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Exports, Re-exports and Economic Growth: The Case of Hong Kong

Patrick Yeung

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The author wishes to thank his colleagues, Professors T. Yancey, C. Judge and T. Takayama for their help in the programming aspects of this paper, and Professor Ronald Hsia and Dr. Y. C. Jao of the University of Hong Kong for their comments on an earlier draft. The author himself is solely responsible for remaining errors.
Foreign trade has always been Hong Kong's economic lifeblood. Entrepot trade flourished after World War II, until it became restricted by a United Nations embargo imposed against Hong Kong's major trading partner, Communist China, due to her Korean involvement. Since then, Hong Kong's economic growth has been attributed to "export industrialism."¹

Due to her limitations in natural resources, Hong Kong's island economy relies heavily on imports. Therefore, the import content of Hong Kong's exportables is generally very high. This is especially true of re-exports which provide economic rents due to Hong Kong's geographical location and middlemanship. Despite the substantial leakages from her domestic income stream because of imports, the well publicised fact remains that rapid economic growth has occurred in Hong Kong in the post-war period.

The purpose of this paper is to investigate the correlation between Hong Kong's economic growth and her growth in foreign trade, with emphasis on the export variables (domestic exports and re-exports) on the aggregate demand side. With the result, (i) the impact of the changes in Hong Kong's external trade on her domestic economy can then be gauged; and (ii) Hong Kong's GDP (gross domestic product) figures for recent years can be estimated. The latter solves a recently debated mystery about Hong Kong's GDP.

¹See [2].
Data

In many developing economies, one of the major problems with economic studies is the paucity of relevant statistics. Hong Kong is no exception in this regard. Fortunately, certain macroeconomic time-series data are available.

Regarding statistics on external trade, reliable figures are officially published monthly by the Department of Commerce and Industry, Government of Hong Kong [4]. As for other measures of Hong Kong's economic performance, data on Hong Kong's aggregate income have never been published by the authorities. Estimates of GDP\(^2\) for the period 1947-1960 have been made by E.F. Szczepanik [13]. More recently, these measures have been somewhat revised and extended by K.R. Chou to cover the period 1946-1964 [1].

However, figures for 1953-1964 only have been utilized in this study, because prior to this period, the nature of Hong Kong's economy was a rather different one. In connection with the Communist take-over of mainland China, many refugees and large sums of flight capital entered the Colony. For a while, Hong Kong's entrepot trade boomed due to the fact that the Communist regime on the

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1 Re-export figures were not published in [4] until 1959.

2 The domestic or geographical concept of aggregate output is more meaningful for Hong Kong than the national concept because, first, the term "nation" can hardly be applied to the Colony of Hong Kong; and, second, it is difficult to account for the output produced overseas by Hong Kong residents or to separate the output of foreigners residing in Hong Kong.
mainland was trying to strengthen itself through the acquisition of importable materiel. However, this booming trade was suddenly stifled by the UN embargo already mentioned. Thus drained of her traditional source of income — entrepot trade — Hong Kong was forced to choose a different mode of livelihood. With the expanded pool of entrepreneurial know-how, inexpensive skilled and unskilled labor and capital at hand, the embargo triggered off industrialization which, as evidenced by subsequent performance, led Hong Kong onto the path of successful economic growth.¹

Though a responsive domestic market helped in this success, the primary credit for Hong Kong's sustained growth must be given to the impact of her export industrialism.² On this basis, Hong Kong changed from her former primary role as middleman to becoming herself a "country" of origin of exports.³ It is this export-related growth which is the object of study in this paper. This being the case, the period 1953-1964 is chosen for this time-series analysis. Though it would have been preferable to use a longer period extending from 1953 to the present, comparable estimates for GDP after 1964 have not been published. Therefore, we shall have to be content with what is available for the 12-year period, 1953-1964. The relevant data collected for use in this paper are shown in Table 1.

