxi Government education expenditure	9.0	11.3	9.5	9.0

CNY = Chinese yuan, GDP = gross domestic product, TVET = technical and vocational education and training.
Source: Guangxi Statistical Yearbooks (2009–2012).

5. Similar to the practice in other provinces in the PRC, GZAR's TVET schools have been financed largely by (i) fiscal budgetary resources; (ii) school-generated incomes from tuition fees, accommodation fees, and training fees; (iii) donations; and (iv) other income sources. Public funds from central and local government budgetary funds are the largest source of financing for public TVET institutions at secondary and tertiary levels. TVET institutions receive funding from government ranging from CNY4,000 to CNY5,000 per student per year. In Baise University, CNY4,499 per student fiscal transfers were received in 2013 and CNY4,908 in 2014. Tuition fees and dormitory charges constitute another income source for schools. For example, in per-student terms, these accounted for CNY5,256 in 2013 and CNY6,167 in 2014. A few institutions augment their funds through commercial loans, grants, and subsidies from the government for capital development and other requirements.

6. Government budgetary resources are provided to TVET colleges and secondary schools through (i) grants (i.e., operations, civil works, and research); (ii) educational surtax; (iii) grants and investments from the private sector; and (iv) social grants.

7. Since 2008, with total admissions in TVET schools exceeding admission targets every year, Guangxi has invested over CNY7.5 billion on school development, including newly built campuses with a total area of 3.3 million acres, newly added spaces of 3.27 million square meters, newly procured equipment estimated at CNY1.65 billion, and about 2.5 million new books.[6] In Baise, total admissions of TVET students are increasing rapidly. For instance, in 2013, the total admission was 167% of the targeted figure.

8. **Tuition fees.** Basic tuition fees at tertiary TVET institutions were CNY3,727 per student per academic year in 2012, and fees up to a ceiling of CNY7,000 could be levied (except fine arts majors whose ceiling was CNY9,000). However, in June 2013, the GZAR government increased its tuition ceilings by 36.2%. This was intended to address the increasing debt

[6] Ministry of Education of the PRC. 2012. *Educational Statistics Yearbook of China*. Beijing.

accumulated by the educational institutions in GZAR, which was CNY5.92 billion by the end of 2011. The increased tuition is also expected to have a positive impact on the provision of educational quality. As returns to education have increased substantially since 2000 (para. 3), such a tuition increase is tiny compared to the wage increases accrued from education attainment. Thus, the tuition increase is intended to be absorbed by the students and their families.

C. Financial Sustainability Analysis

9. **Background.** The financial sustainability analysis was undertaken for BMG and Baise University. The ADB loan will be made to the Government of the PRC who will relend it to the GZAR, who will in turn on-lend it to BMG on the same terms and conditions as those of the ADB loan. The loan proceeds will then be made available to Baise University for the construction and implementation of the project. Apart from ADB loan proceeds that will cover 48.3% of the total investment cost, 39.3% will be funded by BMG's counterpart funds. Baise University will cover the rest of the 12.5% of the funding requirement through domestic borrowing from the China Construction Bank. BMG will assume the foreign exchange and interest rate variation risks of the loan amount it receives. BMG will be responsible for debt servicing and repayment guarantees, and has given assurances on the timely availability of counterpart funds. The objectives of the analysis were to (i) assess the financial capacity of BMG to provide counterpart funding and to service debt during and after implementation; (ii) review the historical financial capacity of Baise University based on sources and uses of funding, and determine how much incremental expenditure it can support; and (iii) assess the financial capacity of Baise University to provide counterpart funding, where required, and later to fund incremental operation and maintenance (O&M) costs and debt service requirements.

10. **Fiscal impact on Baise Municipal Government.** BMG's current fiscal condition remains sound. Its fiscal revenues have increased by an average rate of 15.52% over the last 5 years, from CNY55.09 million in 2008 to CNY98.12 million in 2012. Over the same period, public expenditures have increased at 21.57% per annum.

11. A detailed financial projection and the fiscal impact because of the project were prepared for BMG. Historical average annual growth rates are assumed to forecast the government revenues and expenditures for the 2015–2039. The financial sustainability analysis involves comparing the estimated counterpart funds with the government revenues during the implementation period, and comparing the O&M and debt service with the government revenues during the operating period.

