**Table 1:** Summary of research problems and/or questions (guidelines: analyse this table by type of research problem or question(s) and classify them, and discuss such classification(s) in the main text)

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| **Reference** | **Research Problem(s) / Question(s)** |
| Matthews, et al. (2010) | To examine the productivity growth of the nationwide banks of China and a sample of city commercial, banks for the ten years to 2007 |
| Hou, et al. (2014) | investigate the impact of market structure and risk taking on the efficiency of Chinese commercial banks |
| Fukuyama, et al. (2021) | This paper focuses on the use of loan loss reserves (LLRs) in the banking production process and considers it as a variable with a dual role. |
| Fukuyama, et al. (2021) | Is corporate social responsibility (CSR) good for efficiency in the Chinese banking industry? |
| Dong et al. (2016) | To examine the cost and profit efficiency of four types of Chinese commercial banks over the period from 2002 to 2013. |
| Luo et al. (2011) | To evaluate the effectiveness of stock listing on Chinese commercial banks’ efficiency using two different frontier approaches. |
| Antunes et al. (2022) | To evaluate the efficiency of 39 Chinese commercial banks over the period 2010–2018. Also, in the second stage, investigates  the inter-relationships between efficiency and some bank-specific variables (i.e. bank profitability, bank size, expenses management, traditional business and non-traditional business) under the Robust Endogenous Neural Network Analysis. |
| Bingquan et al. (2019) | To address the relationship of Chinese urban commercial banks’ output loans around neighbouring regions and include the effect of the regional market environment on bank performance. |
| Luo et al. (2010) | The most significant reform before the crisis was ownership diversification, aiming to improve corporate governance and efficiency. This article will study whether this reform has really improved bank efficiency. |
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**Table 2:** Summary of the main contribution(s) of the paper (e.g., methodology, research question(s), application): what is the **selling argument** of the paper?

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| **Reference** | **Main Contribution(s) of the Paper** |
| Matthews, et al. (2010) | Identify that during 1997 to 2007, the opening up of the banking market has not led to a discernible improvement in bank productivity growth |
| Hou, et al. (2014) | This paper aims to fill the gap in the literature, estimate the technical efficiency of Chinese commercial banks, and investigate the effects of market structure and risk taking on the efficiency estimates employing a two-stage semi-parametric DEA model after the outliers are removed from the sample observations. |
| Fukuyama, et al. (2021) | Our findings show that less liquid banks perform better than  the ones with higher levels of liquidity no matter in which way LLRs are treated. Finally, we find that lower capitalized banks, compared to the ones with high levels of capitalization, are less efficient. however, it shows that higher capitalized banks consistently keep more than 1% LLRs out of total loans. |
| Fukuyama, et al. (2021) | We are the first piece of research considering the number of employees as one bank input and potential increase in the number of employees as one CSR indicator. Additionally, we innovatively propose another three specific CSR indicators: namely donation, balance of green credits and loans to small and medium sized enterprises. |
| Dong et al. (2016) | policy makers should be cautious of the adjustment costs imposed by the recapitalization process, which offsets the efficiency gains. |
| Luo et al. (2011) | The results confirmed that banking reform in China over the past 10 years had achieved remarkable progress. Efficiency levels of the entire sample banks had been improved significantly, and this particularly explained why Chinese banks were less affected by the current financial crisis than their Western counterparts. |
| Antunes et al. (2022) | proposes a new DEA model and discovered that bank size exerts a positive influence on the development of non-traditional banking business and a proactive expense management, bank size and non-traditional businesses have a positive impact on efficiency levels, while bank profitability, traditional businesses and expenses management have negative influences on bank efficiency. |
| Bingquan et al. (2019) | A key finding for our sample is the significant spatial dependence of loans of Chinese urban commercial banks with their neighbouring regions’ banks. Short-run efficiency is increasing during the research period. For regions with less than three urban commercial banks, the average efficiencies are stable and relatively high. However, regions with more banks have both the highest and lowest efficient banks at the same time. These interesting results fit with the development process of Chinese urban commercial banking, in which the market restructuring has contributed to banks’ efficiency. |
| Luo et al. (2010) | bank efficiency increased by almost 5% after listing. Despite the fact that Joint Equity Banks (JEBs) still perform better than SOBs, the latter manage to catch up and reduce the efficiency gap with the former during the past few years. This in part explains why the Chinese banking system has been less affected by the current world financial crisis than their western counterparts, leading to an important conclusion that SOB reforms in China over the past 10 years have produced remarkable results. |
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**Table 3:** Summary of models used within DEA Analyses for assessing the efficiency of DMUs (guidelines: (a) the names of the models should be provided; (b) if statistical tests are used for analysing/comparing categories of DMUs, you should report them; (c) when a paper uses a single stage analysis, columns 3 and 4 should be filled with n/a; (d) when a paper uses a two-stage analysis, column 4 should be filled with n/a; (e) analyse this table by type of DEA approach and model and discuss such classifications in the main text)

