## The Origins of Anti-Competitive Bank Regulation in Hong Kong: Was Hong Kong 'over-banked' in the 1960s?

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Hong Kong has long been recognised as an important international banking centre, largely because of its laissez-faire environment. However, in the mid-1960s a diagnosis of 'over-banking' by large banks and the government, led to the imposition of two important anti-competitive restrictions that were retained until 2001. This paper investigates the policy background to the controls, assesses the claim of 'over-banking' using new data and suggests other explanations for instability in the Hong Kong banking system. The conclusion is that the diagnosis was wrong, and therefore the medicine of restrictive regulation was inappropriate, leaving Hong Kong vulnerable to further instability.

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Hong Kong, Anti-Competitive Banking Regulation

The rise of Hong Kong as an international financial centre is usually attributed to the lack of government interference that provided a safe haven for regional capital. Henry Smith famously dubbed the colony 'John Stuart Mill's Other Island' in recognition of the free markets that prevailed there.<sup>1</sup> Milton Friedman consistently praised the laissez-faire economic policies of Hong Kong's Financial Secretary Sir John Cowperthwaite during the 1960s. Among Friedman's final publications (a month before his death in November 2006) was a contribution to the Wall Street Journal where he described Hong Kong as 'a shining symbol of economic freedom'.<sup>2</sup> In 1998, Friedman specifically attributed the relatively poor economic growth of Britain compared to Hong Kong to 'socialism in Britain, free enterprise and free markets in Hong Kong.<sup>3</sup> This characterisation is certainly true for international capital flows and the foreign exchange market, which operated more freely than almost any other centre

<sup>&</sup>lt;sup>1</sup> H. Smith, John Stuart Mill's other island'.

<sup>&</sup>lt;sup>2</sup> Friedman, 'Hong Kong Wrong'.
<sup>3</sup> M. Friedman, 'The Hong Kong Experiment'.

in the world in the 1950s.<sup>4</sup> The low tax structure attracted business and capital to the colony and reflected the official policy of 'positive non-interventionism' at a time when most governments, particularly the imperial metropole Britain, were highly interventionist. Nevertheless regulations on entry into the banking system from 1965 and a cartel for deposit interest rates from 1964 until 2001 tightly constrained free competition. The banking sector, a core element in the development of the economy and the international financial centre, was certainly not a free market during the glorious 'half-century of positive non-interventionism' described by Friedman. Indeed, Hong Kong arguably developed as a major regional financial centre in the 1960s and 1970s despite of rather than because of the regulatory framework that operated in the colony. Why did a famously laissez-faire state impose such draconian restrictions on competition in the banking system?

In the 1960s, Hong Kong was widely viewed as being 'over banked', with claims that after a spectacular increase in deposit-taking in the 1950s the scope for new market expansion had expired. Large banks claimed that excessive competition encouraged risky lending behaviour by under-capitalised small banks, and that this situation called for anti-competitive regulation.<sup>5</sup> The government was notoriously reluctant to intervene in the market, but the Chartered Bank and HSBC called for a reduction in the number of banks after the Liu Chong Hing bank crisis in 1961. HJ Tomkins, sent out by the Bank of England to draft a new banking ordinance in 1965 agreed that 'there is little doubt that the number of banks in Hong Kong is excessive in relation to the size of the population and the present stage of development of the economy'. The judgement that there were too many banks in Hong Kong has since become entrenched in the standard literature on the development of the Hong Kong banking system.<sup>6</sup>

Two regulatory controls were specifically aimed at this diagnosis of 'excessive competition' – both were retained for over thirty years, until the Asian Financial Crisis of 1997 led to a reassessment of the banking system in Hong Kong.<sup>7</sup> First, the Exchange Banks Association (EBA) introduced a tiered interest rate ceiling for

<sup>&</sup>lt;sup>4</sup> Schenk, *Hong Kong*1.

<sup>&</sup>lt;sup>5</sup> See Schenk, 'Banking crises' for a full discussion of the imposition of bank regulation. Memo by Hallows of a conversation with JAH Saunders, 15 June 1961. Letter from P.L.Hogg to Heasman, 24 Aug. 1961. Bank of England Archive [hereafter BE] OV14/21. HJ Tomkins to Financial Secretary, 5 March 1965. Hong Kong Public Record Office [hereafter HKRS]163/3/249.

<sup>&</sup>lt;sup>6</sup> The two most authoritative accounts are Jao, *Banking and Currency* and Ghose, *Banking System*.

<sup>&</sup>lt;sup>7</sup> KPMG Berents, *Hong Kong Banking*.

deposits to contain competition in July 1964. Controlling interest paid on deposits was a common feature of many banking systems in the post-war years, including the UK, both for public interest reasons (to avoid excessive bank competition leading to risky behaviour) and private interest reasons (to protect banks from paying higher interest).<sup>8</sup> In Hong Kong's case, however, the rules were devised and monitored by the banks themselves against the wishes of the government. Secondly, and much more controversially, in May 1965 the Banking Advisory Committee (a joint private and government agency) successfully urged the government to impose a moratorium on new bank licenses to prevent entry into the market. Again, this was not unique, but it was much longer lasting than most cases. Australia, for example, did not have an official moratorium but new banks were discouraged the authorities until the 1980s. The Interest Rate Agreement in Hong Kong was finally ended in July 2001. The moratorium on new licenses was lifted in 1978, but re-imposed for 1979-81. Thereafter, new foreign banks were restricted to one branch office until September 1999 and three branch offices until November 2001 to maintain protection of the domestic retail sector.

The role of the banks themselves in lobbying for the regulation conforms to Stigler's 'capture' theory of regulation. It is also consistent with Rajan and Zingales' global theory of incumbent interests constraining free markets and introducing barriers to entry in financial services in the post-war period.<sup>9</sup> In their analysis, external pressures in the 1980s eventually overcame domestic vested interests - in Hong Kong's case this only came with the fall-out from the Asian Financial Crisis of 1997. What is perhaps most striking is that the incumbent banks were able to protect their position (albeit with declining force) for 36 years despite the development of the international financial centre, and despite the continued mythology of Hong Kong as a laissez-faire paradise. The protection of smaller local-Chinese controlled banks was a strong argument for regulation that persisted even through the banking crises of the They represented a powerful business elite and were viewed as serving 1980s. SMEs and the local population in ways that the larger foreign banks could not. At the other end of the market, the close relations between the HSBC and the government in the absence of a central bank was also an enduring factor in support of barriers to entry.

