



Monetary Authority of Singapore

Case Study  
on  
Pan-Electric Crisis

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## EXECUTIVE SUMMARY

This paper examines and evaluates MAS' three main policies during the Pan-Electric Industries Limited (Pan-EI) crisis – closure of the Stock Exchange of Singapore (SES), setting up of the lifeboat fund, and MAS' communication strategy. This exercise is carried out in the context of the regulatory regime at the time of the crisis, using a crisis management framework that focuses on two criteria – effectiveness and cost. At the end of the paper, the reader should have a better idea of the facts surrounding the Pan-EI crisis and the lessons that could be learnt from such an experience as they apply to future crisis prevention and crisis management.

2 Before the Pan-EI crisis, the stockbroking community, along with the companies listed on the SES, was essentially unregulated. While some might point to the membership and listing requirements set out by the SES as examples of regulation, the fact is that the SES had no enforcement powers to make sure either stockbroking firms or listed companies conformed to its rules. There was no continuous off-site supervision and no prudential limits were set for stockbroking firms. Under such circumstances, great reliance was naturally placed on voluntary disclosure by the parties involved.

3 In stark contrast to this lenient atmosphere, the regulatory regime immediately after the Pan-EI crisis swung in the opposite direction. Forward trading was completely banned (trading could only take place on an immediate delivery basis), a not unexpected action given that it was such contracts which had caused the Pan-EI failure to spread throughout the entire stockbroking industry in the first place. Various other prudential requirements were also set up, including capital requirements, gearing limits, exposure limits, margin requirements and maintenance of a reserve fund.

4 Slightly less than a year after the Pan-EI crisis first erupted, legislation finally went into effect that provided a long-term framework for regulation of the stockbroking industry. In fact, the Securities Industry Act (SIA) had been in the pipeline for some time, but had been blocked by the industry prior to 1986; it was the Pan-EI crisis which served as catalyst for the passage of this bill.

5 The Pan-EI crisis can be broken down into two parts. First, there was a systemic threat to the survival of the whole stockbroking industry – as the forward contracts the stockbroking firms were involved in came due without buyers, they were forced to settle these purchases, which in some cases amounted to the entire capitalisation of the company many times over. Second, there was a widespread loss of public confidence that followed the collapse of Pan-EI and the financial troubles of many of the stockbroking firms; this evinced itself in plummeting prices on the SES.

6 It is important to realise the dual nature of the crisis, and the fact that, while related, they are also distinct. The policies undertaken by MAS could not always be aimed at resolving both aspects of the crisis simultaneously. While this would have been the ideal situation, in some cases, it was necessary to tackle one of the aspects first as a matter of priority, leaving the other alone for the time being. Moreover, the two facets of the problem appeared to have different orders of priorities from different players' points of view. For instance, while some thought the SES was closed to allay consumer panic regarding the plunging stock prices, MAS had another aim in mind – to prevent further losses for the stockbroking firms and thereby preserve the industry as a whole.

7 This paper employs a framework which uses two criteria to evaluate the crisis management policies undertaken. The first, effectiveness, refers to how well a policy meets the overall aims of crisis management. Cost, the second criterion, is also an important consideration, and should be minimised where feasible.

8 Many aspects of the Pan-EI crisis warrant study. This paper identifies and discusses three main issues. The closure of the SES is perhaps the most oft-cited aspect of the Pan-EI crisis. Closely related to this was the setting up of a lifeboat fund by the Big Four local banks to provide emergency liquidity for heavily-leveraged stockbroking firms.

9 Closure of the SES was clearly a short-term strategy in which containment of the crisis was a foremost aim. This strategy addressed both aspects of the crisis – plunge in public confidence and systemic instability. In light of the fact that news of Pan-EI's financial troubles depressed prices in the entire stock market, closure could be seen as a way to arrest this decline. In terms of effectiveness, it is hard to say whether this was a wise or a foolish

thing to do – prices fell when the market reopened three days later, but there is no way of determining whether they would have fallen more or less had the SES not been closed in the first place.

10        However, from a systemic point of view, the market closure prevented further defaults on futures contracts which would have plunged more stockbroking firms into insolvency. It also gave policymakers time to come up with a solution to the untenably high leverage some stockbroking firms were exposed to – the lifeboat fund. Therefore, it could be argued that the closure of the SES was relatively more successful in dealing with the systemic instability engendered by the Pan-EI crisis than it was in combating the plunge in public confidence that accompanied the crisis.

11        At the same time, stock market closure is a drastic move under any circumstances, and Singapore had to pay the price in terms of economic, reputational and social costs. Without a market in which to effect share trades, great economic inefficiencies were brought about when buyers and sellers could not meet and mutually-satisfactory prices could not be agreed upon. A closely-linked consequence was the reputational damage Singapore suffered in terms of her credibility as an international stock exchange. The sudden and unprecedented closure of the SES inflicted economic costs on foreign and local investors alike, but the former were much more willing and able to utilize other stock exchanges. The closure was a substantial blow to investor confidence in the liquidity and reliability of Singapore as a trading centre. It also entailed social costs insofar as individuals who did not hold any Pan-EI stock (or stock in any of her related companies) were also prevented from trading.

12        While both the stock exchange closure and the lifeboat fund were crisis-specific actions undertaken in response to the effects of Pan-EI's collapse, the lifeboat fund was more positive in the sense that it actually required something (a fund) to be put in place, instead of simply doing away with what already existed (trading on the SES). For this reason, the lifeboat fund had to come later in the crisis as it took time to plan, whereas market closure could be done quickly and was almost exclusively for the purposes of crisis containment. The fund consisted of a S\$180m line of credit underwritten by the Big Four local banks, and was accompanied by a three-month moratorium on the recall of loans to stockbrokers.

13 The lifeboat fund was designed to prevent the wholesale and systemic collapse of the stockbroking industry. The monies from this fund were to go toward bailing out stockbroking firms in temporary financial difficulties arising from excessive margin calls and unusually low share prices. However, the lifeboat fund was not meant to pay for stockbroking firms suffering from more permanent credit problems due to over-exposure to forward contracts and other bad trading practices. There was a 'no zero-failure' policy in place, meaning those stockbroking firms whose risk management was markedly poor were allowed to go under.

14 The presence of the lifeboat fund could also be seen as a strategy to enhance public confidence; knowing there was governmental and financial backing for the stockbroking industry may have helped convince the public that the Pan-EI crisis and stock market closure were not as catastrophic as some might believe.

