REGULATORY INTERVENTION AS AN EXPLANATION FOR THE INITIAL PUBLIC OFFER PREMIUMS OF FIRMS LISTED ON THE MAIN AND SECOND BOARD OF THE KUALA LUMPUR STOCK EXCHANGE

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INTRODUCTION

Documented research findings on the performance of Initial Public Offers (IPOS) in emerging and developed markets do support the notion that new issues are systematically under priced in these markets. However, the degree of under pricing is more profound in emerging or developing markets presumably due to higher issuing risk (refer to Table 1).

Table 1
Underpricing of New Share Issues in Developed and Developing Markets over Different Test Periods.

New Issue Markets		Research	Initial Underpricing
Developed Economies			
1.	Australia	Finn & Higham (1983)	21.9%
2.	United Kingdom	Buck et al. (1983)	9.1%
3.	United States	Ibbotson (1975)	18.9%
		Ibbotson et al. (1988)	
		Ritter (1984)	
Developing Economies			
1.	Malaysia	Shamsher, Annuar & Ariff (1994)	133%
2.	Singapore	Koh et al (1989)	36.85%
		Dawson (1985)	

The average underpricing in these markets range from 30 percent for Singapore to 133 percent in Malaysia (Shamsher, Annuar & Ariff, 1994) and for the developed markets the values range from 9 percent for the United Kingdom to 22 percent for Australia (Ariff & Prasad, 1994). The literature offers several explanations for the underpricing, which among others include compensation for uncertainty of future performance (Beatty & Ritter, 1986), enhancing the probability of successful issues by merchant investment bankers (Baron, 1982; Tinic, 1988), rewards for informed investors to participate (Rock, 1986), and costs of seasoning new issues (1975). These explanations, however, cannot fully explain the large underpricing of Malaysian IPOs.

The Malaysian new issues are subjected to special listing requirements that could justify the large level of underpricing. Firms seeking listing approvals must submit their application to the Securities Commission, which includes the audited prospectuses, the forecasted performance, and the offer price to the public. The offer price is subjected to revision by the committee, which is represented by the representatives of various relevant government agencies and the listing firm. The average lead-time between application, approval and listing is on average 6 months. The allocation of shares for the public is through the lottery system and shares are listed three days after all successful investors had been notified. This implies that the agreed offer price is not subjected to the constraints of changing market conditions and approval lead-time. This peculiar arrangement to fix an offer price to the satisfaction of the firm itself and relevant government agencies designated to implement the new economic policy of equitable distribution of capital wealth among the different ethnic groups in the country, necessitates the offer price to be fixed at a lower level. The low offer price not only benefits the designated institutions who are guaranteed at least a 30 percent of the total shares offered for public, but also to cater for the possibility of changes in market conditions. The average volatility of returns on the KLSE is 32 percent compared to 13 percent in New York Stock Exchange. In developed markets, the offer price is determined by market demand for the issue through red-herring offers, and the average lead-time for listing is about 4 weeks.

A New Economic Policy was instituted in 1976 to restructure the ethnic distribution of private capital ownership, which mandates that at least 30 percent of any new issues on offer by private and government companies are to be sold to indigenous Bumiputra population or institutions owned by them such as the Permodalan Nasional Berhad (PNB). The Securities Commission complies with this rule as a part of the approval procedure for listing. This arrangement seems to reason well the high level of underpricing of Malaysian IPOs, in addition to the other regular universal explanations for new issues underpricing.

This paper examines the short and long-term performance of IPOs on the Main and Second Board of KLSE, and the role of the New Economic Policy in generating the high level of underpricing in Malaysia. There is some evidence that the new issues underpricing is higher in the initial period and lower in the long run (Aggrawal and Rivoli (1990) consistent with the demand pressure as an explanation for substantial underpricing.