<sup>&</sup>lt;sup>8</sup> Eichberger and Harper, 'On deposit interest rate regulation'

<sup>&</sup>lt;sup>9</sup> Rajan and Zingales, Saving Capitalism.

Given the longevity of these regulations and their impact on the development of the Hong Kong banking system, it is surprising that there has been no reassessment of the reasons why they were imposed in the first place. This paper produces a new analysis of the scale of banking activity in Hong Kong based on archival evidence and re-calculation of published data. Various measures of concentration and competitiveness are made to assess whether the system was 'over-banked' in the 1960s, and whether the anti-competitive regulation was justified. Finally, qualitative evidence suggests that poor governance and weak supervision were more important triggers for bank failures than excessive competition.

### I Background on 'Over-Banking'

The concept of 'over-banking' and its potentially destabilising effects recently resurfaced in the 1990s when there was a rush of bank mergers and acquisitions, both within states and across borders. This prompted a vigorous academic debate about the possible impact of consolidation in the banking system on banking stability and performance as well as a reconsideration of the appropriate regulatory and supervisory framework in which this consolidation should take place.<sup>10</sup> The consensus generally was that there were too many banks and that consolidation was likely to continue.

The 'mushrooming' of banks in transition economies in Eastern Europe in the 1990s generated a related literature assessing the extent of 'overbanking' and its implications. Bonin and Wachtel, for example, conclude that 'the proliferation of new banks creates more problems for the banking system than it solves' because poorly capitalized banks pursue excessively risky strategies that create systemic threats.<sup>11</sup> Pyle argued that overbanking in Russia reduced the incentive of otherwise creditworthy borrowers to pay back their loans since reputation is not as important in an environment where there are a number of alternative sources of bank loans. A large number of banks can obscure a borrower's credit history, since in the absence of a comprehensive credit reference agency it is easier to hide outstanding loans from other banks.<sup>12</sup> Petersen and Rajan showed that highly competitive banking systems

<sup>&</sup>lt;sup>10</sup> A survey of the literature to the end of the 1990s can be found in Berger, Demsetz, and Strahan, 'Consolidation of the financial services industry'. For more recent literature, Beck, Demirgüç-Kunt and Levine, 'Bank concentration'.

<sup>&</sup>lt;sup>11</sup> Bonin and Wachtel, 'Toward market-oriented banking', p. 118.

<sup>&</sup>lt;sup>12</sup> Pyle, 'Overbanked and Credit Starved'.

disrupt relationship-building that may be particularly important for SMEs to access bank loans.<sup>13</sup>

One of the drawbacks of this literature is that the existence of 'overbanking' is mainly only determined in hindsight. That is, after a boom there follows a contraction in the number of banks and therefore a claim that the system had been 'overbanked'.<sup>14</sup> Another interpretation of this phenomenon, however, might be that the higher number of banks in one period was optimal to the market conditions of that period but that these changed, leading to a subsequent shedding. Bonin rather vaguely defined 'overbanking' in terms of the number of small banks and the number of banks per capita.<sup>15</sup> Jaffee and Levonian have tried more ambitiously to overcome the subjective judgement of what constitutes an appropriate banking structure.<sup>16</sup> Thev note that developed countries have a wide range of banking structures (using measures of assets/GDP, branches/GDP) that are influenced by a variety of economic and institutional factors. Using OECD data they calculate equations that explain the banking structure of 26 developed countries and use these to create a benchmark for transition economies in Eastern Europe to assess whether there are too many banks there. Their analysis, not surprisingly, suggests that size of GDP and the existence of an international financial centre are important determinants of the number of banks and the number of bank offices. This has implications for Hong Kong as a host of a regional financial centre with rapidly rising GDP per capita in the 1960s, although there is insufficient data to apply the benchmark formally.

These approaches all suggest that there may be negative systemic outcomes from an economy having 'too many' banks, and that these effects might be exaggerated in developing economies with a large number of SMEs (such as Hong Kong) although the threshold of what constitutes 'too many' banks is difficult to define and will be affected by the location of international banking centres (as in Hong Kong). Conversely, consolidation will not necessarily have a negative impact on competitiveness or efficiency of the banking system.

II What evidence is there that Hong Kong was 'over-banked' in the 1960s?

First we need to examine the bank data that is available. Banking statistics

<sup>&</sup>lt;sup>13</sup> Petersen and Rajan 'Effect of Credit Market Competition'.

<sup>&</sup>lt;sup>14</sup> Hainz, 'Are Transition countries over-banked', p. 237.

<sup>&</sup>lt;sup>15</sup> Bonin, 'Banking in the Balkans'.

<sup>&</sup>lt;sup>16</sup> Jaffee and Levonian, 'The structure of banking systems'.

were not collected until the Financial Secretary was forced by the Colonial Office in London to report some data for their annual reports. Until January 1953 bank data for the colonies was collected directly from international banks by the Bank of England, but from this date the local colonial authorities were responsible for collecting banking data and reporting it to the Colonial Office. The Colonial Office insisted that 24 banks authorised to deal in foreign exchange make returns in August 1953 and the Financial Secretary passed the request on to the Exchange Banks Association (EBA). However, it was not until March 1954 that the banks finally agreed to provide the data and they insisted that it should not be published.<sup>17</sup> The HSBC was concerned about confidentiality even in consolidated accounts, because of the relative size of HSBC, and warned rather feebly that if the information were available destabilising public rumours might arise.<sup>18</sup> A little bit of knowledge was deemed to be a dangerous thing. The Colonial Office persistently pressed for more disclosure to bring Hong Kong in line with other colonies.<sup>19</sup>

The data initially covered only 29 out of 92 licensed banks in June 1954. The number of banks making returns gradually rose to 36 by 1958 and then increased more quickly to 67 by 1963. The March 1965 data included 16 more banks than the December 1964 figures, but these new banks together only amounted to 1.6% of total deposits at the end of 1964. However, for the earlier years, when larger banks were excluded, there is more likely to have been an underestimation of total assets and liabilities of the banking system. For example, the data show a dramatic increase in banking activity in 1959 (deposits increased 30% and loans by 49%) but this is the first year that Hang Seng, Overseas Trust Bank, Liu Chong Hing Bank, Hong Kong Chinese Bank, and Bank of America (International) were included.<sup>20</sup> Of the locally incorporated banks, Hang Seng and Liu Chong Hing were the largest (together they had \$102m in total assets in 1957). In 1958 (the year before it was included in the returns) Hang Seng had \$60m in deposits, which would add almost 4% to the published total deposits for that year, and so reduce the published growth rate in 1959.<sup>21</sup>

<sup>&</sup>lt;sup>17</sup> Secretary of State for the Colonies to Governor of Hong Kong 22 August 1953. W Ramsay-Main to FE Richmond of Colonial Office, 17 March 1954. HKRS163-1-625.