15 The survival of the stockbroking industry till the present day is unmistakable indication that the lifeboat fund was effective in achieving its aim. However, the fund was criticised on two fronts. First, it came with very stringent conditions for use. For instance, firms intending to draw on the fund had to prove that they were economically viable in the long-term (debts of less than S\$10m). Few firms actually qualified for use of the fund in the end, which begs the question of how much danger the industry was in in the first place, given that five firms were allowed to fail. Second, all stockbroking firms were required to contribute 0.25% of their earnings toward a fund for repayment of drawdowns from the lifeboat. The levy applied to all firms regardless of their exposure to Pan-EI and to forward contracts in general. This raised complaints of inequity, as more prudent stockbroking firms felt they were being financially penalised for the recklessness of their less well-managed counterparts.

16 In addition, the 0.25% levy was an economic cost, at least for stockbroking firms. A more substantial cost, however, was the loss of goodwill between the industry and the lifeboat fund administrators due to what were perceived by the former as unreasonably stringent conditions for drawing on the fund. On the other hand, such strict provisions could be understood as a necessary protection by the Big Four local banks of the money they had sunk in the fund.

17 An indispensable complement to the SES closure and lifeboat fund was information management. The Pan-EI crisis demonstrated the importance of this aspect of crisis management, which had not been given due emphasis before that point. In this case, MAS' communication strategy with the various local and foreign stakeholders in the financial sector suffered from a lack of precedent and was sometimes even criticised as a lack of strategy. Because there was no foreknowledge of how to disseminate information during a crisis, and no culture of transparency at the time, MAS decided to err on the side of caution and only communicate its crisis management strategies to the public when such were firmed up. The concern was that MAS' credibility would be affected if it was too hasty in announcing initiatives and subsequently had to retract its statements.

18 While good communications may not have materially affected the systemic aspects of the Pan-EI crisis, they certainly had a great impact on public confidence. MAS later released statistics, including a precise list of stockbroking firms that could potentially fail in a worse-case scenario, which did much toward putting things in perspective for the public and the media.

19 Overall, the communication strategy adopted during the Pan-EI crisis incurred low economic loss but involved higher social and reputational costs. The foreign and domestic media fanned the flames of public speculation in the silence during which MAS was working out its crisis management policies. This may have adversely affected Singapore's credibility as a financial centre, and certainly contributed to the crisis of public confidence affecting the stock market. The release of the list of stockbroking firms facing potential collapse also aggravated already-strained relations between MAS and the stockbroking industry.

20 Finally, with the benefit of hindsight, the corporate governance environment surrounding Pan-EI is analysed. This serves to give an overview of the roles various stakeholders – banks, shareholders, auditors, the regulator, and Pan-EI's own management – played in the crisis. It is important to examine this question as these parties are significant and permanent players in the financial sector. A better understanding of how they contributed to the Pan-EI crisis, and hence how they could contribute to preventing other crises in the future, is an essential lesson to take away from the Pan-EI saga.

21 The corporate governance environment at any point in time very much mirrors the regulatory framework, as corporate governance is an important determinant of how well a regulated entity is aligned with the goals of the supervisor. Because regulations preceding the Pan-EI crisis were so slack, it is little surprise that corporate governance was not viewed as a priority by any of the parties involved. Shareholders did not demand disclosure by companies they invested in, company management did not exercise proper internal control in carrying out its duties, and the regulator did not have enforcement powers to ensure that corporate governance guidelines were being followed.

22 In sum, Pan-EI was a dramatic – though fortunately reversible – lesson in the importance of vigilant regulation and good corporate governance. Both supervision and internal controls are critical crisis prevention tools. Each should contain some kind of early warning system to alert relevant parties to the possibility of a crisis brewing. On the other hand, once a crisis has erupted, crisis management policies must always consider the role, scope and timing of government intervention – too much intervention might create conditions for moral hazard in future, while too little would draw harsh criticism from those the government was set up to protect in the first place. As well, public perception of the crisis must be dealt with via an effective communication strategy.

### ***Methodology***

23 Research on the Pan-EI case study is based on news articles, press releases, interviews, and MAS internal papers and minutes of meetings. The complete list of sources can be found in the Reference section.

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# 1 INTRODUCTION

## 1.1 BACKGROUND

1.1.1 The Pan-Electric Industries Limited (“Pan-EI”) crisis is significant, if nothing else, as the reason the Stock Exchange of Singapore (SES) was closed for the first and only time in its history. The collapse of Pan-EI following its huge debts and inability to make good on forward contracts precipitated a systemic crisis that threatened the entire then-nascent stockbroking industry.

1.1.2 What makes the Pan-EI crisis memorable to most people is the financial and political drama it involved – minority shareholders, with whom Pan-EI had been a hot favourite for its many price fluctuations, saw their savings wiped out, while Tan Koon Swan’s (TKS) involvement as a leader on the Malaysian political scene brought about significant cross-straits tension when he was arrested and convicted for fraudulent dealings involving Pan-EI<sup>1</sup>.

1.1.3 Most analysts agree that the system of forward contracts, in which shares are re-sold before their purchase has been settled, was the crux of the Pan-EI crisis. With forward trading, a whole chain of parties is linked via promises of sale and purchase to the same lot of stock, the line only ending with a purchaser which either wants to keep the stock, or that cannot find someone else to sell it to. If this last purchaser is unable to meet its obligations to pay for the stock when they fall due, a domino effect is created and defaults could occur down the chain.