PRIOR RESEARCH

The high discount over the offer price on the first day of listing is usually explained due to investment banker's incentive to increase the chance of success of the new issue. This underwriter reputation hypothesis suggests that investment bankers try to reduce the sales risk by lowering the new share issue prices. Baron (1982) assumes that investment bankers are better informed about investors' demand for new issues, and therefore the issuing companies delegate the pricing decisions to them. The issuer compensates the bankers for their superior information by allowing them to offer the new issues at a discount from the expected price after listing. The magnitude of the discount is an increasing function of the degree of issuer's uncertainty about market demand for the issue. Ritter (1984) suggests that this uncertainty varies over different periods with lowest uncertainty at or near the peak of the business cycle, when most of the new issues are usually issued. Beatty and Ritter (1986) explains the initial underpricing as a reward for higher riskness of the new issues due to ex ante uncertainty about the future profitability of the firm.

Ibbotson (1975) and Ibbotson et al. (1988) document higher risk for new issues than the average shares in the market and suggests that the source of the underpricing is the high rewards for assuming the high risk.

Aggrawal and Rivoli (1990) suggest that shares are issued at their intrinsic value but the share prices tend to bid up by an overly optimistic investment market during the initial period of the listing because of the demand pressure (also termed as market fads) from publicity. They provide evidence that investors who bought on the listing date and kept the shares over the next 250 days lost on average of 13.75 percent, consistent with the demand pressure hypothesis. Speculative traders who buy shares in the secondary market either due to not being allocated the new issues through the public lottery system and/ or being allocated fewer shares than desired leads to overpricing of the new issues temporarily in the initial period. This demand pressure moves the prices beyond the intrinsic value in the short-run (Ritter, 1991) and if this suggestion is true of the Malaysian IPOs the prices of the new issues should decline in the long run. Rock (1986) suggests that due to asymmetry of information between issuer and their investment bankers, the pricing decision is delegated to the bankers who offer discounts to lure potential informed investors to participate and reveal the true price of the shares. On the contrary, the uninformed investors will end up buying more of the overpriced issues not taken up by informed investors. This is the "winner's curse" in that the uninformed investors' investment in shares through the lottery allocation system ultimately result in losses.

Documented evidence of underpricing in developed and developing markets in Table 1 reveal that Malaysia's underpricing is the highest for any market studied. A comparison of the level of initial underpricing to the average long-run share market returns in the developed and developing economies (refer to Table 2) through the ratios of average underpricing to the normal returns is documented in the respective markets. The ratio of 7.38 is highest for Malaysia compared to Singapore (2.03) and the developed market with an average ratio of 1.5. Singapore and Malaysian share markets functioned as twin markets until January 1990, and the average normal returns in these markets (Malaysia 18% versus Singapore's 16%) is almost equal yet their respective ratios are wide apart. This highlights the unique characteristic of Malaysia's underpricing. However, the Malaysian and Singapore markets generated higher ratios relative to the ratios documented for the developed share markets.

Table 2

Average Underpricing Relative to Long-run Average Returns

In Selected Secondary Markets

Market Ratio of Underpricing	Average Underpricing	Long-run Average Returns	 To Returns
Australia	21.9%	13%	1.68
United Kingdom	9.7%	8%	1.21
United States	18.9%	12.4%	1.53
Malaysia	133%	18%	7.38
Singapore	36.5%	16%	2.03

RESEARCH METHOD & HYPOTHESIS

(a) *Research Design & Data*

To test the possibility of the New Economic Policy as a driving force behind the high level of underpricing, the average underpricing prior to and after implementation of the new policy is analyzed. The research design is based upon the analysis of 38 new issues in the prior period and 73 new issues in the period after the new policy was implemented. The analysis of long-run performance of IPOs was conducted over a period of three years.

The required data was sourced from various issues of KLSE Investors Digest, KLSE Daily Diary, the records in the Registry of Companies and interviews with the officials of the KLSE. For each new issue, information on the offer price and closing prices of daily interval (the first day), weekly (first week), and monthly intervals (first to thirty-sixth month) of trading was extracted.

The offer price of each new issue was compared with the market price at the closing of first day, first week, and the first month of listing to provide for the gross returns for the intervals. The gross returns over the second to thirty-sixth months were computed as returns over prior months and were calculated in addition to the discount at the close of each of these months over the offer prices. These returns were then adjusted for market-wide price changes by subtracting the returns on the KLSE Composite Index (for the period before the Composite Index was introduced, the New Straits Times Index was used as the proxy for market portfolio), in accordance with the accepted methodology for adjusting market-wide changes (Levis and Mario, 1993).