<sup>&</sup>lt;sup>18</sup> Letter from the Manager of HSBC to the Hong Kong Exchange Controller, 9 September 1953. HKRS163-1-625.

<sup>&</sup>lt;sup>19</sup> See correspondence between JJ Cowperthwaite and W Searle (CO), HKRS163-1-625.

<sup>&</sup>lt;sup>20</sup> The dates the banks were included is in HKRS163-1-625.

<sup>&</sup>lt;sup>21</sup> Hang Seng's deposits increased from \$60m to \$82m from 1958-59. Chambers, *Hang Seng*, p. 38.

In December 1958 the EBA agreed that the figures collected on total deposits and advances only could be published (back to 1954).<sup>22</sup> To date, the full data have never been published, but it is available in the archives of the Financial Secretariat and is used in the following analysis. In July 1962 the EBA finally agreed that quarterly consolidated balance sheet data could be published in the government Gazette after it had already appeared in the Tomkins Report and in Nigel Ruscoe's Hong Kong Register (published by the Far Eastern Economic Review). The published series was moved to monthly from June 1965, but earlier monthly reports are available in the archive.

One unusual aspect of Hong Kong is that there was no central bank or separate monetary authority. Instead, three banks issued notes under separate statutory provisions.<sup>23</sup> This was not a case of free banking since an effective currency board system operated, under which the note issue was backed 100% by sterling assets. The three banks issued notes against deposits of sterling in the Exchange Fund and recorded their note issue as liabilities. In return they received 'certificates of indebtedness' which appeared in the asset side of their balance sheets.<sup>24</sup> The notes themselves were not net liabilities of the note-issuing banks since they were issued on behalf of the Exchange Fund on which the banks had matching claims. Nevertheless, banking statistics included notes issued by the banks on the liabilities side and the corresponding certificates of indebtedness among assets. This swelled the total value of assets and liabilities considerably, with particularly important effects in the early years. When the data were analysed within the government the note issue components were usually ignored. The note issue and associated assets were removed from the published series from April 1975 (back-dated to 1973).

To make the data more accurate for international comparison and consistent with more recent data we exclude the note issue and corresponding assets. From 1973 to 1982 the published data also exclude 'Balances Due to Banks in Hong Kong' from total liabilities to avoid double counting. For consistency, these balances are also excluded from the 1954-1981 data. These adjustments change the complexion of the data, particularly for the 1950s and early 1960s when note issue was large relative to

<sup>&</sup>lt;sup>22</sup> JJ Cowperthwaite to Director of Commerce and Industry, 20 Dec. 1958. HKRS532-3-54.

<sup>&</sup>lt;sup>23</sup> The terms of the statutes are detailed in King, *Money in British East Asia*. Other colonies also operated currency boards during the post-war period but the note issue did not appear in their banking statistics because notes were issued by separate crown institutions.

<sup>&</sup>lt;sup>24</sup> About 90% of currency note issue was by HSBC. Chartered Bank and Mercantile Bank also issued notes.

deposits, as shown in Figure 1.

[insert Figure 1]

The importance of the new definition of total assets is clearly apparent in the comparison shown in Figure 2. Bank assets fall from 100% of GDP in 1954 to 63%. The assets of the banking system only reached 100% of GDP in 1972. This downward adjustment has implications for the claim that Hong Kong was 'over-banked' in the 1960s because it reduces the scale of banking activity in the economy. [insert Figure 2]

The adjusted level of banking activity is not high relative to OECD countries in the 1990s, most of whom had ratios between 100-200%, except for hosts of IFCs where the ratio was much higher (400% for Switzerland, 4370% for Luxembourg).<sup>25</sup> By the mid 1960s Hong Kong had also emerged as a regional international financial centre and this must be borne in mind when assessing the demand and supply of banking services in the Colony.<sup>26</sup> There was a considerable (although not well quantified) inflow of deposits from overseas Chinese that came to comprise half of total bank deposits, according to some estimates, and the Financial Secretariat believed that most time deposits in the 1960s were from overseas.<sup>27</sup>

The following descriptive statistics are based on new unpublished data, which allows a longer term view than has previously been possible and deeper analysis. The new data are

1. Pre-1961 balance sheet data (only deposits and advances have previously been used)

2. Recalculated total assets and liabilities for 1961-73 to exclude local note issue and associated assets.

3. Bank level data for 1964-1972

4. Monthly data from December 1964 (previously only available from June 1965)

Figure 3 shows the acceleration in the rate of growth of deposits and total assets from 1954-1964.<sup>28</sup> The impact of the 1965 banking crisis was a redistribution of deposits rather than an overall decline, suggesting that depositors correctly interpreted

<sup>&</sup>lt;sup>25</sup> Jaffee and Levonian, 'Structure of banking systems', p. 165.

<sup>&</sup>lt;sup>26</sup> Schenk, *Hong Kong*.

 <sup>&</sup>lt;sup>27</sup> 'Chinese Boomerang', *The Economist*, 18 Nov. 1967. This proportion was widely cited elsewhere.
 <sup>28</sup> In addition to the banks that made returns, the deposits data includes Hang Seng Bank. Total assets includes Hang Seng Bank and Liu Chong Hing Bank.

bank information rather than losing confidence in the banking system as a whole. In 1967, communist-inspired violence encouraged a flight of capital out of the colony and an absolute reduction in bank deposits.

## [insert Figure 3]

Figure 4 shows the trend in bank liquidity measured as the ratio of loans to deposits. The ratio increased from 1954, peaking in 1964 at 71% before falling back after the first banking crisis of 1965 and the disturbances of 1967 to 58%. This was about 10% lower than the comparable ratio in Singapore. When the demand for loans fell in 1964-67 lobbying by banks for anti-competitive regulation and claims that Hong Kong already had enough banking facilities were at their height. Figure 4 also shows the rise in the interest rate margin during the 1960s and 1970s. The rising trend, particularly in the 1970s when the loan/deposit ratio increased dramatically, suggests rising revenues for banks.