1.1.4 This was what happened in the case of Pan-EI – given the massive amount of forward contracts it had entered into, when Pan-EI was unable to find a seller for these stocks, its liquidity position, already unstable, was plunged into insolvency. This in turn affected the numerous companies who had contracted to sell shares to Pan-EI, and who now had no buyer for these shares. In addition, stockbroking firms, which had acted as financiers in putting up the margins for forward contracts while the latter were in the

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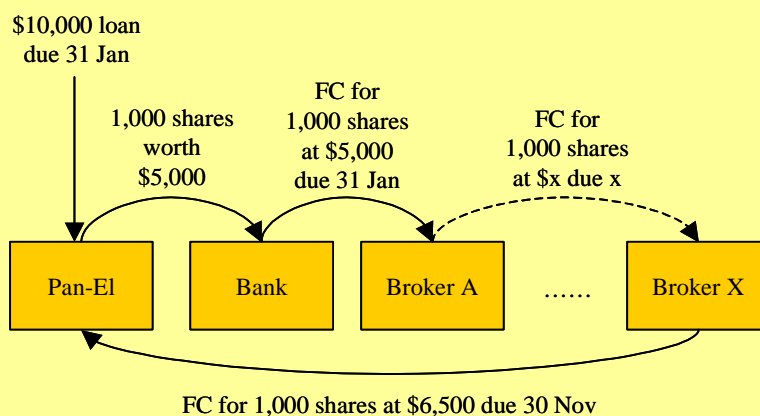
<sup>1</sup> *The Star*, “Koon Swan jailed,” 27 Aug. 1986, p. 1. TKS pleaded guilty to abetting former Pan-EI director Tan Kok Liang in committing criminal breach of trust by dishonestly disposing of S\$144,582 belonging to Pan-EI. On 26 August 1986, TKS was sentenced to two years’ jail and fined S\$500,000 by the High Court.

process of being re-sold, found that their financial commitments far outweighed their net worth when the pool of buyers dried up.

### ***Role of Forward Contracts in the Pan-EI Crisis***

A forward contract is a stock acquisition contract established between two parties for delivery at a predetermined time in the future, at a price agreed upon in the present. It is used for hedging, enabling share owners to reduce price risk by selling their shares forward. This, however, induces share roll-over amongst multiple parties, including investors, brokers and corporations, as in the Pan-EI situation. The illustration below shows how forward contracts resulted in over-trading of Pan-EI shares and escalated market risk for all parties involved.

In the example, Pan-EI pledges 1,000 shares, worth \$5,000 in total, to a bank as collateral for a \$10,000 loan due on 31 January. For double security, the bank enters into a forward contract with Broker A, selling all the shares to A at their cost price. A enters into this trade on a proprietary basis. The contract is slated to mature on the same date as the loan, so in case Pan-EI defaults on repayment, the bank can press A for settlement. A, in turn, enters into a forward contract with Broker B, to sell the Pan-EI shares at a higher forward price, thereby covering itself from credit risk. B does the same with C, and the shares thus roll over to the end of the chain, where Pan-EI performs a repurchase of its shares through a forward contract with Broker X, maturing on 30 November.



When, due to its insolvency, Pan-EI is unable to make payment to Broker X, the latter, failing to receive settlement, then has to default on payment to the broker it had purchased a forward contract from. In this way, the effects of counterparty risk ascend the chain. This was how the intertwining of forward contracts effectively turned Pan-EI's problems into an industry-wide crisis.

1.1.5 The first sign of trouble from Pan-EI was its default on a S\$7.5m loan instalment. Subsequently, when it announced a rights issue for S\$80m meant to generate more liquidity, the underwriters took a closer look at Pan-EI's financials and discovered that the company was, in fact, S\$453m in debt to 35 banks. The rights issue was then cancelled and a rescue plan to improve Pan-EI's position proposed. When this, too, fell through, Pan-EI was officially insolvent and was consequently placed in receivership. This was the trigger that started the domino effect of defaults on forward contracts.

### ***Crisis Timeline***

18 November 1985

- ❖ Pan-EI defaults on S\$7.5m installment for S\$75m syndicated loan led by Standard Chartered Bank

19 November 1985

- ❖ Pan-E shares suspended from trading on SES at company's own request. Reason given is need to revise rights issue and restructure financing
- ❖ Two other TKS-related companies, Sigma and Growth Industrial Holdings, also request and are granted suspension

21 November 1985

- ❖ Pan-EI announces finalised plans for rights issue to raise S\$80-95m. This causes underwriters to look more closely at its fiscal fundamentals. It is discovered that Pan-EI has borrowings of S\$453m from 35 banks, of which S\$283 is unsecured

23-24 November 1985

- ❖ Loan package for Pan-EI unveiled, gains banks' backing
  - S\$200m to be raised through equity and rights issues
  - S\$40m as interest-free loan from TKS

30 November 1985

- ❖ Rescue plan falls through
  - TKS refuses to pump in S\$40m unless repayment priority is raised; creditors refuse
  - "Legal impediment" arises – money from TKS comes from Sigma, which owns more than 20% of Pan-EI and is therefore not allowed to lend it money under the Companies Act
- ❖ Pan-EI goes into receivership

2-4 December 1985

- ❖ All trading on SES suspended (KLSE follows)

3 December 1985

- ❖ Supervisory Committee set up, supersedes SES management
- ❖ Lifeboat fund unveiled

5 December 1985

- ❖ Trading resumes on SES on immediate delivery basis only

6 January 1986

- ❖ Immediate delivery lifted; ready basis trading allowed

10 January 1986

- ❖ First reading of SIA in Parliament

21 January 1986

- ❖ Big Four local banks approved as SES clearing members

10 March 1986

- ❖ J Ballas & Co is first stockbroking firm to draw on lifeboat fund, to the tune of S\$8.6m

31 March 1986

- ❖ SIA passed

18 August 1986

- ❖ SIA goes into effect

9 October 1986

- ❖ Court orders Pan-EI wound up

## 2 REGULATORY FRAMEWORK

### 2.1 INTRODUCTION

2.1.1 Before examining the crisis proper, it is useful first to look at the backdrop against which the entire crisis unfolded. The prevailing regulatory regime not only dictates the risks and options available to a company, it also determines what the regulator can do to deal with the crisis. This section describes both the weak controls over stockbroking firms and listed companies in the 1980s, which explains how Pan-EI could have gotten into the situation it did, and the subsequent tightening of these rules post-Pan-EI.

### 2.2 BEFORE THE CRISIS

#### 2.2.1 Self-Regulation

2.2.1.1 Since the 1970s, after SES and the Kuala Lumpur Stock Exchange (KLSE) split, SES had adopted a self-regulated approach where members and intermediaries were regulated by an executive committee. This approach was based on that used by the New York Stock Exchange (NYSE)<sup>2</sup>. However, as Pan-EI's failure has shown, self-regulation of the SES was not sufficient as the Exchange did not have the enforcement powers needed to carry out proper supervision of its members.

#### ***Is Self-regulation Necessarily Ineffective?***

Self-regulation can take various forms. There could be –

- (i) no regulations, with the onus on the market players to practice sufficient disclosure;
- (ii) some regulations, but with the onus on the stock exchange members and intermediaries/stockbroking firms to adhere to these regulations; or
- (iii) self-regulation by a committee that comprises representatives of the exchange's own members, or independent parties appointed by members.