The Malaysian IPOs include a large number of government companies, which have a low-systematic risk; the average systematic risk of all new issues from the post-listing price is about 1.15. This suggests that the level of average underpricing is a conservative estimate and might be even slightly higher. Hence, the failure to adjust for risk differences of new issues is unlikely to significantly affect to findings.

The average rate of underpricing after adjustments for the market – wide price changes is estimate as follows:

$$MAU_t = (N)^{-1},\ \sum i = 1, \ldots.N,\ [R_{it} - E(R_{mt})]$$

Where

MAU_t : average market-adjusted underpricing returns at time t;

N : the number of new issues (i=1…N) covered in each period relative to the implementation of the public policy;

$E(R_{mt})$: the rate of market returns from KLSE Composite Index;

Σ : is the summation operator

The average market-adjusted underpricing returns (MAU) of each new issue for the period prior to the New Economic Policy adoption covers the period 1969 to 1975: thirty-eight new issues were sampled for the period. The new issues after the implementation of the policy covers the period 1976 to 199 seventy-three new issues were sampled for this period. The short-run performance constitutes the initial MAU over the first day, first week, and first to six months: the MAUs over seventh to thirty-sixth months refer to the long run. This will allow the comparison of short and long run performance of Malaysian IPOs and analyze the validity of the demand pressure hypothesis suggested by Aggrawal and Rivoli (1990).

ii) Hypotheses

H_1 : The average initial (first day, first week, first month) underpricing of new issues is significantly greater than zero in the pre- and post-new policy periods

This hypothesis tests whether the short-term underpricing of new issues is significantly greater than zero in the pre- and post-new policy periods. It will substantiate the present evidence on the underpricing of Malaysian IPOs and also tests the underpricing under conventional explanations. Rejection of the null hypothesis of H_1 is a test of significant initial excess returns to reconfirm and also to quantify a reliable estimate of underpricing in Malaysia.

H_2 : The average initial underpricing of the new issues in the post-new policy period is significantly higher than the initial interval underpricing in the pre-new policy period

This hypothesis tests whether the implementation of the New Economic Policy since 1976 has increased the size of underpricing. Rejection of the null hypothesis will support to this notion, consistent with the objective of the policy to fairly distribute the ownership of private capital in the economy.

H_3 : The short-run average underpricing is higher than the long-run average underpricing

This hypothesis tests if the short-run and the long-run performance are systematically different. Rejection of the null hypothesis will support the demand pressure hypothesis.

H_4 : The Underpricing on the Second Board IPOs is higher than that of the Main Board.

This hypothesis tests if the short-run and long run average market adjusted premiums on the Second Board is higher compared that of the Main Board IPOs. The Second Board lists smaller companies with fewer years of track record and is not as established as the Main Board firms, implying greater uncertainty and expected underpricing compared to Main Board firms. The rejection of the null hypothesis will support this conjecture.

FINDINGS

(i) *Underpricing in the pre and post policy period*

For the period of study (1968 to 1991) there were 111 companies listed on the KLSE. An analysis of the MAU over this period shows that only three new issues were priced lower that the offer price during the pre-policy period and all the 73 listings in the post-policy period earned positive returns in the initial period of listing. The lowest underpricing for the whole period was negative 25 percent and the highest was 569 percent. The average MAU over the whole period is 97 percent or 5.4 times the average of the long-term returns on the KLSE. This is relatively greater than the underpricing in the other markets. The risk in the pre-period as measured by the standard deviation of the MAU was 55 percent compared to the 133 percent in the post-policy period. However, the risk per unit of returns (as measured by the coefficient of variation) in the pre-policy period is similar to that of the post-policy period (0.97 versus 1.01 respectively).