¹ For a description of Hong Kong's industrialization, see [12].
² See [1, p. 38] and [2].
³ See, for instance, [14].
<table>
<thead>
<tr>
<th>YEAR</th>
<th>GROSS DOMESTIC PRODUCT (At Market Price)</th>
<th>GROSS DOMESTIC CAPITAL FORMATION</th>
<th>TOTAL EXPORTS (In HK$ Million)</th>
<th>DOMESTIC EXPORTS</th>
<th>RE-EXPORTS</th>
<th>TOTAL IMPORTS</th>
<th>POPULATION (In Million)</th>
</tr>
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<td>295</td>
<td>2734</td>
<td>635</td>
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<td>2939</td>
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<td>4387</td>
<td>3317</td>
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<td>1989</td>
<td>4991</td>
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<td>1160</td>
<td>7412</td>
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<tr>
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<td>10000</td>
<td>2431</td>
<td>5784</td>
<td>4428</td>
<td>1356</td>
<td>8551</td>
<td>3.69</td>
</tr>
</tbody>
</table>

**Sources:** Population figures (revised after the 1966 By-Census) are taken from Hong Kong Report(s) for the Year [5]. The other figures are from K.R. Chou, *The Hong Kong Economy: A Miracle of Growth* [1]. (The figures for GDP follow Dr. Chou's "Estimate 2," which he believed to be nearer to actual performance than his "Estimate 1."
In order to make the most mileage out of the limited categories shown in Table 1, we shall emulate Lord Keynes' ingenious art of using only the most strategic variable(s) as *explanadum* in postulating functional relationships (just as in the Keynesian consumption function, income is used as the key explaining variable [9]). With this strategy, we can economize on the number of variables under our present condition of limited data, while getting greater assurance of the validity of our findings which are based on well-established postulations.

Due to the lack of sufficient breakdowns into more detailed subcategories in some of the available data, much information might be lost in having to rely exclusively on aggregated figures. Furthermore, some measurement errors might accompany the available data. In this regard, however, one may take some comfort in realizing that one is spared the worry about the same kind of measurement problem with more detailed breakdowns which could conceivably aggravate rather than mitigate the difficulty in obtaining accurate functional relationships.

Some of the variables to be used are estimates (such as GDP) which might not be as accurate as others that are directly recorded values (such as the value of exports). In order to minimize errors which might arise therefrom in estimating functional relationships, we shall relegate variables susceptible to estimation errors to positions of dependent variables, leaving the role of independent variables to the recorded ones.

Just as we have made use of our knowledge of Hong Kong's economic history to restrict the time period under study, we shall also make
use of other prior information when it becomes applicable, as will be evident in what follows.

The Model

Let us describe the model used in this study, first leaving out, for the moment, certain constraints to be added later which involve the use of quadratic programming.

\[
Y = C + I + X - M \quad \text{(GDP -- identity)}^1 \\
C = a + bY + u_c \quad \text{(consumption function)} \quad ...... 2 \\
I = g + hY + u_i \quad \text{(investment function)}^2 \quad ...... 3 \\
X = X_d + X_r \quad \text{(total exports -- identity)} \quad ...... 4
\]

1Government consumption and investment are subsumed under C and I, because of their relative insignificance under Hong Kong's laissez-faire system. "Invisible exports" is implicitly included in C. This assumption is made out of necessity, as no estimates for the variable exist. However, since invisible exports are related to Hong Kong's prosperity (proxied by Y), some justification exists for making the assumption.

2Other writers, in describing investment in Hong Kong, have indicated some endogenous relationship between investment and income (see, for instance, [1, pp. 77, 95] and [12, pp. 93, 141]). Experimentation with addition of the accelerator to our model has not yielded good econometric results. Therefore, this simple designation of the investment function is deemed adequate here.
\[ X_d = X^o_d \quad \text{(domestic exports -- exogenous)} \]  \[ X_r = X^o_r \quad \text{(re-exports -- exogenous)} \]  \[ M = M_d + M_r \quad \text{(total imports -- identity)} \]  \[ M_d = m + nY + u_m \quad \text{(retained import function)} \]  \[ M_r = kX^o_r + v \quad \text{(import-for-re-export function)\(^1\)} \]  

where

\[ C = \text{consumption} \]
\[ I = \text{gross domestic capital formation} \]
\[ M = \text{total imports} \]
\[ M_d = \text{retained imports} \]
\[ M_r = \text{imports for re-export} \]
\[ X = \text{total exports} \]
\[ X_d = \text{domestic exports} \]
\[ X_r = \text{re-exports} \]
\[ Y = \text{gross domestic product} \]
\[ a, g, m = \text{autonomous consumption, investment, and imports, respectively} \]
\[ b, h, n = \text{marginal propensities to consume, invest, and import, respectively} \]
\[ k = \text{a positive constant less than 1} \]
\[ u_c, u_r, u_m, v = \text{stochastic variables} \]

(and superscript \( o \) indicates exogenous values).