<sup>2</sup> Lim Hua Min, interview by authors, 12 Mar. 2004. Mr Lim, Executive Chairman of Phillip Securities Pte Ltd, was a member of the Supervisory Committee (see footnote 10)

In the case of Pan-EI, self-regulation by SES clearly did not work, as the market was essentially profit-driven, with little or no consideration given to the long-term risk management. The SES also did not have any supervisory or enforcement powers to back up its regime of self-regulation. Having said that, there are other examples in the world whereby self-regulation has worked well e.g. the NYSE.

## 2.2.2 Lack of Prudential Regulations

2.2.2.1 Given the focus on self-regulation, there were no specific prudential regulations such as minimum capital requirements, gearing limits, limits on exposures and investments, margin requirements and reserve fund requirements imposed by SES on its members. Apart from the surprise audits it conducted annually, there was no off-site surveillance and monitoring<sup>2</sup>. The SES Committee was also not obliged to submit periodic returns to MAS<sup>3</sup>.

2.2.2.2 Having prudential rules and regulations could have placed the SES in a better position to minimise the systemic impact brought about by the collapse of a company such as Pan-EI, since individual firms would have had an incentive to put in place measures to address systemic risk. The presence of regulations and surveillance may also have allowed the formulation of contingency plans beforehand, which could have prevented the closure of the SES.

2.2.2.3 The absence of pertinent regulations and surveillance meant that the SES (or any regulator) could not keep track of the type and level of risks stockbroking companies were exposed to, or whether these companies had any mitigating control mechanisms in place. For instance, without gearing limits, stockbroking companies became overly dependent on bank loans to finance the large number of forward contracts into which they had entered on a proprietary basis. As at December 1985, the total volume of forward share contracts being traded was estimated at between S\$1-2b, with S\$600m outstanding as of 29 November 1985<sup>4</sup>. At the same time, total bank loans to the stockbroking industry stood at S\$1.06b, which was more than five times

<sup>3</sup> Information Division, Ministry of Communications & Information, *Question for Oral Answer in Parliament on 10 January 1986*, Singapore: Jan. 1986 (Release No.: 11/Jan 08-0/86/01/10).

<sup>4</sup> Conrad Raj, "Rescue plans for stockbrokers," *The Straits Times*, 3 Dec. 1985, p.1.  
Chan Oi Chee, "Forward share contracts and how they work," *Business Times*, 6 Dec. 1985, p. 16.

the industry's shareholders' funds of S\$200m<sup>5</sup>. This showed the industry's reliance on excessive borrowings to finance their business; a high level of credit risk was introduced into the system from SES-member firms having to service large loan repayments.

2.2.2.4 Pan-EI and its subsidiaries were committed to about S\$160m of forward contracts, and had bank borrowings of about S\$453m from 35 banks and financial institutions<sup>6</sup>. This represented a significant portion of the industry's exposure to forward share purchases and bank borrowings.

### 2.2.3 Trading on Settlement Basis

2.2.3.1 Prior to Pan-EI, trading was allowed on both immediate and settlement bases. Settlement, or delayed trading, allowed investors to settle their accounts within a month. This represented added risks for investors, as volatility increases with time lag, compared to trading on an immediate basis where all share deals have to be settled within 24 hours. Despite this, settlement trading was popular as investors benefited from needing less liquidity to carry out the same number of trades, since more trades could be netted off prior to settlement.

### 2.2.4 Supervision of the Securities Industry

2.2.4.1 Prior to Pan-EI's collapse, MAS had taken over the supervision of the securities industry from the Ministry of Finance. However, MAS did not have the necessary legal powers to supervise the industry. MAS had not been happy with this arrangement for some time before the Pan-EI incident as self-regulation was deemed not to be viable, given the increased size and complexity of the stock market<sup>7</sup>. A draft amendment to the Securities Industries Act (SIA) had, in fact, been completed and circulated to SES members in July 1985, but there was strong opposition from the SES that the new regulations were unduly restrictive. As a result, MAS decided to delay implementation of the SIA amendments to allow more time to persuade and

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<sup>5</sup> Monetary Authority of Singapore (MAS), *Supervision of SES-members and SES-listed companies*.

<sup>6</sup> Koh Beng Seng, *Report on the Pan-Electric Industries Ltd ("Pan-EI") Affair*, 9 Jan. 1986.

<sup>7</sup> *Business Times*, "Dr Hu puts Pan-EI crisis in proper perspective," 11 Jan. 1986, p.12.

consult with the industry<sup>8</sup>. These plans were subsequently overtaken by events.

## **2.3 AFTER THE PAN-ELECTRIC CRISIS**

### **2.3.1 After Markets Reopened on 5 December 1985**

2.3.1.1 When trading resumed on 5 December 1985, all share deals had to be conducted on an immediate delivery basis; that is, payment had to be made within 24 hours of a trade. Trading on a settlement basis (payment within a month) was suspended indefinitely, while forward trading (payment more than a month later) was completely banned. This settlement period was subsequently changed to T+5 on 6 January 1986, after some overseas clients complained about difficulties in fulfilling the 24-hour delivery rule<sup>9</sup>. Presently, the settlement cycle is on a T+3 days basis, where all share deals have to be settled three days after the transaction has been entered into. As a result of the shorter settlement timeframe, there is less uncertainty.

2.3.1.2 A Supervisory Committee (SC) had been set up during the period of market closure, tasked with formulating strategies to deal with containment of the immediate crisis as well as more medium- to long-term risk management policies<sup>10</sup>. All stockbroking firms had to submit quarterly returns to the SC and the firms were not allowed to pay out any dividends without its approval. There was also increased capitalization through an injection of S\$70m of funds into the industry<sup>11</sup>.

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<sup>8</sup> Mano Sabnani, Soh Tiang Keng & Alvin Tay, "Blueprint for stock exchange," *Business Times*, 24 Dec. 1985, p. 6.

<sup>9</sup> *Business Times*, "SES to lift immediate delivery ruling," 3 Jan. 1986, p. 1.