## [insert Figure 4]

Figure 5 shows the changes in how banks used their funds (together these two categories accounted for a stable 70-80% of total assets throughout the period). In the mid-1950s about half of funds were deposits or other assets with banks abroad but this share fell below 30% in 1961. About two thirds of the money was with banks in the UK in the 1950s, although an increasing share was in China and the USA by the end of the decade.<sup>29</sup> Much of this trend was driven by increases in loans and advances in Hong Kong, associated with local industrialisation and international trade expansion. There was an absolute fall in the amount due from banks abroad in 1964 (\$325m), reflected in an almost equal increase in local investments during the stock market and property boom of that year, but this was reversed over the next five years.<sup>30</sup> From the early 1970s there was increased demand for loans for local stock market investment.

## [insert Figure 5]

The growth in banking activity was accompanied by changes in the structure of the system. The number of licensed banks decreased from 133 in 1950 to 92 by 1954, and 82 by 1959. Figure 6 below shows that while the number of licenses was pretty stable by the 1960s and declined slightly in the 1970s, the number of bank

<sup>&</sup>lt;sup>29</sup> The unpublished data for the 1950s are in HKRS163-3-13.

<sup>&</sup>lt;sup>30</sup> After being in the doldrums in 1962 and 1963, the FEER share index rose from 116.4 in January 1964 to peak at 128.55 in December 1964.

offices increased sharply due to branching activity.

### [insert Figure 6]

Looking at Hong Kong in a comparative perspective for the 1960s, we need to recognise that this decade was a period of considerable banking expansion globally, not just in Hong Kong. Table 1 below compares the growth rate of bank assets of Hong Kong with selected OECD countries' commercial banks. This shows the acceleration in bank assets in Hong Kong, that it was considerably faster than elsewhere in the 1970s, and that it was comparable to that of Japan in the 1960s (during that country's period of high-speed growth). We would expect higher growth rates in Hong Kong, which started from a lower nominal level than these more highly developed economies.

## [insert Table 1]

Table 2 shows the increase in banking density in Hong Kong from its low level in 1960. In 1970, per capita GNP in Hong Kong was half of that of Japan but banking density in Hong Kong was less than one third that of Japan.<sup>31</sup> The table also shows a wide variety of ratios in Europe, Japan and the USA, although there was a general increase from 1960-1980.

## [insert Table 2]

Table 3 shows the concentration of banking in Hong Kong in 1960 compared with other countries. Again, this shows the wide range of banking structures internationally and that Hong Kong sits towards the middle of the group. [insert Table 3]

Table 4 shows some comparative indicators between Hong Kong and Singapore, its closest comparator. The Hong Kong banking system did grow considerably faster in terms of deposits and total bank assets in the 1960s, resulting in higher per capita bank deposits by 1971. The number of bank licenses per capita, however, was not very different between the two territories. The Singapore data for the 1960s are from Jao (1974) who explains that they are not strictly comparable because of the substantial deposits outside the Singapore banking system in the Post Office Savings Bank and finance companies. Including these deposits raises Singapore's per capita deposits to US\$743 in 1971 or 91% of Hong Kong's level.

[insert Table 4]

<sup>&</sup>lt;sup>31</sup> UN Statistics, http://unstats.un.org/unsd/. In 1970 Japanese GDP per capita was US\$1959 and for Hong Kong US\$978.

Hong Kong was a more developed economy than Singapore in the 1960s and hosted a much larger international financial centre. Taking these aspects into account, the growth of Hong Kong's banking sector does not seem so extraordinary in international perspective.

### **III** Measuring Market Concentration

The relationship between market concentration and competitiveness is intuitively attractive. We might assume that a higher degree of concentration is associated with greater market power among a smaller group of banks and therefore a lower level of competitiveness of the market and higher abnormal profits. However, the negative relationship has been shown not to be empirically (or even theoretically) reliable in the economics and industrial organisation literature.<sup>32</sup> High levels of concentration may still generate competitive markets. Nevertheless, market concentration is an important feature of assessing the nature of a banking system and helps to specify more precisely the situation historically in Hong Kong and compare it with more recent experience.

Figure 7 shows that the average size of banks in Hong Kong grew rapidly during the 1960s, particularly after the moratorium on new licenses in 1965, and this was mainly achieved through branch expansion. The average size of banks by offices rather than licence did not change much during this period. The number of bank offices did grow considerably, but to put this into perspective the growth rate was only slightly faster than GDP.

#### [insert Figure 7]

Within this average, however, there was considerable variation in size. Given the well-known dominance of the HSBC and Chartered Bank in both deposits and lending, the Hong Kong banking system might be expected to be highly consolidated even before the moratorium on new licenses in 1965. Between 1964 and 1968, the 10 or so banks with 1-2% market share lost position in terms of deposits, but gained in terms of advances. The trend in deposits was toward the largest banks.

Figure 8 shows the Lorenz curve for the market share of deposits and for Advances plus Specified Liquid Assets in 1968. This is the broadest measure of total assets available for bank level data. The associated Gini coefficient for is 0.756 in

<sup>&</sup>lt;sup>32</sup> Berger et al., 'Bank Concentration', Claessons and Laeven, 'What Drives Bank Competition?'.

1968 compared to 0.694 in 1964. The figure shows that market share for deposits was more concentrated than for assets.

[insert Figure 8]

The most common measure of market concentration is the Hirfendahl-Hirschman Index (HHI), which gives particular weight to the largest market participants. It is calculated as:

 $H = \Sigma_{i\text{-n}}{B_i}^2$ 

Where  $\mathbf{B} =$  market share of bank i

H=1 where one bank controls all the market, and H=1/n where every bank has an equal share. To give another perspective on the degree of concentration, we can calculate the number-equivalent of the HHI, or the number of banks that would deliver a given H if all banks were of equal size.<sup>33</sup>

m=1/H

In the case of Hong Kong's assets data, for 1964-68, m=9-10, or if all banks had an equal share of the market, then there would have been 9-10 banks. In fact there were 75-86 banks in these years.

Figure 9 shows an increase in concentration in advances during the banking crisis of 1965 and again during the political disturbances of 1967. In terms of deposits there was an increase in concentration in 1965, but no change in response to the disturbances of 1967. This is because the large, especially foreign, banks lost deposits in 1967 but there was a flow of deposits toward large banks in the banking crisis of 1965. The difference between the HHI for Advances compared to Advances plus Specified Liquid Assets reflects the sharp decline in the HSBC's Specified Liquid Assets compared to other banks in 1967. The higher concentration of deposits compared to assets reflects the presence of international banks with higher local loan/deposit ratios than local banks.