Results summarized in Table 3 show that the average MAU returns on the first day of listing is 57 percent in the pre-policy period compared to the 118 percent in the post-policy period. Both these returns are significantly greater than zero at 0.01 level (the t-values are 8.67 and 6.36 respectively). Measured in terms of the average market returns on the share market (18 percent), the pre-policy MAU returns are 3.2 times greater and the post-policy MAU are 6.6 times greater. The first day, first week and first month MAU returns are about the same with minor differences in the pre and post-policy period. This evidence is similar to that a Shamsher, Annuar & Ariff (1994) and Dawson (1985). These findings provide evidence for the underpricing hypothesis, H_1, as valid in developing (or sometimes termed as emerging) share markets. The relatively high level of underpricing of the Malaysian IPOs cannot be completely explained by conventional explanations.

Table 3

Underpricing of Malaysian New Issues in the Pre and Post-New Economic Policy Implementation Periods

	Pre-New Policy Period (1968-1975)		Post-New Policy Period (1976-1991)	
	Average Underpricing	t-Stat.	Average Underpricing	t-Stat.
First Day	**57%**	**6.36**	**118%**	**8.67**
First Week	**59%**	**6.25**	**111%**	**9.74**
First Month	**60%**	**6.11**	**109%**	**9.40**

Note: All t-statistics shows significant at 0.01 levels.

The comparative analysis of price performance during the pre and post-policy implementation periods documented in Table 4. The difference in market-adjusted returns is 61% (first day), 52% (first week) and 49% (first month) respectively. Though there is a gradual reduction in the returns over different time intervals, the magnitude of the returns is large and statistically significant at 5 percent level.

Table 4

Comparison of Underpricing of Malaysian New Issues in the Pre And Post-New Economic Policy (NEP) Implementation Periods

	Pre-NEP Period (1968-1975)		Post-NEP Period (1976 – 1991)		Comparison over Pre and Post Periods	
	Average MAU	**t-Stat.**	**Average MAU**	**t-Stat.**	**Difference**	**t-Stat.**
First Day	57%	6.36	118%	8.67	61%	2.47
First Week	59%	6.25	111%	9.74	52%	2.11
First Month	60%	6.11	109%	9.40	49%	1.99

Note: All t-statistics significance difference from zero at 0.01 levels except the value 1.99 which is significant at 0.05 levels

This suggests that underpricing in the post-policy period is significantly larger than the underpricing in the pre-policy period, in support of the notion that regulatory intervention is an important explanatory variable for the relatively large underpricing. Since the coefficient of variation in the two periods are almost similar (around one), the differences in the market adjusted returns cannot solely be due to the difference in volatility experienced in the two periods.

The shares listed in the Malaysian share markets were double-listed on the Singapore share market since 1960s and were only withdrawn in 1990. The average underpricing in the Singapore market for both the Singapore and Malaysian new issues has been about 40% throughout the whole period before the introduction of the economic policy in 1975. With the new policy adopted, the Malaysian share market began to yield substantially higher returns from 1976, which did not happen in the Singapore market, where no such public policy is in practice. This difference in behavior of the prices of new issues in the twin markets substantiate the evidence above that the public policy is a significant contributor to the larger level of underpricing of Malaysian IPOs since 1976.

ii) Short and Long-run performance of IPOs.

The short-run price performance of new issues is measured over first to six month (refer to Table 5) after listing. During the pre-policy period, the average underpricing for the first month (60%) varies substantially from that of the sixth month (42%). In the post-policy period, the average of the first month (109%) declines marginally in the third month (103%) and increases to 109% in the sixth month, therefore maintaining the average underpricing in the short-run for the 1976-1991. For the second sub-period (1992-1996) the average underpricing in the short-run is also maintained, though it is smaller in magnitude than the first sub-period (1976-1991) underpricing. This decline in the average underpricing could be due to reduction in uncertainty due to greater transparency required through mandatory disclosure requirements and the stringent enforcement by the Securities Commission. However, the average underpricing in the second sub-period is still greater than that of the pre-policy period. All the average returns are statistically significant at least at 0.05 levels. The high average underpricing in the first six months could be due to an increase in demand from the investing public for the new issues, in view of the profitable opportunity of investing in new issues and therefore buying the shares in the secondary market if they are not allocated through the balloting or they have been allocated less shares than they desire. The increase in demand for new issues is evidenced by the average over-subscription rates of [illegible] times in the post-policy period.