By appropriate substitution,

\[ Y = \frac{a + g - m}{D} + \frac{1}{D} X^o_d + \frac{1 - k}{D} X^o_r + U \] \[ \ldots \ldots 10 \]

\(^1\)The usefulness of this function will become clear later.
where

\[ D = 1 - b - h + n \quad \text{and} \quad U = \text{stochastic term}. \]

\( \frac{1}{D} \) and \( \frac{1 - k}{D} \) may be recognised as the foreign-trade multipliers relating to \( X_d \) and \( X_r \), and will be referred to as the "domestic-export multiplier" and the "re-export multiplier," respectively.

Adjusting for population growth, Equation 10 is of the form

\[ y = \beta_0 + \beta_1 x_d^0 + \beta_2 x_r^0 + u \quad \ldots \ldots 10a \]

where \( y, x_d, \) and \( x_r \) are in per capita terms, \( u \) is the stochastic term, \(^1\)

\[ \beta_1 = \frac{1}{D} \quad \text{and} \quad \beta_2 = \frac{1 - k}{D}. \]

Using data for 1953-1964 as described earlier, and applying linear regression, Equation 10a is estimated to be \(^2\)

\[ y = 351.0135 + 1.69847 x_d^0 + 0.73485 x_r^0 + u \]

\[ (0.22057) \quad (0.32473) \quad R^2 = 0.94673 \]

Although standard statistical techniques have been followed, and the coefficients of \( x_d^0 \) and \( x_r^0 \) are both significant and \( R^2 \) is high, nevertheless an implication drawn from this estimation is questionable. \(^3\)

---

\(^1\) \( u \) is assumed to be normally distributed.

\(^2\) The bracketed numbers beneath the coefficients of \( x_d^0 \) and \( x_r^0 \) are their respective standard errors. \( R^2 \) is the coefficient of determination.

\(^3\) Also, contrary to our expectation, the coefficients (multipliers) are not significantly different in magnitude from each other at the 5% level. For the method of this test, see [7, p. 133].
The estimated re-export multiplier tells us that for every $1 million increase in re-exports, Hong Kong's income is expected to increase by $0.73485 million, which is unrealistically high. Thus the estimated values of the parameters of Equation 10a are misleading. Furthermore, if we look deeper into the model, we can find an expression for the expected or average rate of gross return (or percentage markup) in re-export (or entrepot) trade, which is

$$\frac{X_r - M_r}{M_r} = \frac{X_r - kX_r}{kX_r} = \frac{1 - k}{k}.$$ 

By referring to Equation 10a, $(1 - k)$ may be obtained by dividing $\beta_2$ by $\beta_1$, and it is found equal to 0.43265. Thus, $k = 0.56735$, and $\frac{1 - k}{k} = 0.76$. But this figure, supposed to be interpreted as the average rate of gross return in entrepot trade, bears little resemblance to reality, for casual empiricism reveals that a 76% return (or markup) is much too high on the average. The highest estimate one can find for this average rate in Hong Kong is one made by E.F. Szczepanik for 1951-53;\(^{1}\) but it was only 17% which is still much lower than 76%. Obviously some adjustment must be made in the statistical estimation procedures in our case. This is where the additional constraints mentioned earlier come in. By using prior information about the plausible interval of the expected rate of gross return in entrepot trade, we can improve our estimation of the parameters.

---

\(^{1}\)See [11]. Note that during the early part of 1951, Hong Kong was still enjoying the Korean War boom in entrepot trade. This should influence the estimate of the average rate of gross return to be on the high side.
First, it is reasonable to expect $\beta_0 > 0$, since at low levels of exports Hong Kong would still be producing positively. Secondly, noting that in re-exports the expected rate of gross return $= \frac{1 - k}{k}$ and $\frac{\beta_2}{\beta_1} = (1 - k)$, we can construct an appropriate constraint on the relationship between the estimated values of $\beta_1$ and $\beta_2$. This is done in the following manner:

Let $r = \frac{1 - k}{k}$.

Suppose $r_L < r < r_u$.