<sup>10</sup> The SC comprised Mr J.Y.M. Pillay, Managing Director, MAS (Mr Koh Beng Seng, Director, Banking and Financial Institutions Department as alternate), one representative from each of the Big Four local banks (Mr Tjio Kay Loen of OCBC, Mr Peter Seah of OUB, Mr Tan Soo Nan of DBS and Mr Ernest Wong of UOB) and three representatives from the SES (Mr Ong Tjin An, SES Chairman, Mr George Teo of J M Sassoon and Mr Lim Hua Min of Phillip Securities).

<sup>11</sup> Mano Sabnani, "Supervisory Committee to guarantee brokers' obligations," *Business Times*, 5 Dec. 1985, p. 1.

## 2.3.2 SIA and SES Regulations

2.3.2.1 The SIA and SES' Rules and Byelaws were revamped to ensure tighter, more comprehensive regulation of the stockbroking industry. The supervision of securities intermediaries was also brought under MAS' ambit.

2.3.2.2 As part of the reforms following the crisis, SES' Byelaws were amended in February 1986 to facilitate the corporatisation of members. These amendments also allowed the Big Four local banks to enter the stockbroking industry, thereby boosting the low capital base of stockbroking firms. Amendments to the SES regulations also permitted foreign stockbroking firms to take majority stakes of up to 100% in SES member companies<sup>12</sup>. Foreign ownership helped SES members enlarge their capital bases to a level commensurate with their business volume.

2.3.2.3 Most of the prudential requirements imposed under the SIA and Regulations, as well as through SES Rules and Byelaws after the Pan-El collapse, remained effective until 2002, when the risk-based capital framework was introduced. Some of these requirements are as follows:

### (i) Capital Requirements

Member companies were required to maintain minimum adjusted net capital (ANC)<sup>13</sup> of S\$10m and minimum paid-up capital of S\$30m.

### (ii) Gearing Limits

Each member company's aggregate indebtedness (AI)<sup>14</sup> was limited to five times its ANC.

### (iii) Limits on exposures and investments

Member companies were required to comply with the following limits:

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<sup>12</sup> Prior to Pan-El, foreign ownership in SES member companies was capped at 49%.

<sup>13</sup> This refers to a company's shareholders funds adjusted for certain non-current assets, unsecured or doubtful amounts, deficits in client accounts, related party transactions and marked to market losses. For the full definition, refer to Securities and Futures (Financial and Margin Requirements for Holders of Capital Markets Services Licences) Regulations 2002.

<sup>14</sup> This refers to a company's total liabilities less certain specified liabilities. For the full definition, refer to Securities and Futures (Financial and Margin Requirements for Holders of Capital Markets Services Licences) Regulations 2002.

<b>Prudential Limit</b>	<b>Limit Imposed</b>
Single client exposure	20% of ANC
Single security exposure	10%-300% of ANC
Investment Limit	150%/300% of ANC

**(iv) Margin Requirement**

To ensure that member companies which provided financing to their clients obtained sufficient collateral, it was mandatory for the former to maintain an initial margin ratio of 150%. This ratio should not fall below 140%.

**(v) Reserve Fund**

Member companies were required to pay a certain portion of their net profits annually (ranging from 10% and 50%) into a statutory reserve fund. The reserve fund could not be used to pay out dividends.

2.3.2.4 SES also set up an inspectorate department to conduct on-site inspections of its member companies at least once a year. Member companies were additionally required to submit monthly returns to the SES.

## **2.4 BALANCED REGULATIONS**

2.4.1 After the Pan-El collapse, the stock exchange evolved from a self-regulated regime into a more tightly-controlled entity, which was often seen as being over-regulated. Recently, however, there has been a move toward more disclosure-based regulation, away from the prescriptive rules previously employed. This brings up the question of whether the imposition of stringent regulations in the wake of the Pan-El debacle could have been the result of a knee-jerk reaction given the severe time constraints and other pressures facing the decision-makers then.

2.4.2 Experience would determine the type and extent of regulations to be used in different scenarios. For example, during Wall Street's largest-ever stock market decline on "Black Monday" in October 1987, when the Dow Jones Industrial Average plunged 508.32 points or 22.6%, the SES did not

have to implement another market closure although there was panic selling and declines in various markets worldwide, including Singapore. The strict prudential regulations in place following Pan-EI ensured that there were sufficient safeguards and adequate capital in the stock exchange to avoid another market closure.

2.4.3 Strict rules and regulations are arguably the best option during times of crisis, as there is a need for regulators to be in full control of the situation under such circumstances. However, as the operating business environment changes over the years, regulations should be reviewed from time to time to assess their practicality and relevance. Indeed, following the Pan-EI crisis, the SIA has evolved into the present Securities & Futures Act (SFA) after a series of amendments. For example, under the Securities Industries Regulations 1986, a member company's dealer's license would lapse if its aggregate indebtedness exceeded 1,200% of its ANC, or if ANC fell below S\$250,000 for four consecutive weeks. Subsequently, under the revised edition of 1985, the limits were amended to 800% and S\$8m respectively.

2.4.4. This illustrates the need for regulations to be reviewed and amended to remain relevant to the needs of an evolving business environment and new business models. A healthy market must have room to grow and develop, with developmental objectives balanced against prudential concerns<sup>15</sup>.

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<sup>15</sup> Peter Seah, interview with authors, 18 Mar. 2004.

## 3 CRISIS MANAGEMENT FRAMEWORK

### 3.1 INTRODUCTION

3.1.1 This section sets out a crisis management framework to be used in the following sections. The framework serves as a backdrop to establish a common understanding of the different aspects involved in crisis management.

### 3.2 CRISIS MANAGEMENT FRAMEWORK

3.2.1 In analysing any crisis management policy, it is instructive to measure the policy effect against an overarching objective rather than the stated aims, as the latter would have been crafted to fit the mood of the times and the specific circumstances. A possible crisis management objective would be as follows – *“To rectify failures that threaten the stability of the financial system and minimise the cost of disruptions for the economy and society”*<sup>16</sup>.

3.2.2 This objective would include a primary task of resolving the failures that occur in an expedient and effective manner so as to avoid the threat of financial instability. It would also involve a secondary task of minimising the economic, social, and other costs attendant on the crisis management policies being pursued, but only insofar as the primary task is accomplished in a satisfactory manner.

3.2.3 The framework presupposes a longer timeframe for a crisis than might intuitively be supposed. There is an implied need to go beyond merely containing or ring-fencing the problem at hand. The objective requires that the underlying faults in the economy that created the crisis situation be dealt with and rectified adequately, such that the economy can revert to a reasonable steady-state mode of operations in the medium-term.