The long-run performance of new issues (refer to Table 6) in the pre-policy period shows a marginal decline in the average underpricing from 28% in the first year to 24% in the third year. A similar trend was observed for the short-run performance, probably due to the absence of the government's involvement in the pricing of the new issues. The average underpricing in the post-policy declined substantially from 100% in the first year to 59% in the third year. For the period 1992 to 1996, the average underpricing declined gradually from 59% in the end of first year to 56% at the end of third year. The average long-run market-adjusted underpricing in the post-policy period is significantly greater than that of the pre-policy period, in support of the public policy intervention conjecture.

These findings also support the price pressure hypothesis, which suggests that the prices are sustained at high levels in the initial period, leading to higher underpricing in the short-run relative to long run underpricing.

Table 5

Short-Run Underpricing (MAU) of Malaysian New Issues in the Pre and Post-New Policy Implementation period

	Pre-New Policy Period		Post-New Policy Periods			
	(1968-1975)		(1976-1991)		(1992-1996)	
	MAU	t-Stat.	MAU	t-Stat.	MAU	t-Stat.
First Month	60%	6.11	109%	9.40	72%	3.63
Third Month	49%	4.96	103%	8.65	73%	3.75
Sixth Month	42%	3.84	109%	9.04	71%	3.61

Note: All t-statistics indicate that the market-adjusted underpricing is significant at one percent level.

Table 6

Long-Run Underpricing (MAU) of Malaysian New Issues in the Pre and Post-New Policy Implementation Period

	Pre-New Policy Period		Post-New Policy Periods			
	(1968-1975)		(1976-1991)		(1992-1996)	
	MAU	t-Stat.	MAU	t-Stat.	MAU	t-stat.
7 to 12th Month	28%	2.55	100%	9.13	69%	2.67
Two Years	25%	1.32	73%	7.26	66%	2.75
Three Years	24%	1.36	59%	7.18	56%	2.45

Note: All t-statistics indicate that the market-adjusted underpricing are significant at least at 0.05 level.

(ii) Performance of New Issues on the Main and Second Board

The Second Board was introduced in 1980s to cater for small and less established firms to source equity capital from the market. On the priori, it is expected that these firms are subjected to greater uncertainty and therefore could be subjected to greater underpricing compared to new issues on the main board of the exchange. The findings in Table 7 show that there are positive and significant initial period underpricing of new issues on both the main and second board respectively. The main board underpricing seems to be relatively higher compared to second board but not statistically significant, implying no difference between main and second board underpricing of new issues. These findings do not support the fourth hypothesis, which postulates that the underpricing of new issues on the second board is greater compared to the main board.

Table 7

A Comparative Performance of Main Board and Second Board New Issues (1986-1996)

	Main Board IPOs		Second Board IPOs			
	Average MAU	t-Stat.	Average MAU	t-Stat.	Difference MAU	t-Stat.
First Day	74%	5.82	54%	8.93	20%	1.40
First Month	69%	3.25	51%	2.74	18%	1.21
Sixth Month	65%	3.11	42%	2.40	23%	1.59

CONCLUSION

This paper provides a new explanation for the underpricing of new issues in the Malaysian share market based on two unique characteristics. First, new issues offer prices are fixed by regulators at the time of the approval of application to list on the stock exchange. This is possible since there are no market-based mechanisms to estimate the potential demand for the new issue and an objective offer price, such as the "red-herring" practices in developed share markets. Second, the New Economic Policy implemented in 1976 mandatorily requires 30 percent of all new issues to be allocated to the indigenous population and the institutions owned by them, in view to correct the imbalance of distribution of capital wealth in the economy. The findings on the performance of new issues before and after the policy implementation do support the regulatory intervention hypothesis.The results show significant high performance in the short-run compared to long run, in support of the fad hypothesis.

In contrary to expectations the findings do not support the notion that second board IPOs are subjected to greater uncertainty and therefore generates higher underpricing than the main board IPOs. On average, the second board firms are less volatile and have lower risk per unit of returns compared to firms on the main board. This could be due to greater scrutiny of second board new issues by the relevant agencies in view of the less stringent listing requirements and absence of much information on these firms until their perceived business potential and riskiness.

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