

# Profitability paradigm shift of commercial banks in China before the arrival of “Lewis turning point”

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**Abstract** –The paper is based on the background that Chinese society is coming to the "Lewis turning point" which means the era of high interest rates will begin. The paper aims to make analysis of the current profitable business of commercial banks in China through an empirical study and attempts to give domestic banks suggestions for change.

**Keywords** –Lewis turning point, the era of high interest rates, commercial banks, profitability paradigm shift

## 1. Introduction

"Lewis turning point" is a concept derived from economist Lewis's paper 《unlimited supply of labor under the conditions of development economics》, he divided development model into two stages: First stage of unlimited labor supply and second stage of labor shortage, namely the "dual economy" model of development. When economic development transfers from the first stage to the second, then labor force change from surplus to shortage which leads to labor wage levels increase. This intersection point of the two-stage is called "Lewis turning point".

The most important influence of the arrival of "Lewis turning point" for our nation is the elimination of the "demographic dividend" advantage. China's industrialization process with the surplus rural labor to non-agricultural industries gradually leads to the rising labor costs, although the rise in labor costs will improve the situation of China's low labor income and consumption, the rise in living costs like food and education, the structural imbalance in age and skill of

labor need and supply, and the challenge from other developing countries will finally cause cost-push inflation.

For China's banking financial system, inflation will lead to a tightening of domestic monetary policy and high commercial bank deposit reserve ratio, the government would increase domestic interest rate to control excess liquidity in market, so the era of high interest rate will come inevitably. How domestic commercial banks react to make a change before such trend is the problem following to discuss.

## 2. Empirical study

### 2.1. Data

The paper uses Eviews6.0 software to build multiple linear regression models of twelve commercial banks in China to analyze their profit structure for conclusion.

The data are obtained from commercial banks' 2011 annual report. The objectives we study in the paper include Industrial and Commercial Bank of China,

Agriculture Bank of China, Bank of China, China  
Construction Bank, Bank of Communications, China  
Industrial Bank, China Merchants Bank, China Mingshen  
Bank, Citic bank, Huaxia Bank, Shenzhen Development

Bank, Shanghai Pudong Development Bank.

## 2.2. Model Set Up and Variables

**Table 1: Variable Description**

<b>Y</b>	Operating income
<b>X<sub>1</sub></b>	Net Interest Income
<b>X<sub>2</sub></b>	Net fee and commission income
<b>X<sub>3</sub></b>	Foreign exchange gains
<b>X<sub>4</sub></b>	Net investment income
<b>U</b>	Random error term

**Table 2: The argument descriptive statistics**

	<b>X<sub>1</sub></b>	<b>X<sub>2</sub></b>	<b>X<sub>3</sub></b>	<b>X<sub>4</sub></b>
<b>Mean</b>	1124.39	242.71	5.25	20.70
<b>Median</b>	526.06	98.10	5.55	2.91
<b>Maximum</b>	3037.49	728.40	17.22	92.77
<b>Minimum</b>	158.29	14.45	-6.61	-10.85
<b>Observations</b>	12	12	12	12

From Table 2, the main source of income for domestic commercial banks is from net interest income of long-term loans., including collateral, guarantees and discounted business. Followed by is net fee and commission profit that comes from fees collected on behalf of various intermediate business, including a variety of great potential business like agents, settlement and credit cards. The last are foreign exchange and investment business, due to the constraints of China's banking industry development as well as strict rules on commercial bank conglomeratization, domestic banks pace relatively slowly in overseas expansion and investment banking field, the two aspects of business did not constitute a major source of profit for banks.

## 2.3. Method and Analysis

The paper uses stepwise multiple regressions to

avoid the presence of multicollinearity between independent variables. We make a simple regression of independent variable( $X_1$ ,  $X_2$ ,  $X_3$ ,  $X_4$ ) with  $Y$  respectively to the get goodness of fit coefficient table.

**Table 3: goodness of fit coefficients**

	<b>X<sub>1</sub></b>	<b>X<sub>2</sub></b>	<b>X<sub>3</sub></b>	<b>X<sub>4</sub></b>
<b>Prob</b>	0.0000	0.0000	0.6427	0.1457
<b>R<sup>2</sup></b>	0.993199	0.985203	0.022371	0.199323

From Table 3, we select  $X_1$  which has the highest goodness of fit with  $Y$  as the argument of basic regression equation, then gradually put other explanatory variables into the equation respectively and maintain the one improving the goodness of fit for regression equation. After Eviews6.0 operation, the order is  $X_1$ - $X_2$ - $X_4$ - $X_3$ , the following table is a multiple regression table.