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<sup>16</sup> Specialist Risk Supervision Department, MAS, *Crisis Management Framework – Terms of Reference*, Singapore: Jan. 2004.

3.2.4 However, the aim of crisis management is not to provide long-term solutions to these economic or financial failures. Once the crisis is averted and the crisis management policies removed, it is left to the routine functions of the public administration to fully correct these failures.

3.2.5 Given this objective, it is logical to analyse the following:

**(i) Nature of crisis**

How did the failure of Pan-EI threaten the stability of the securities industry?

**(ii) Effectiveness of policy**

Was the policy effective in addressing the threats identified in (i) and in maintaining the stability of the securities industry?

**(iii) Cost of policy**

Was the cost of disruptions to the economy and society caused by the crisis management policies minimised?

3.2.6 Apart from the overarching objective, a crisis management framework should define other sub-goals during the different phases of a crisis. For the purpose of analysing the Pan-EI crisis, a simple three-phase model is used to describe and understand the various sub-goals of each of the stages of a crisis.

**(i) Containment**

To contain the crisis and restore some degree of confidence.

**(ii) Restructure**

To take stock and put in place a structure that can handle the restructuring necessary, and to start taking medium- to long-term measures.

**(iii) Exit**

To deal with issues and processes relating to the withdrawal of those emergency measures that were deemed to be only temporary.

3.2.7 It should be noted that these are generic phases rather than discrete, sequential events in a crisis. For different aspects of a crisis, the different phases could overlap (for instance, some issues could be in the containment phase for an extended period, while others are already being restructured). In addition, the phases could occur on different time-scales for different crisis management policies.

3.2.8 Using this framework, the following sections analyse the two major public policy measures taken to contain the crisis and implement short- to medium-term restructuring measures – closure of the SES, and the establishment of a lifeboat fund. Issues pertaining to the exit phases of these policies will also be briefly discussed.

## 4 CRISIS IDENTIFICATION AND EVALUATION

### 4.1 INTRODUCTION

4.1.1 This section provides the background necessary to assess the crisis management policies used during the Pan-El crisis by briefly describing the pre-crisis situation, the issues associated with identifying the crisis in a timely manner, and an evaluation of the nature of the crisis.

#### ***Crisis identification vs. Crisis evaluation***

Crisis identification refers to the process of correctly recognising the signs of an impending crisis. Identifying a potential crisis early enough could result in avoidance of a crisis situation altogether.

Crisis evaluation refers to the process of arriving at an adequate understanding of the nature of a crisis after the crisis has already begun to unfold. An accurate assessment allows effective management of the underlying failures and the anticipated impact of the crisis.

4.1.2 Before analysing the Pan-El crisis proper, this section discusses whether MAS could have identified the potential crisis situation early enough to prevent the crisis actually occurring. It also provides a retrospective evaluation of the nature of the Pan-El crisis.

### 4.2 CRISIS IDENTIFICATION

4.2.1 A crisis does not manifest overnight. Its occurrence is frequently a result of the culmination of systemic vulnerabilities and triggers, over a period of time.

4.2.2 The practice of trading in forward contracts had become progressively more widespread in the Singapore and Malaysia markets since the introduction of these contracts in 1981. Forward contracts were not defined under the SES' Byelaws, but they were seen as regular trading instruments in a free market. By mid-1985, the majority of SES members

were involved in voluminous forward contract deals<sup>17</sup>. Prominent conglomerates such as Selangor Properties and Pan-EI, in particular, were amongst the frontrunners in amassing forward contracts made through related broking firms<sup>18</sup>.

4.2.3 The forward contracts system effectively turned stockbroking firms into financiers. This resulted in inflated corporate profits, but accompanied by significantly increased contingent liabilities. Forward contracts proved to be a major systemic risk that were ignored, probably due to a combination of unfamiliarity with the nature of these products and ignorance of the scope of the problem.

4.2.4 While the chain of forward contracts was the mechanism through which the company's collapse was able to affect so many others in the industry, it was the company's collapse in the first place which precipitated the critical chain reaction. Pan-EI's debts of S\$453m to 35 banks and financial institutions were another source of systemic risk. However, because Pan-EI was a private organization, and not a regulated financial institution, its borrowing practices and investment policies were not under the regulatory ambit of MAS. There was little MAS could have done to reduce the risks posed by Pan-EI's financial situation.

4.2.5 The fact that MAS did not see the systemic risks outlined above as areas of concern, combined with its lack of experience in dealing with crisis situations of this nature, led to a passive stance being adopted in the build-up to the crisis.

4.2.6 In the early days of the crisis, when Pan-EI's financial difficulties were thought to be confined to the company alone, MAS chose not to get involved in the negotiations held from 18-20 November 1985 between the steering committee of the creditor banks and Pan-EI's directors. The policy stance at that point seemed to be to leave the creditors and distressed company to negotiate among themselves as this was an issue for the market to deal with<sup>19</sup>. To facilitate the negotiations, counters of Pan-EI and related

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<sup>17</sup> Only three brokers were free of forward contract obligations as of November 1985 – Lee & Co, JM Sassoon and Phillip Securities.

<sup>18</sup> Interview with Lim Hua Min.

<sup>19</sup> Koh Beng Seng, *Report on the Pan Electric Industries Ltd Affair*.

companies were suspended from trading on SES and KLSE on 19 November 1985.

4.2.7 Initial negotiations between the creditor banks (championed by Standard Chartered Bank), the Pan-EI directors and TKS concluded in a deadlock, but a subsequent agreement was reached on 23 November 1985 for TKS to take over Pan-EI's S\$160m worth of forward contracts. TKS was also to provide a S\$40m interest-free loan to Pan-EI in two tranches<sup>20</sup>. TKS, however, flouted this agreement following his victorious campaign for presidency of the Malaysian Chinese Association (MCA). He prevented PriceWaterhouse from expending the first tranche by citing a "legal impediment"<sup>21</sup>. He also demanded wholesale priority of claim for his loan. The failure of the rescue plan was the tipping point of the crisis.

4.2.8 It prompted the creditor banks to put Pan-EI under the receivership of Price Waterhouse on 30 November 1985. Immediately after this news was made public, the stock market plunged to a 38-month low due to a snowballing of fears of losses and defaults on forward contracts<sup>22</sup>. From this point on, the policy environment had drastically changed.