|  |  |  |  |
| --- | --- | --- | --- |
| **Reference** | **First Stage Model** | **Second Stage Model** | **Third Stage Model** |
| Matthews, et al. (2010) | Polyhedral cone-ratio DEA model [Charnes (1990)] | n/a | n/a |
| Hou, et al. (2014) | CCR | Tobit | n/a |
| Fukuyama, H., Tan, Y. (2021) | network SBI models | regression analysis | n/a |
| Fukuyama, et al. (2021) | BCC | Bootstrapped truncated regression & Ordinary least square regression | n/a |
| Dong et al. (2016) | SFA | n/a | n/a |
| Luo et al. (2011) | CCR-CRS & BCC-VRS | n/a | n/a |
| Antunes et al. (2022) | SBM | Robust  Endogenous Neural Network Analysis | n/a |
| Bingquan et al. (2019) | spatial Durbin production frontier model | n/a | n/a |
| Luo et al. (2010) | CCR & BCC | n/a | n/a |
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**Table 4:** Summary of Inputs & Outputs and **their measures** used in assessing the efficiency of DMUs and the perspective, also referred to as approach, from which the analysis is performed – we shall refer to this perspective as the assessment perspective; the assessment perspective shapes the choice of inputs and outputs (guidelines: analyse this table by perspective and for each perspective classify inputs and outputs in meaningful categories and discuss them in the main text)

|  |  |  |  |
| --- | --- | --- | --- |
| **Reference** | **Assessment Perspective** | **Inputs** | **Outputs** |
| Matthews, et al. (2010) | performance criteria:  a hybrid between the intermediation and production approaches (IA & PA) | IA:  Deposits (RDEP), overheads (ROHD), fixed assets (RFA) | IA:  Loans (RLOAN),  PA:  other earning assets (ROEA), RFEE (net fee income) |
| Hou, et al. (2014) | performance criteria: IA | total deposits (),  fixed assets (),  number of employees (), | total net loan (),  other earning assets (), |
| Fukuyama, et al. (2021) | performance criteria:  PA | Personnel  expenses  Equity capital,  Fixed assets | Loan loss reserves (LLRs) |
| Fukuyama, et al. (2021) | performance criteria:  POA | number of employees, fixed assets, deposit | interest income, non-interest income |
| Dong et al. (2016) | performance criteria: IA | Price of total borrowed funds (w1) (ratio of total interest expenses to total borrowed funds)  Price of physical capital (w2), also known as the flow factor price for capital (measured by the ratio of other operating expenses to fixed assets)  Price of labor (w3) (using the ratio of personnel expenses to the number of employees as a proxy)  Total equity capital (z) (as a quasi-fixed input) | Total loans (y1)  Other earning assets (y2)  Non-interest income (y3) |
| Luo et al. (2011) | performance criteria: IA | Number of employees,  Fixed assets,  Deposits | Total loans,  Other earning assets |
| Antunes et al. (2022) | performance criteria: IA | fixed assets, total deposits, and personnel expenses | total securities and total loans |
| Bingquan et al. (2019) | performance criteria: IA | deposits, labour and fixed assets | loans |
| Luo et al. (2010) | performance criteria: IA | Number of employees, fixed assets, and deposits (estimated due to missing data) | Total loans (TLs) and other earning assets. |
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NOTE: Make sure that you report both the performance criteria and their measures; e.g., economy is a criterion and GDP is one of the measures of this criterion.

**Table 5:** Summary of response and explanatory variables used in the second-stage analysis of two-stage analyses and the perspective that shapes the choice of the explanatory variables – we shall refer to this perspective as the behavioural perspective which depending on the aim of the investigation could be the contextual or environment perspective or could be event related (guidelines: analyse this table by perspective and for each perspective classify explanatory variables in meaningful categories and discuss them in the main text)