Then,

$$kr_L \leq 1 - k \leq kr_u$$

$$(1 + r_u)k \leq 1 \leq (1 + r_u)k$$

$$\frac{1}{1 + r_u} \leq k \leq \frac{1}{1 + r_L}$$

$$\frac{r_u}{1 + r_u} \geq 1 - k \geq \frac{r_L}{1 + r_L}$$

or

$$\frac{r_u}{1 + r_u} \geq \frac{\beta_2}{\beta_1} \geq \frac{r_L}{1 + r_L}$$

The constraints just stated may be summarized in the form

$$( -1 \quad 0 \quad 0 ) \begin{pmatrix} \beta_0 \\ \beta_1 \\ \beta_2 \end{pmatrix} \leq \begin{pmatrix} 0 \\ 0 \\ 0 \end{pmatrix}$$

Our problem now boils down to trying to estimate Equation 10a subject to this condition. Using the Method of Least Squares, this
amounts to a quadratic programming problem of

\[ \text{minimizing } u'u = (y - x\beta)'(y - x\beta) \]

subject to \( A\beta \leq 0 \)
\[ \beta \geq 0 \]

where, in matrix notation,

\[
A = \begin{pmatrix} -1 & 0 & 0 \\ 0 & -r_u/(1+r_u) & 1 \\ 0 & r_L/(1+r_L) & -1 \end{pmatrix} \quad \beta = \begin{pmatrix} \beta_0 \\ \beta_1 \\ \beta_2 \end{pmatrix} \quad x = (1, x_d^0, x_r^0).
\]

It may be solved with the technique developed by G.G. Judge and T. Takayama [8].

**Results**

As mentioned above, the highest estimate ever made of the expected or average rate of gross return in entrepot trade is 17%. Therefore, we will let \( r_u = .17 \). For the lower bound, let us choose \( r_L = .05 \), 5% being a very common markup percentage used in middleman transactions in Hong Kong. But, as most businessmen in Hong Kong will attest to, 17% is too high and 5% is perhaps too low on the average for re-export business. So later we shall also assume the rate to be 10%, which is the most common figure quoted by informed sources I have interviewed in Hong Kong.

Substituting .17 for \( r_u \) and .05 for \( r_L \), Equation 10a is estimated to be

---

1See supra, p. 9, n. 1.
\[ y = 864.65 + 1.3332 x_d^0 + 0.1937 x_r^0 + u \]

whence \( k \) is calculated to be .8548, and the average rate of gross return = .17, which is the upper bound of \( r \). The latter, statistically speaking, should not be surprising, since we are forcing \( r \) to be brought down from the previous unconstrained result of .76.

To obtain estimates of \( k \) while accommodating the plausible range of \( r \), we equate \( r_u \) to \( r_L \) and set them in turn equal to the extreme values of .17 and .05 as well as the intermediate value of .10. The three corresponding sets of estimates calculated from the results of quadratic programming as previously explained are given in Table 2, the intermediate set being the one believed to bear the closest resemblance to reality.

The estimated magnitudes of the foreign-trade multipliers are also given in Table 2. One might be suspicious of the smallness of the domestic-export multiplier and the re-export multiplier. The reason for their being as small as they are lies in the fact that significant "leakages" exist in Hong Kong's economic system, since Hong Kong relies heavily on imports for the fabrication of domestic exportables and for re-exports. Due to the sizeable import component in re-exports, the re-export multiplier is expected to be significantly smaller than the domestic-export multiplier, which is exactly what is shown in Table 2.