12. The results show that the annual counterpart funds comprise 0.13% to 1.08% of projected revenues during the implementation period. However, debt service and O&M is about 0.05% to 0.65% of annual projected revenues and represents a reasonable proportion of the government expenditures at the start of the operating period. BMG's financial capacity is therefore considered adequate to provide counterpart funding and to service an ADB loan.

13. **Financial sustainability analysis of Baise University.** Like most state-owned schools, Baise University relies on government budget support every year. Due to the practice of balanced budgets, revenue and expenditure flows result in minimal net incomes. The school received substantial increases in government budgetary allocations, averaging around 30.25% annually from 2009 to 2014. The fiscal funds received from BMG are only about 40% of the total fiscal transfers because the school also gets support from higher level government. Revenues of Baise University in 2013 comprised, on average, the following: (i) 44.30% of public fiscal

funds, (ii) 31.16% of tuition and dormitory charges, and (iii) 23.82% of other revenues. Total revenues are thus diversified and the financial capacity of the institution is more robust against negative revenue impacts or exposure to financial risks. Baise University plans to borrow from a commercial bank to fulfil its share of the counterpart funding requirement, which is about 12.5% of the total project cost. The borrowing amount is within a reasonable scale in terms of repayment capacity. Normally, the relevant local government would provide an informal assurance for any local commercial bank loan of a TVET institution, but it would not enter into a formal guarantee.

14. Financial projections of Baise University were prepared by the project preparation consultants to assess Baise University's financial capacity to provide counterpart funds, fund incremental O&M costs, and service debt. The projections were only made up to 2023, which is when Baise University's student enrollment is projected to reach capacity. Debt servicing costs will decline thereafter, and the financial impact of the project on the TVET institutions will also decline each year.

15. It is projected that in year 2020, Baise University would be able to provide counterpart funds for the ADB project, operate and maintain the assets, and cover the debt service requirements of the proposed loan. Annual debt service obligations are estimated to start from 2.79% of Baise University's total estimated revenue in 2020 and continuously decline to 1.91% by 2023; the projected annual incremental project O&M costs are estimated to range from 6.64% to 6.21% of projected annual revenues during 2020–2023. These results indicate acceptable fiscal risk, because the revenues are expected to grow in line with economic development.

16. The post-implementation incremental O&M expenditure is relatively small compared to total revenue and can be financed without much difficulty. Baise University has the capacity to meet this requirement from discretionary fee income. The introduction of capacity strengthening under the project and ongoing sector reforms will likewise contribute towards increasing its financial independence and self-sufficiency. This will be undertaken through partnerships with industry through production sales, contracts for technical training courses for enterprises, and short-term skill upgrading courses for workers.

D. Financial Management Assessment

17. The FMA was carried out using an ADB FMA questionnaire. The FMA is used to determine whether or not the financial management arrangements of BMG and Baise University as the executing agency and implementing agency, respectively, are capable and adequate for recording all transactions and balances, preparing reliable financial statements, safeguarding the assets of the company, and maintaining sound financial management and controls. The assessment included review of fund-flow arrangements, staffing, accounting policies and procedures, internal and external auditing arrangements, reporting and monitoring, and financial information systems.

18. The FMA concluded that BMG has financial management experience in managing ADB projects since this will be ADB's third loan to BMG. The GZAR Finance Department, which will operate and administer the imprest account, has sufficient experience in administering foreign-funded projects. Baise University has a reasonably sound financial management system that can provide, with reasonable assurance, accurate, and timely information on the status of the project. The FMA also indicated that Baise University has (i) followed the relevant and well-established financial management policies and regulations in the PRC; and (ii) adequate

financial management capability, which enables it to handle the proposed project from a financial management perspective. The university has some financial management experience of investment projects with relatively experienced accounting staff, but it has no previous financial management experience of foreign-financed projects.

19. The overall financial management risk rating of the project at appraisal stage is moderate because of Baise University's lack of experience of ADB project management, lack of accounting staff for review procedures, and insufficient internal auditing. The identified risks in financial management will be closely monitored during project implementation. Two sub-groups—the financial group and the audit group—will be formed within the project leading group to strengthen financial management capacity. Significant training and support will be required on ADB policies and procedures, including procurement, disbursement, and project management. Technical assistance during the implementation phase will be necessary in the areas of financial reporting, financial management, and withdrawal applications. A comprehensive financial policies and procedures manual should be developed in order to guide staff activities and ensure staff accountability.