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| --- | --- | --- | --- |
| Reference | Behavioural Perspective | Response/dependent variable | Explanatory variables / drivers |
| Matthews, et al. (2010) | n/a | n/a | n/a |
| Hou, et al. (2014) | market structure,  bank risk | Technical efficiency | Herfindahl-Hirschman Index in deposits ();  the ratio of equity to total assets (),  the ratio of loan loss provisions to total loans (),  the ratio between total loans and deposits () |
| Fukuyama, et al. (2021) | the risk from the perspective related to banks’ ability to withstand the potential negative shocks | direct technical efficiency | LLRs (loan loss reserves) and total loans |
| Fukuyama, et al. (2021) | the impact of CSR on bank efficiency | Indirect technical efficiency, Technical efficiency, Indirect allocative efficiency | Donations (reflecting social contribution),  Balance of green credit (reflecting environmental responsibility),  Loans to Small and Medium-sized enterprises (SMEs) |
| Dong et al. (2016) | n/a | n/a | n/a |
| Luo et al. (2011) | n/a | n/a | n/a |
| Antunes et al. (2022) | Bank profitability, bank size, expenses management, traditional business and non-traditional  business | technical efficiency | bank size (natural  logarithm of total assets),  bank profitability (return on assets),  expense management (the  sum of total interest expenses and non-interest expenses over total assets); traditional bank  business (the ratio of interest income to total assets); and non-traditional bank business (the  ratio of non-interest operating income to total assets). |
| Bingquan et al. (2019) | n/a | n/a | n/a |
| Luo et al. (2010) | n/a | n/a | n/a |
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**Table 6:** Summary of Environmental variables used in three-stage analyses for assessing the efficiency profiles of DMUs and the perspective that shapes the choice of these variables; i.e., the perspective from which the analysis is performed & environmental variables are chosen – we shall refer to this perspective as the environment perspective and should reflect the internal environment characteristics, the external environment characteristics, or both (guidelines: you are required to provide the list of environmental variables used by the authors in each reference; papers not using a three-stage analysis and thus not considering environmental variables should not be included in this table – recall that a three-stage analysis purges the efficiency scores from the effect of the environment, which requires the use of environmental variables. Analyse this table by perspective and for each perspective classify environmental variables in meaningful categories and discuss them in the main text)

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| **Reference** | **Environment Perspective** | **Environmental Variables** |
| Matthews, et al. (2010) | n/a | n/a |
| Hou, et al. (2014) | n/a | n/a |
| Fukuyama, et al. (2021) | n/a | n/a |
| Fukuyama, et al. (2021) | n/a | n/a |
| Dong et al. (2016) | n/a | n/a |
| Luo et al. (2011) | n/a | n/a |
| Antunes et al. (2022) | n/a | n/a |
| Bingquan et al. (2019) | n/a | n/a |
| Luo et al. (2010) | n/a | n/a |
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**Table 7:** Summary of Number of DMUs, Period of Analysis, Sample size, and Source(s) of Data (guidelines: analyse this table by type of DMU, when relevant, and classify them into meaningful categories and discuss them in the main text)

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| --- | --- | --- | --- | --- |
| **Reference** | **Number of DMUs & th+eir country(ies)** | **Period of analysis** | **Sample Size** | **Source of Data** |
| Matthews, et al. (2010) | 5 state-owned or state-controlled commercial  banks (SOCB), 9 joint-stock commercial banks (JSCB) and 47 city commercial banks (CCB) | 1997-2007 | 314 | Fitch/Bankscope |
| Hou, et al. (2014) | 44 major Chinese  commercial banks | 2007-2011 | 220 | BankScope database |
| Fukuyama, et al. (2021) | 43 Chinese banks | 2010–2019 | 430 | Not given |
| Fukuyama, et al. (2021) | 72 Chinese commercial  banks | 2007–2017 | 792 | Fitch Connect |
| Dong et al. (2016) | 142 Chinese banks | 2002-2013 | 1704 | BankScope |
| Luo et al. (2011) | 14 listed Chinese  commercial banks | 1999–2008 | 140 | Thompson’s Bankscope |
| Antunes et al. (2022) | 39 Chinese commercial banks | 2010–2018 | 351 | Fitchconnect |
| Bingquan et al. (2019) | 65 Chinese urban commercial banks | 2013–2017 | 325 | Orbis Bank Focus |
| Luo et al. (2010) | 14 Chinese listed commercial banks | 1999-2008 | 140 | Bankscope |
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ADVICE: Once you have completed reading the papers you selected for your literature survey and filled the above tables (Tables 1-7), analyse each table separately and write a paragraph or several on each table including a classification of the literature related to each of these tables. Then, craft a story to tell the reader based on these analyses of the tables. Remember, writing papers / reports / dissertations is all about crafting interesting stories to tell the reader based on facts / empirical evidence!