Table 2 also includes the percentage distribution of the sequential

\[ 1 \text{For } r = .17, \, u'u = 861.1665. \, \text{For } r = .10, \, u'u = 938.542. \, \text{And for } r = .05, \, u'u = 998.5837. \]
<table>
<thead>
<tr>
<th>r</th>
<th>k</th>
<th>Domestic Exports</th>
<th></th>
<th></th>
<th>Re-exports</th>
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<th></th>
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</thead>
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<tr>
<td></td>
<td></td>
<td>Multiplier</td>
<td>Immediate</td>
<td>Subsequent</td>
<td>Multiplier</td>
<td>Immediate</td>
<td>Subsequent</td>
</tr>
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<td>.17</td>
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<td>75%</td>
<td>25%</td>
<td>.1937</td>
<td>75%</td>
<td>25%</td>
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<tr>
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<td>78%</td>
<td>22%</td>
<td>.1165</td>
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<td>22%</td>
</tr>
<tr>
<td>.05</td>
<td>.9524</td>
<td>1.2424</td>
<td>80%</td>
<td>20%</td>
<td>.0592</td>
<td>80%</td>
<td>20%</td>
</tr>
</tbody>
</table>
effects of exogenous changes in domestic exports and re-exports on GDP. This is the result of another important feature of our model. To explain this, suppose re-exports change by 1 million dollars. The immediate addition to effective demand is in the order of \( \Delta(X_r^0 - M_r) = \Delta(X_r^0 - kX_r^0) = (1 - k) \Delta X_r^0 \) where \( \Delta X_r^0 \) is one million dollars. The total effect on aggregate demand, however, is given by the value of the re-export multiplier \( \left( \frac{1 - k}{D} \right) \) times a million dollars. Thus, the ratio of the immediate (initial or direct) effect to the total effect is \( D \). In other words, the immediate effect is \( D \times 100\% \) of the total effect, the subsequent (or indirect) effect constituting the remainder. In the case of domestic exports, the total effect of a million dollar change in domestic exports on GDP is \( \frac{1}{D} \) million dollars. Thus, the ratio of the immediate effect to the total effect is again \( D \). These results tell us that while the magnitude of the domestic-export and re-export multipliers are clearly very different, one being much larger than the other, exogenous changes in either domestic-exports or re-exports produce the same percentage breakdown of the total impact into immediate and subsequent contributions to Hong Kong's economy.

The basis for this interesting property of the model is the obvious fact that the two different kinds of foreign trade are financed through the same or related financial institutions, and the earnings from them are spent in the same way. Hence the repercussions of exogenous changes in domestic-exports and re-exports should be closely related.

(Table 2 also shows that as \( r \) increases, the immediate effect of exports on GDP drops while that of subsequent feedbacks correspondingly
The use of prior information concerning $\beta$ in estimating Equation 10a strengthens the credibility and reliability of our results compared with those previously obtained without the use of the constraints. We can now use the result from the constrained estimation of Equation 10a and the value of $k$ derived therefrom to estimate, in turn, the values of imports for re-export for 1953-1969 and of GDP for 1965-68.

With $k$ and $X^O_T$ given, the expected value of imports for re-export may be computed by Equation 9: $M_T = kX^O_T + v$. Knowing the values of total imports ($M$) and the estimated values of imports for re-export ($M_d$), the estimated value of retained imports ($M_r$) also can be calculated using Equation 7: $M = M_d + M_r$. The computed figures are shown in Table 3.

With data for Hong Kong's domestic-exports and re-exports for the recent years, 1965-68, for which GDP figures comparable to those prepared by Szczepanik and Chou are not available, we can estimate the latter using Equation 10a provided of course the underlying conditions continue as they were during 1953-1964. Three sets of

---

1Our definition of retained imports ($M_r$) is different from and is more accurate than the stop-gap convention, which simply subtracts re-exports from total imports, commonly used by the Hong Kong Commerce and Industry Department for want of more exacting data (see, for instance, [3, pp. 14, 34]).

2This appears to be a reasonable assumption, as the 1965 banking crisis and the 1967 political riots did not produce significant adverse effects on Hong Kong's overall economy, as seen from her trade activities and the stable behavior of her money supply (also see [6, p. 41]).
### TABLE 3

(In HK$ Million)

<table>
<thead>
<tr>
<th>Year</th>
<th>Imports for Re-export</th>
<th>Retained Imports</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>$k = 0.8548$</td>
<td>$k = 0.9091$</td>
</tr>
<tr>
<td></td>
<td></td>
<td>$k = 0.8548$</td>
</tr>
<tr>
<td>1953</td>
<td>1794.6</td>
<td>1908.2</td>
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<tr>
<td>1954</td>
<td>1327.8</td>
<td>1411.8</td>
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<tr>
<td>1955</td>
<td>1309.0</td>
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</tr>
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<td>1956</td>
<td>1791.2</td>
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<tr>
<td>1957</td>
<td>1551.0</td>
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<tr>
<td>1969</td>
<td>2290.1</td>
<td>2435.6</td>
</tr>
</tbody>
</table>