**Table 4: Multiple regression analysis**

<b>Dependent Variable: Y</b>	<b>Method: Least Squares</b>	<b>Sample (adjusted): 1 12</b>	<b>Included observations: 12 after adjustments</b>	
	<b>Coefficient</b>	<b>Std. Error</b>	<b>t-Statistic</b>	<b>Prob.</b>
<b>C</b>	18.74952	31.26084	0.599777	0.5676
<b>X1</b>	0.879419	0.137458	6.397732	0.0004
<b>X2</b>	0.220407	0.072266	3.049964	0.0052

<b>X4</b>	1.421717	0.650704	2.184889	0.0652
<b>X3</b>	1.039401	3.422668	0.303682	0.7702
<b>R-squared</b>	0.999031		<b>Prob(F-statistic)</b>	0.000000
<b>Adjusted R-squared</b>	0.998477		<b>Durbin-Watson stat</b>	1.803286

From Table 4, the model passes T-test and shows good goodness of fit. Only  $X_3$  fails to pass the independent variables significant test under the 10% significance level, thus multiple regression equation of the model is:

$$Y = 18.74952 + 0.879419 X_1 + 0.220407 X_2 + 1.421717 X_4$$

From the equation, net interest income  $X_1$  (0.879419) shows more impact than the fee and commission income  $X_2$  (0.220407) on the income structure of commercial banks, which is consistent with the actual situation that the net interest income from the loan-to-deposit has been the largest source of profits for domestic banks.

But net interest income  $X_1$  (0.879419) and fee and commission income  $X_2$  (0.220407) shows less impact than net investment income  $X_4$  (1.421717), there may be two reasons: one is that credit business risk is relatively large and non-performing loan ratio has significant influence on the profitability of domestic commercial banks. If there's more non-performing loans in the sample period, it will greatly weaken the interest income of the year; The other reason is that fee and commission income mostly belong to the intermediate business, while these business in our country now are mostly kind of easy-agent business, or only with single letters of credit, bankers' acceptances and other trade-related fee-based business. Those highly added value business providing customers with professional personalized financial service and advice are relatively small in China, resulting in a lack of profit contribution to domestic commercial banks.

### 3. Suggestion

For China's financial industry, the arrival of "Lewis turning point" will result in cost-push inflation; it's inevitable for the government to adopt a

tightening monetary policy. The coming of high interest era makes it imperative for domestic commercial banks to adjust their profit model to adapt the new economic environment.

According to the results of empirical study above, the paper gives following recommendations.

#### 3.1. Improve the loan-to-deposit business mode

In the economic context of high interest rates, the loan-to-deposit business will face a huge challenge. To avoid such dilemma, commercial banks must focus on the improvement of loan structure under the rigid deposit demand environment in China. Banks shouldn't take the "encounter" lending policy, but should establish a set of corporate reputation and risk assessment criteria to provide loan services for both large-scale, high-effective enterprises and large numbers of promising SMEs.

#### 3.2. Explore the intermediate business potential

Fee and commission income is from intermediary business, there's huge potential in the field.

Firstly, the rapid development of intermediary business is the trend in the future, it can not only enhance the competitiveness and anti-risk ability of the commercial banks, but also will improve the current unreasonable revenue structure dominated by a single loan-to-deposit model. Secondly, banks should do more market segment research to find out low-cost and high-yielding products to meet potential demand (such as trust and leasing business, including finance leases, operating leases, leaseback lease; consulting business, including asset valuation, asset-liability management, family financial management). Thirdly, banks should increase the technological content and strengthen the depth and breadth of intermediary business products, so that the knowledge-intensive business can become an important part of profits source.

### 3.3. Develop the investment banking business

Net investment income has a very great impact on the profit, which can be drawn from the data analysis above. With the gradually opening up of Chinese capital market, bank conglomeratization process is pacing up. Domestic commercial banks are now under the supervision of separate operation, but the real separation of business is not absolute.

Firstly, domestic banks can engage with securities firms in business like investment banking and fund trustees. Banks can also independently develop part of bond business, such as agency issuing, cashing and underwriting bonds. Secondly, it's quite important for China's commercial banks selecting business platform ( Integrated asset management, M&A, Financial advisory, Direct equity investments) with their own advantages. If the four state-owned banks by virtue of their natural size and market value have the potential to become the "China citibank" ,"China HSBC ", then the city commercial banks should make full use of their regional advantage and focus on specialized

services.

## References

- [1] Feng Liu. The post-financial crisis era "Lewis turning point" and financial reform [J]. SAR economy. 2010 (10): 121-123
- [2] Chang Liu. Financial innovation path selection of China's commercial banks in the post-financial crisis era [J]. Era financial .2010 (11) :61-62
- [3] Hui Zhang. Efficiency of commercial banks in China based on DEA model perspective analysis [J]. the collective economic .2010 (12): 97
- [4] Dijia Zhai. Empirical study on profitability of commercial banks based on the factor analysis [J]. Economic Forum 2010 (11): 151-153
- [5] Yulan Xiao, Jianqing Lu. Comparative analysis of China's state-owned commercial bank profitability [J]. Financial Services Sector 2006 (4) :144-145
- [6] Jianwei Guo. Foreign state-owned banks reform model and its revelation [J] Chinese financial, 2005, (12) :61-63.