## [insert Figure 9]

The Herfindahl-Hirschman index has taken on an important regulatory role since its adoption in 1992 by the US Department of Justice and the Federal Trade Commission as a guide for their anti-trust policies. Their interpretation is that

<sup>&</sup>lt;sup>33</sup>Nissan, 'Changes in the size structure'.

markets where the HHI is between 0.1 and 0.18 are 'moderately concentrated' and those above 0.18 are 'highly concentrated'.<sup>34</sup> Using this guideline, the Hong Kong banking system would fall into the low end of 'moderately concentrated'. Moreover market concentration did not increase after the moratorium on new banking licenses in 1965. This index can also be compared with the HHI calculated for bank assets in 1994-2002, which showed a fall from .13 to .123 during this period, which was interpreted as indicative of an increasingly competitive environment.<sup>35</sup> The level of concentration for bank assets in the mid-1960s was considerably lower in the period 1964-72. The declining trend from 1968-72 suggests increased competitiveness of the market. Perversely, this analysis suggests that the moratorium was imposed at a time of heightened concentration due to the banking crisis of 1965, rather than at a time of increased competition, which was the justification for its introduction. Moreover, the moratorium does not appear to have increased concentration in the banking industry, suggesting that it may have protected the smaller banks disproportionately.

#### **IV** Profitability and Competitiveness

Measuring competitiveness is more difficult than measuring concentration. Various approaches have been used, including net interest margin, spread between lending and borrowing rates, and the Panzar-Rosse method (which requires bank level input-output data). Unfortunately detailed bank level data are not available for Hong Kong for the period 1960-80. Profitability can only be calculated by referring to the published balance sheets of each individual bank, but foreign banks were not required to publish data specific to their operations in Hong Kong. The quality of the information in the published balance sheets is also relatively poor with no disclosure of internal reserves or allocation for non-performing loans. Profits were reported after transfer to inner reserves, which were included in Deposits and Other Accounts. Still, if we can assume a generally consistent approach to these transfers then we can measure change over time.<sup>36</sup>

Based on balance sheets, Jao showed that, in common with elsewhere, small banks outperformed larger banks in terms of growth in deposits and profits from

<sup>&</sup>lt;sup>34</sup> www.usdoj.gov/atr/public/testimony/hhi.htm accessed 28/9/2005.

<sup>&</sup>lt;sup>35</sup> Gerlach et al., 'Macroeconomic Conditions'.

<sup>&</sup>lt;sup>36</sup> In 1982 the Monopolies and Mergers Committee saw the raw data for HSBC and confirmed that the accounts had been prepared consistently. Mergers and Monopolies Commission, *The Hongkong and Shanghai Banking Corporation*.

1965-71, although they showed higher volatility. Assets and capital on average grew faster for large banks.

## [insert Table 5]

The trend in profitability for HSBC (including overseas branches) in Figure 15 helps to explain why the bank was such a keen supporter of anti-competitive regulation. The return on assets increased from 1954-60, but then declined, reaching a low during the year of the 1967 disturbances. From this year, after the imposition of the moratorium on new licenses, profitability increased. In 1982 the bank reported that their profits in Hong Kong were 'much higher' than elsewhere. Similarly, the Standard Chartered Bank reported that their profits in Hong Kong more than trebled from 1977-80 while their global profits merely doubled.<sup>37</sup>

### [insert Figure 10]

Figure 11 shows the average return on assets for 14 locally incorporated banks whose balance sheets are publicly available, plus Chartered Bank's Hong Kong office from their archive records. This shows increasing profitability from 1964 onward punctuated by declines in the crisis of 1965 and 1967 and a surge in the boom of 1973. The profits for the five largest banks in Hong Kong (plus Chartered Bank) show a slower rate of growth than for the banks as a whole. Given that the banks excluded from the sample tend to be smaller, the gap between the rates of profit of large and small banks is likely to have been even higher.

[insert Figure 11]

### V Interest Rate Spread

Another way to get at the competitiveness of the market is looking at the spread between lending and deposit rates. A declining spread is evidence of an increasingly competitive market. In 1994 the Consumer Council claimed that the Interest Rate Agreement generated monopsony profits for banks based on the interest rate spread for 1978-91. They calculated that Hong Kong's Best Lending Rate-Fixed Deposit spread was 1.65% higher on average than other countries.<sup>38</sup>

The data for the 1960s are patchy but the trend shown in Figure 11 shows an increasing spread (calculated as the best lending rate less the weighted deposit rate),

<sup>&</sup>lt;sup>37</sup> ibid.

<sup>&</sup>lt;sup>38</sup> Hong Kong Consumer Council, 'Are Hong Kong Depositors Fairly Treated?'. The HKMA rebutted this aspect of the report, criticising it on the basis of comparability of the data. HKMA, 'Study on the Consumer Council Report'.

from about 1% in the third quarter of 1961 to 2% when the IRA was introduced and then rising above 3% in the later 1960s. This suggests that the market was becoming less competitive, which rather contradicts the contemporary testimony of the banks who complained about excessive competition.<sup>39</sup> The margins for small banks may have been lower than the margins for the larger authorised banks, but consistent evidence is not available. In 1964, before the IRA was imposed, it was reported that smaller banks offered 1/2-2% more for deposits and charged 1-6% more on loans.<sup>40</sup> The IRA was introduced in response to an 'interest rate war' with reported deposit rates as high as 10% for 12-month deposits and 6% for 7-day deposits during early 1964.<sup>41</sup>

#### [insert Figure 12]

The Financial Secretary, JJ Cowperthwaite was hostile to the introduction of interest rate controls in the 1960s, and his successor Haddon-Cave, was also critical of the generous margins that the commercial banks operated in the early 1970s.<sup>42</sup> By 1980, however, the financial secretary was a strong supporter of the IRA. The main reason he gave was that it protected small banks from competition, since it capped large and foreign banks at a slightly lower deposit rate than smaller riskier banks.<sup>43</sup> Since the permissible rates were determined by size of bank (foreign, local commercial, small) the Agreement also benefited the dominant bank in each category. Thus it prevented competition of other foreign banks against the HSBC and protected Hang Seng (owned by HSBC) by from competition from mid-sized banks. HSBC Group, therefore, benefited doubly. Restraints on price competition also led to increased competition through expanding branch networks.