**Note:** The three values of $k$ (0.8548, 0.9091, 0.9524) correspond respectively to the three values of $r$ (0.17, 0.10, 0.05). See Table 2.
<table>
<thead>
<tr>
<th>Year</th>
<th>Domestic Exports (In HK$ Million)</th>
<th>Re-exports (In HK$ Million)</th>
<th>GDP (At Current Market Prices)</th>
<th>GDP Per Capita (In HK$)</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td></td>
<td></td>
<td>High</td>
<td>Intermediate</td>
</tr>
<tr>
<td>1965</td>
<td>5027</td>
<td>1503</td>
<td>10183</td>
<td>10098</td>
</tr>
<tr>
<td>1966</td>
<td>5730</td>
<td>1833</td>
<td>11219</td>
<td>11075</td>
</tr>
<tr>
<td>1967</td>
<td>6700</td>
<td>2081</td>
<td>12647</td>
<td>12441</td>
</tr>
<tr>
<td>1968</td>
<td>8428</td>
<td>2142</td>
<td>15050</td>
<td>14757</td>
</tr>
</tbody>
</table>

Note: The high, intermediate and low estimates of GDP correspond respectively to the three values of .17, .10 and .05. The mid-year population figures for 1965-68 are 3.69, 3.73, 3.83, 3.93 (see [5]).
estimates are made (high, intermediate and low) corresponding to the high, intermediate and low values of \( r \) assumed. The results are shown in Table 4.

**Summary and Conclusion**

In this study, a macroeconomic model is constructed for Hong Kong's island economy which has experienced export industrialism since the early fifties. An outstanding feature of Hong Kong's economy is her relatively important engagement in entrepot trade. Thus, prior information (both quantitative and qualitative) about these facts is utilized, to delineate the period of the time series used in the study, and to give plausible signs and certain ranges to the parameters in Equation 10a. In the latter case, an explicit numerical constraint is formulated, making it possible for us to obtain our results by using the quadratic programming technique developed by Judge and Takayama.

With the constraints satisfied, greater credibility is given to our results. Although the computer program used does not compute standard errors for us so that we can obtain confidence intervals for our estimates, this is compensated by our establishing upper and lower bounds as well as an intermediate (most plausible) value for our estimates.

We have made estimates for the value of Hong Kong's imports for re-export in order to make the breakdown on the import side (not made in the official figures published by the authorities) comparable to that on the export side. The estimated values of imports for re-export
are found to be consistent with the fact that retained imports have been occupying an increasingly large proportion of Hong Kong's total imports.

Due to the existence of large import-leakages, the magnitudes of Hong Kong's foreign-trade multipliers are rather small. The domestic-export multiplier differs significantly from that of re-exports because the import component in re-exports constitutes a sizeable leakage, detracting from the net contribution made to aggregate demand. Nevertheless, exogenous changes in either domestic exports or re-exports produce the same percentage distribution between the immediate effect on aggregate demand and that of subsequent repercussions.

Our estimates of Hong Kong's GDP for 1965-68 compare very closely to those recently made by Y.C. Jao based on a study of Hong Kong's money supply. These estimates should be more accurate than the impressionistic ones found in Pick's Currency Yearbook [10].

\[1\] Jao's estimates are as follows: (at current prices)

<table>
<thead>
<tr>
<th>Year</th>
<th>GDP (At Factor Cost) (In HK$ Million)</th>
<th>GDP/Per Capita (In HK$)</th>
</tr>
</thead>
<tbody>
<tr>
<td>1965</td>
<td>10519 ± 1346</td>
<td>2849 ± 365</td>
</tr>
<tr>
<td>1966</td>
<td>11765 ± 1685</td>
<td>3152 ± 451</td>
</tr>
<tr>
<td>1967</td>
<td>11845 ± 1915</td>
<td>3089 ± 499</td>
</tr>
<tr>
<td>1968</td>
<td>13765 ± 2850</td>
<td>3506 ± 726</td>
</tr>
</tbody>
</table>

with 95% confidence [6, p. 42]. Our "intermediate" estimates should be slightly higher than Jao's expected values, since his are for GDP at factor cost while ours are for GDP at market price.

\[2\] For instance, Pick's figure for per capita GNP for 1968 is HK$3000 which, considering it is for GNP rather than GDP, is rather low compared with Jao's expected value of HK$3506 for per capita GDP at factor cost, or my "intermediate" estimate of HK$3755 for per capita GDP at market price.
REFERENCES


[5] Hong Kong Government, Hong Kong Report(s) for the Year (Hong Kong: Government Printer, annually).