### 4.3 NATURE OF CRISIS

4.3.0.1 As the crisis unfolded, MAS had to accurately evaluate the nature of the crisis so as to effectively manage it. It is possible to distinguish two aspects of the Pan-EI crisis, namely the systemic impact affecting stockbroking firms and the crisis of confidence affecting share prices and investors. These two aspects, while interlinked, had very different ramifications on the financial system. Whether the crisis would be well-managed depended on how effectively MAS' crisis management policies addressed both of these aspects.

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<sup>20</sup> *The Sunday Times*, "Bankers tell why the talks collapsed," 1 Dec. 1985, p. 12.

<sup>21</sup> Alan Lee, "The impediment which killed plan to save company," *Business Times*, 2 Dec. 1985, p. 1. Section 163 of the Companies Act prohibits a company from granting a loan to another company if a director of the first company has an interest in more than 20% of the equity of the second company. As TKS was a director of Sigma and had a beneficial interest in 22.3% in the equity of Pan-EI, Sigma was legally prohibited from granting loans to Pan-EI.

<sup>22</sup> Homer Chen, "Pan-EI crisis sparks off selling blaze," *Business Times*, 2 Dec. 1985, p. 15.

### 4.3.1 Systemic Crisis

4.3.1.1 The systemic impact of the crisis resulted from over-trading and lax credit controls in forward contracts within the stockbroking industry. In Richard Hu's Parliamentary speech on 10 January 1986, this was cited as the underlying cause of the Pan-EI crisis<sup>23</sup>. As well, the weak regulatory environment created systemic incentives for investing in forward contracts, with the result that, by 3 December 1985, between S\$1b-2b of the total capital available in the stock market was tied up in forward contracts, with deals on Pan-EI and related shares accounting for S\$250m of this figure<sup>24</sup>.

### 4.3.2 Crisis of Confidence

4.3.2.1 The crisis of confidence created by the failure of Pan-EI, the uncertainty surrounding the viability of the stockbroking industry, and existing bearish sentiment caused the stock market to fall 3% the day Pan-EI was placed under receivership<sup>25</sup>.

4.3.2.2 Under normal circumstances, fluctuating prices reflect market forces, and even plunging prices act as market signals. However, in the case of panic selling, price levels might not accurately reflect underlying market information. The driving forces behind a crisis of confidence leading to stock market crashes are often acute uncertainty, lack of information and irrational herd instinct, all of which are potentially manageable.

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<sup>23</sup> Ministry of Communications & Information, *Question for Oral Answer in Parliament on 10 January 1986*.

<sup>24</sup> Conrad Raj, "Rescue plans for stockbrokers".

<sup>25</sup> Homer Chen, "Pan-EI crisis sparks off selling blaze".

## 5 STOCK EXCHANGE CLOSURE

### 5.1 INTRODUCTION

5.1.1 To effectively resolve the Pan-EI crisis, both the systemic impact and the confidence factor had to be adequately managed. To this end, MAS instituted two policy measures – closure of the SES and establishment of a lifeboat fund.

5.1.2 This section details the policy considerations and highlights several debatable issues associated with the closure of the SES from 2-4 December 1985.

### 5.2 POLICY ACTION AND RATIONALE

5.2.1 In light of a potential crisis of the stock exchange, a decision was taken on 2 December 1985, two days after Pan-EI was placed into receivership, to suspend indefinitely all trading on the SES. Dr Richard Hu, then-Minister of Finance and Chairman of MAS, later clarified that the decision to close the SES had been made purely by the SES Committee<sup>26</sup>. The Committee approached MAS with its resolution during meetings on 30 November and 1 December 1985; MAS then informed the Committee that it had no objections to the closure.

5.2.2 Suspension of all stock trading was and is unprecedented in the history of Singapore's financial sector. The stated policy rationale was:

- (i) To mitigate the panic that would result from a mass selling of shares when Pan-EI's financial troubles became common knowledge. It was hoped that the suspension would stop ordinary investors from selling irrationally due to herd instinct, which would have led to unnecessary price crashes. To quote the Chairman of the SES, Mr Ong Tjin An, "It [The closure] is to

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<sup>26</sup> J.Y.M. Pillay, interview with authors, 10 Mar. 2004. In this interview, Mr Pillay stated that the decision to close the stock exchange was made jointly by the SC and the SES.

cool off the market and for the public to digest the news [of Pan-El's collapse]"<sup>27</sup>;

- (ii) To give the parties concerned time to work out a short-term strategy with which to tackle this crisis; and
- (iii) To give the parties concerned time to work out a suitable long-term plan of action.

## 5.3 POLICY EVALUATION

5.3.0.1 The objective of the SES closure as stated above was to achieve containment of the public confidence crisis. A parallel objective was to buy time to devise restructuring plans for both the short- and the long-terms, which would be implemented following the re-opening of the SES. Lastly, the policy had to be coupled with a sound exit strategy, namely a smooth re-opening of the SES.

### 5.3.1 Effectiveness of Policy

#### *Preventing a stock market crash*

5.3.1.1 The effectiveness of the market closure in reducing the drop in prices when the SES reopened is purely an academic one. Some would argue that the drop in prices could have been more severe, as the panic and uncertainty would have built up during the three-day closure. Some point to the linear interpolation between the closing and opening price levels, and the presence of the grey market, to argue that there would not have been much of a difference in price levels. Others might contend that the firm manner in which the authorities took control of the situation, along with the clarity of their subsequent communication at Parliament and in the media, calmed the panic significantly.

5.3.1.2 Limiting price information often creates more detrimental effects than beneficial ones. While it could be argued that closure of a stock exchange could mitigate short-term panic selling and avert an avoidable stock market crash, such an assertion would depend on the basis for the panic selling. If, for instance, the panic resulted from a lack of information that could

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<sup>27</sup> *Business Times*, "SES suspends all share trading," 2 Dec. 1985, p. 1.

be made available following the stock exchange closure, this might be a reasonable claim. On the other hand, if the panic was based on rational expectations and reflected underlying market information (like when a stock market bubble bursts), a closure would have no effect on prices.

5.3.1.3 There is evidence to suggest that the stated aim of mitigating a stock market crash was not, in fact, an objective that MAS was pursuing. In an interview, Mr J.Y.M Pillay mentioned that preventing systemic failures was the primary objective of MAS' crisis management policies, and that MAS was actually "indifferent to the level of the index"<sup>28</sup>.