### VI Competition and Crisis

The evidence for the increase in banking activity is clear, but the link between this trend and systemic instability as exhibited in the banking crises of 1961 and 1965 is

<sup>&</sup>lt;sup>39</sup> For the 1960s only BLR is available. The deposit rates are those prevailing at the large authorised banks, led by HSBC. Other banks paid 1/2 - 2% above these rates. *Nigel Ruscoe's Annual Hong Kong Register 1964*. Deposit rates are weighted by the share of deposits in each term category. <sup>40</sup> *Nigel Ruscoe's Annual Hong Kong Register 1964*.

<sup>&</sup>lt;sup>41</sup> This was reported by SC Chen in the *Far Eastern Economic Review*, 30 July 1964, p. 213.

<sup>&</sup>lt;sup>42</sup> Haddon-Cave speaking in the Hong Kong Legislative Council Hansard, 9 Jan. 1974. p. 351-2. He also expressed these views privately in the Banking Advisory Committee.

<sup>&</sup>lt;sup>43</sup> Financial Secretary speech 3 December 1980. Quoted in HKMA, 'Study on the Consumer Council Report', p. 8-9. The Financial Secretary stated that the second purpose of the IRA was to allow deposit rates to be used for the 'management of our monetary affairs'.

not. This case, therefore relates the large current literature on the relationship between competition and stability in banking.<sup>44</sup>

In the early 1950s excess capacity that had arisen due to the post-war financial turmoil in the late 1940s was remedied by exit of banks without systemic difficulties. In 1948 143 banks, many very small and with limited scope of business, were licensed under the new banking ordinance of that year, but this total soon declined. By 1950 there were 133 licensed banks, 92 by 1954, and 82 by 1959. Many closed of their own accord after the opportunities to profit from the gold trade, remittances or capital flight from mainland China declined. They merely sent their licenses back to the Banking Advisory Committee after winding up their business. Others, however, went bankrupt leaving dishonoured debts to depositors that sometimes led to public runs on these banks, but did not generate systemic contagion.<sup>45</sup> If there was a time of 'over-banking' it was arguably the 1950s when there were 133 banks rather than the 1960s when there were 74.

Another argument against the claim that small bank failures threatened systemic stability is that the failure of small banks did not always spark off a banking crisis. One case in the early 1960s (between the two banking crises, when it must be assumed that public confidence was fragile) was Chiu Tai Bank, whose offices were raided by the police in November 1963 because of allegations of fraud associated with a series of dishonoured cheques.<sup>46</sup> The bank came under scrutiny by the Deputy Economic Secretary, TD Sorby, in October 1961 when the Registrar General alerted him that the balance sheet for 1960 showed the bank to be insolvent. The Assistant Economic Secretary advised Sorby that 'this bank is small fry, but the loans to and through directors and the failure to provide for bad debts suggest that things are not being run as they should...I think that the worst danger about this kind of thing is that it is bad for the already dubious prestige of the Chinese banks'. He concluded that 'what I normally do in these cases is to write to the bank asking what they are going to do about the situation. Their answers are seldom convincing, but it seems worth while to show that the F[inancial] S[ecretary] cares, and has his eyes open.'<sup>47</sup> In the

<sup>&</sup>lt;sup>44</sup> Allen, D. Gale, 'Bank Competition and Stability'.

<sup>&</sup>lt;sup>45</sup> For details of prudential supervision in the early 1950s see Schenk, 'Banking Crises'. One bank closed in 1952 after it 'was besieged by its creditors when it failed to open its doors' after the New Year holiday. HKRS54-1a-5(3).

<sup>&</sup>lt;sup>46</sup> The details are drawn from HKRS163-3-7.

<sup>&</sup>lt;sup>47</sup> AS(E) to DES, 7 October 1961. HKRS163-3-7.

end, the bank was allowed to continue operating for two more years (although it was told not to open any new deposit accounts from June 1962) on the basis of repeated reassurances from the Managing Director (also the major shareholder) that he intended to improve the bank's position. The Commissioner of Police wanted to pursue a criminal prosecution in August 1965 but the financial secretariat refused to provide the resources to undertake a thorough audit of the bank's books.<sup>48</sup>

The danger of a run on the Chiu Tai Bank was considered unlikely by Sorby since most deposits were from family members of the owner, or from close associates. This reduced the case for suspending the bank's licence to protect the public even after the bank admitted that it was insolvent and after the first few large cheques were dishonoured at the beginning of 1963.<sup>49</sup> In February 1963 the Managing Director admitted taking more deposits from existing customers (against Sorby's instructions) since refusing to do so 'would have made them suspicious'.<sup>50</sup> Bad cheques continued to surface throughout 1963 and the bank was involved in a public dispute with BNCI that was reported in the newspapers, further undermining the reputation of the bank but no run occurred, and there was no systemic contagion. The incompetent or perhaps fraudulent operation of a small bank was not sufficient to cause systemic problems.

Using archive data for the 1965 crisis it is clear that there is no correlation between size of deposits in December 1964 (a month before the crisis) and the proportional fall in deposits during January and February (the first phase of the bank run). Figure 13 plots the relationship, leaving out HSBC to enhance the scale (HSBC's deposits were \$2.2b at the end of 1964 and increased by 8% during this period). This is confirmed by the correlation coefficient of –0.04 for size of deposits at the end of 1964 and liquidity ratio at the end of February 1965. There is a slightly higher correlation for local banks between size of deposits and change in deposits during the first round of the crisis but it is still low at -0.18 (compared to 0.06 for the banking system as a whole).

[insert Figure 13]

<sup>&</sup>lt;sup>48</sup> D.R. Harris to Colonial Secretariat (attn GCM Lupton for Financial Secretary), 26 Aug. 1965. Reply from Lupton 8 Sept. 1965. HKRS163-3-7.

<sup>&</sup>lt;sup>49</sup> Note by DES, 30 Jan. 1963. The view that the BAC should not be asked to revoke the license was confirmed by Cowperthwaite in March 1963 even after the bank's balance sheet showed loans in excess of total liabilities and no liquid assets to meet deposits. HKRS163-3-7.

<sup>&</sup>lt;sup>50</sup> Note of a Conversation between Sorby and Managing Director Chiu Tai Bank, 21 Feb. 1963. HKRS163-3-7.

Some of the largest deposit withdrawals during the first stage of the crisis were from branches of foreign banks. The Bank of Tokyo with \$98m in deposits fell 15%, the Bank of India with \$20m fell 22% and BNCI with \$134m fell 20%. It is not clear why there were such large withdrawals from foreign banks if the problem was merely due to contagion within the local banking system since they could draw on the resources of their head offices. Moreover there was no significant overall decline in deposits like there was when international confidence in Hong Kong was rocked by the Communist disturbances of 1967.<sup>51</sup> These multinational banks were not threatened by the local panic, and they tended to rebound by the end of the second phase of the crisis in April 1965. Table 7 shows that on average it was the banks with 1-2% of total deposits that suffered more than smallest banks in the first wave of the crisis and large banks (especially Hang Seng Bank) that were struck by the second wave of crisis.

## [insert Table 6]

Governance structures offer a more reliable explanation for instability than size. In the case of Hong Kong, the prevalence of family ownership or sole proprietorship of small banks could reduce incentives to engage in excessively risky behaviour since the reputation and also assets of the family or founding individual were at stake. For a public bank, in contrast, the burden of failure would be spread to shareholders and depositors. On the other hand, private family ownership increased the opportunity for poor management and fraudulent activity, which could be exaggerated when the family controlled a group of inter-linked companies as was often the case in Hong Kong.

Looking more closely at the causes of the bank crises in the 1960s shows that they did not stem from excessive competition, but rather from the complexity of inter-locking business groups that encouraged insider lending and reduced the liquidity of assets. This was not directly or exclusively linked to an excessively competitive environment. Liu Chong Hing Bank, which was at the heart of the 1961 crisis, had paid up capital of \$10m (twice the amount recommended in the subsequent Banking Ordinance) and was by no means considered a 'small' bank. Liu Po-shan and his eight sons owned a range of businesses vulnerable to property market shocks.<sup>52</sup> Investigation by Tomkins of the Bank of England revealed that

<sup>&</sup>lt;sup>51</sup> Overall, deposits fell only 1.8% from the end of 1964 to 25 February 1965. <sup>52</sup> Schenk, 'Banking crises'.

'the trouble was caused by the [Liu Chong Hing] Bank getting too deep into property...for its own account and for account of the former Managing Director Liu Po Shan who has since died. Shan dipped into the till to the extent of HK\$8m leaving his cheque in the safe in place of the cash i.e. 'borrowing' and not 'stealing'. The bank in its returns counted Shan's cheque as cash!'.<sup>53</sup>

Despite this evidence, HSBC and Chartered Bank took the opportunity to lobby the Financial Secretary for anti-competitive regulation, arguing that there were too many banks in Hong Kong, undermining the stability of the system as a whole.<sup>54</sup> Oliphant, deputy manager of the HSBC, himself drew up a draft banking ordinance that required the government to regulate opening hours, interest rates and lending policy.<sup>55</sup> The inclusion of opening hours suggests that there was a strong anti-competitive edge to his approach rather than merely concern for systemic stability. At this time, HSBC was losing market share as SME borrowing increased and there was more China-Hong Kong commercial business, areas where they had less expertise.<sup>56</sup>

The bank that sparked off the second banking crisis in February 1965 was the Ming Tak Bank with 3 offices and \$20m in total assets. This bank was solely owned and managed by Poon Kai Kwong who also owned a construction company, a contracting company, an investment company and a property company. It turned out that Poon had been taking in deposits to invest in the property boom of the early 1960s on his own account as well as drawing large amounts for 'entertainment expenses'.<sup>57</sup> The problem again was the link between the bank and associated companies that were vulnerable to asset market shocks. Poon was eventually sentenced to serve two years in prison for falsifying his accounts.

The Canton Trust and Commercial Bank that failed next was a much larger

 <sup>&</sup>lt;sup>53</sup> Letter from Tomkins (in Hong Kong) to Heasman (London), 1 March 1962, BE OV14/21.
 <sup>54</sup> Memo by Hallows of a conversation with JAH Saunders, 15 June 1961. Letter from P.L.Hogg to Heasman, 24 Aug. 1961. BE OV14/21.

<sup>&</sup>lt;sup>55</sup> Schenk, 'Banking Crises'.

<sup>&</sup>lt;sup>56</sup> Schenk, 'Finance of Industry in Hong Kong'.

<sup>&</sup>lt;sup>57</sup> In 1963-64 Poon drew on average HK\$18,000 per month for his personal use in addition to the entertainment expenses charged against property accounts. In 1964 he drew \$254,000 for entertainment expenses. WL Tse Memo for Nicoll (Senior Legal Adviser), 20 Sept. 1966. HKRS 55-9-3(1).

bank with 25 branches, HK\$176m (US\$29m) in deposits and HK\$139m (US\$23m) in advances at the end of 1964 making it the fifth largest bank in Hong Kong. It too was vulnerable to exposure to the property market (the vice chairman was a property developer). A run on the Aberdeen branch drained its liquidity on the eve of Chinese New Year when the demand for cash was traditionally high. In the end Canton Trust could not be saved and it closed its doors on 8 February.<sup>58</sup>

The other major casualty of the 1965 crisis was the Hang Seng Bank, the second largest bank in Hong Kong measured by deposits. Like Liu Chong Hing and Ming Tak, Hang Seng Bank was part of a network of companies engaged in a wide range of businesses.<sup>59</sup> In its analysis of the causes of Hang Seng's difficulties, the HSBC (who took over the bank as a result of the crisis) concluded that illiquid loans to group companies and heavy exposure to the property market were the main factors in Hang Seng's vulnerability.<sup>60</sup>

In none of these cases was the failure caused by the bank offering excessively high interest for deposits nor by excessive competition prompting risky behaviour. This section has argued that the threat to banking in Hong Kong was not the number of banks or their size, but the interlocking ownership of banks and other businesses that were prone to asset market shocks, combined with poor governance and weak supervision. Neither source of weakness was going to be rectified directly by anti-competitive regulation. The moratorium on new licenses might encourage foreign takeovers of local banks that would enhance governance, but only if families were willing to relinquish control, which they were not in Hong Kong.

#### VII Conclusions: Was Hong Kong 'over-banked'?

The history of the Hong Kong banking system, although important to understanding regional Asian capital flows and the development of Chinese business and banking, has been seriously undermined by the lack of data. The published data are inconsistent, too generalised, and begin relatively late. This paper has reconstructed data from archival sources, recalculated the data to increase consistency, and analysed new bank-specific data from official and private archives. This allows a more textured view of the structure of the banking system during the critical years of

<sup>&</sup>lt;sup>58</sup> Schenk, 'Banking Crises'.

<sup>&</sup>lt;sup>59</sup> Schenk 'Banking Crises'

<sup>&</sup>lt;sup>60</sup> Internal Audit, May 1965. GHO322/2, HSBC.

the 1960s when the regulatory framework for Hong Kong's banking system for the next 36 years was set.

The claims that Hong Kong was 'over-banked' can only be substantiated if market entry reduced the profits of existing banks to the extent of threatening bank solvency, or if the competition among banks led to higher risk in lending due to competition for sound outlets for loans. Both were claimed by Hong Kong's banks in the 1960s. There is no evidence of an overall fall in profits before 1964/5, but certainly there is evidence of an increase in profits after the moratorium was introduced. The interest rate spread also suggests that the competitiveness of the market was decreasing even before the 1964 interest rate agreement was introduced, and that this trend continued afterward. Market concentration was lower in the 1960s than in the 1990s. The moratorium was followed by a slight decline in market concentration, suggesting that it worked to defend the interests of mid-sized banks.

Examining the causes of the bank failures of the 1960s that triggered the anti-competitive regulation shows that the problem was not the size of the banks or excessive competition. In each case the bank was linked through family and group networks to other companies that were vulnerable to asset market shocks, in particular property. These banks engaged in insider lending within their group that ultimately threatened their liquidity and solvency. The solution to this problem was increased prudential supervision and enforcement not reduction in competition.

In terms of the *ex post* identification of over-banking it is difficult to make the case for Hong Kong. After the moratorium, there were several applications for further licences that were turned down, mainly from foreign banks wanting to enter the market. Moreover there was no subsequent phenomenon of consolidation or bank closure as has been used to identify over-banking in Europe – rather the reverse. The number of licensed banks was remarkably stable throughout the moratorium. On the other hand, in the 1970s there was a dramatic *increase* in deposit taking companies, suggesting that there was still considerable scope in the market at the profitable wholesale end at least. These are not the conditions in which we would identify over-banking in the 1960s.

The general conclusion of the analysis is that the diagnosis of the problem in the 1960s was wrong and therefore that the medicine of anticompetitive regulation was inappropriate. The regulators appear to have been effectively 'captured' by incumbent interests rather than regulating in the public interest. Nevertheless, the interest rate agreement and the controls on foreign entry were retained for a further 36 years and they had a profound effect on the development and character of Hong Kong's banking system.

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	Hong Kong	Japan	USA	Australia
1954-59	8.5			
1960-69	17.9	17	8.3	7.2
1970-79	27.6	14.1	10.7	14.5

Table 1: Average Annual Growth Rates of Total Assets of Commercial Banks

Source for other than Hong Kong, Competition in Banking, OECD 1989

Table 2: Number of Banking Offices per 100,000 Population

	Europe (9)	Japan	USA	Hong Kong
1960	38	34	13	4
1970	46	34	17	10
1980	50	35	23	23

Source for other than Hong Kong, Competition in Banking, OECD 1989

 Table 3:
 Share of Five Largest Banks in Total Assets 1960

Country	Share of Total Assets (%)
Germany	18
Austria	27
Italy	28
Japan	33
Denmark	46
Hong Kong	51
Belgium	69
Ireland	81
Greece	96

Australia and Belgium are 3 largest banks. Germany is end 1961. Hong Kong is 1964 and share of total advances. Source: *Competition in Banking*, OECD. HK data from HKRS.

	Cingonara
Table 4:         Comparison between Hong Keep	long and Singapore

	Singapore	Hong Kong
Per Capita Deposits 1971 (US\$)	636	815
Growth Rate of Bank Deposits 1960-71	14.5	20.6
Growth Rate of per capita Deposits 1960-71	11.9	16.7
Growth rate of Bank Assets 1960-71	13.7	18.7
GDP per Bank License 1970 (US\$m)	52.7	52.8
Bank License per 100k population 1970	1.74	1.84

Sources: First 4 rows for Singapore from Jao (1974), p. 115. Bottom 2 rows GDP and population data from UN data. Hong Kong data from author's calculations based on revised bank statistics.

		Large	Medium	Small
DEPOSITS	Range	14-29	8-30	0-78
	Mean	19.6	17.9	23.2
	Stand Dev	6.5	5.9	22.4
	Coeff Var.	.33	.33	.96
CAPITAL	Range	9-16	6-29	0-28
	Mean	13.3	13.9	10.3
	Stand Dev	3.1	6.9	8.3
	Coeff Var.	.23	.49	.8
PROFITS	Range	11-15	0-70	0-119
	Mean	13.3	26.1	37.3
	Stand Dev	107	19.9	32.7
	Coeff Var.	.12	.76	.87
ASSETS	Range	15-28	5-35	6-56
	Mean	20.6	17.5	18.4
	Stand Dev	5.4	7.1	16.1
	Coeff Var.	.26	.4	.87

## Table 5: Annual Growth Rates of Banks by Size 1965-1971

Percent

Source: YC Jao, *Banking and Currency in Hong Kong*, 1974, p. 63 Large: Capital account over \$50m, Deposits over \$200m, Assets over \$250m Medium: Capital \$15m-50m; Deposits \$50m-200m; Assets \$65m-250m Small: Capital <\$15m; Deposits <\$50m; Assets <\$65m

Share of Total Deposits Jan	Average % Change in	Average % Change in
1965	Deposits Dec 1964- Feb	Deposits Feb 1965-April
	1965	1965
>3%	-1.65	-8.59
2-2.99%	-2.82	-6.68
1-1.99%	-7.43	1.01
0-0.99%	-5.88	1.06

Table 6:Changes in Deposits and Size of Bank

Source: HKRS 163-1-722. The Average Change is the un-weighted average for banks in each category.





Percentage Difference Between Published Series and Recalculated New Series (excluding Notes and Inter-Bank Deposits)

Figure 2



Bank Loans and Total Assets as a Percent of GDP 1954-1981

# Figure3



Annual Growth Rate of Deposits and Total Assets

Figure 4









Principal Components of Bank Assets 1954-1980

Figure 6

Bank Expansion 1954-72



Source: HKIMR Historical Database





Figure 8









Herfindahl-Hirschman Index for Banks in Hong Kong 1964-1972

Figure 10





Source: King (1991)





Net Profit as Percent of Assets for a Sample of Hong Kong Registered Banks 1964-1980

Figure 12









#### Percent Change in Deposit and Size of Deposits at End 1964