### ***Mitigating systemic failures***

5.3.1.4 In effect, the Pan-EI crisis was a convergence of risk events for stockbroking firms – a combination of credit, systemic, and market risk events occurring simultaneously. The credit and systemic risk events triggered by the collapse of Pan-EI resulted in the failure several stockbroking firms, but did not create financial instability. However, an extreme market movement could have potentially caused further failures, threatening the stability of the stock exchange system. It is debatable whether the plunging stock markets would have caused instability to the stock exchange, as the policy action of closing the exchange affected the eventual market prices. In an already-weakened system, rapidly-falling stock prices could adversely affect firms that are facing other problems.

5.3.1.5 Hence, the policy to close the SES could still be seen as a measure to "cool off" the market and prevent an irrational, adverse and avoidable market movement, not for the purposes of investor protection or restoration of public confidence *per se*, but to mitigate the market risk element that might tip some weakened stockbroking firms into insolvency<sup>29</sup>.

### ***Restoring public confidence***

5.3.1.6 Another of the stated aims of closing the SES was to buy time to devise restructuring measures for the stock exchange. Some of these

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<sup>28</sup> J.Y.M. Pillay, interview with authors.

<sup>29</sup> Conrad Raj, "Rescue plans for stockbrokers".

measures had immediate effect, such as the three-month moratorium on debts extended by the creditor banks to stockbroking firms, which gave these firms much-needed time and credit to sort out their affairs and get their finances in order. This was to reduce the liquidity crunch that stockbroking firms would face had banks withdrawn their credit lines *en masse*. Without credit from the banks, the temporary liquidity problems of many otherwise-financially healthy brokers could well have escalated into insolvency. However, this did not remove the potential losses stockbroking firms faced due to their failing counterparts. Effectively, the policy merely deferred the realisation of such losses, and contributed to the medium- and long-term goals of ensuring viability only to the extent that additional capital could be raised. At the same time, the policy stayed insolvency cases in the interim, and contributed to the short-term goal of restoring public confidence.

5.3.1.7 The other restructuring measures, including the setting up of a lifeboat fund (see Section 6), could be viewed as complementary policy measures to restore public and investor confidence. The medium- to long-term policy goal for these measures was to ensure the viability of stockbroking firms and the stock exchange. In fact, many of these restructuring measures could not have been implemented in the short-term, or would not have had any immediate effect on the financial health of stockbroking firms<sup>30</sup>. However, setting up a restructuring plan and communicating these measures to the industry and investors played an important role in maintaining public confidence in the system.

## 5.3.2 Cost of Policy

5.3.2.1 The fundamental purpose of an exchange is both to provide the liquidity to execute trades and a marketplace in which to do so. Closing an exchange does not remove the desire to trade, merely the facility for trading and the requisite liquidity. Buyers and sellers would then move to grey markets if possible, seeking to execute their trades.

5.3.2.2 There are certain costs incurred in depriving investors of their trading facility and liquidity. These could be categorised as economic, social, and reputational.

### ***Economic costs***

5.3.2.3 The unexpected and arbitrary closure of the SES created a disequilibrium state of supply and demand since willing buyers and sellers were unable to meet and trade. A movement of trading into grey markets would not have fully addressed this gap as trading volume and liquidity is generally thinner in the grey markets<sup>31</sup>. As such, the economic cost of the market closure policy was the aggregate welfare loss arising from unexecuted or sub-optimal trades.

### ***Social costs***

5.3.2.4 All investors were prevented from trading when the SES closed, whether they were interested in Pan-EI-related counters or not. This had the immediate result of creating massive unhappiness and calling into doubt the credibility of the SES. Moreover, the public saw the closure as an implicit admission by the authorities that the Pan-EI collapse was a true crisis, adding to the general lack of confidence that already existed in the market.

### ***Reputational costs***

5.3.2.5 The closure of the SES represented a change of rules midstream, as there was no provision in the SES rules for market closure. This sudden rule-change unsettled investors and damaged the SES' reputation. The policy was also strongly criticised in the foreign presses. Section 7 elaborates on the nature of these criticisms, the extent of the damage to MAS' credibility, and the communication strategy MAS adopted to address these criticisms and mitigate the reputational harm done.

### ***Cost minimisation as an objective***

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<sup>30</sup> For instance, the lifeboat fund was implemented only after a delay of three months.

<sup>31</sup> Conrad Raj, "Rescue plans for stockbrokers". For the Pan-EI crisis, the SES had "warned all brokers and remisiers not to trade in the grey market...[as] such trading would go against the purpose of the suspension". However, it was also recognised that it would be difficult to prevent such unofficial activities if the suspension was prolonged.

5.3.2.6 Whether the costs of implementing the stock exchange closure were minimised is a debatable issue. Three days might be deemed too long for an exchange to be closed, but Mr Pillay argued that “Rome wasn’t built in a day and I think getting this done in a day and night is an achievement”<sup>32</sup>. It could also be argued that, had the authorities come out hastily and made statements that were later found to be conflicting or untrue, the damage done to both local and foreign investor confidence might have been even greater.

5.3.2.7 However, it is worth noting that the economic, social, and reputational costs of the market closure policy directly impacted public confidence. Depriving investors of liquidity and information, creating resentment among the public, and inciting foreign criticisms of Singapore’s financial sector could all be seen as detrimental to public confidence in the short- or long-run. The benefits and costs in any crisis are thus closely-related and require careful balancing.

## 5.4 CONCLUSION

5.4.1 As a crisis management policy, closure of a stock exchange is neither a necessary nor a sufficient solution to address systemic issues. Having said that, considerations to bear in mind when using closure of the stock exchange (perhaps in combination with other policies) as a crisis management tool in future could be:

- (i) If there were a potential for mass panic selling due to lack of information;
- (ii) If there were reasonable grounds to believe that additional information would restore confidence and prevent panic selling;
- (iii) If there were no other means to convey such additional information in a timely manner without closing the exchange; and
- (iv) If there were a convergence of risk events, such that an extreme market movement threatened to destabilise the financial system,

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<sup>32</sup> Catherine C. Ong, “MAS chief fields the queries on a debacle,” *The Straits Times*, 4 Dec. 1985, p. 23.

there could be reasonable grounds to close the stock exchange, so as to correct failures that threaten the stability of the financial system and minimise the cost of disruptions for the economy and society.

5.4.2 The current policy stance is that the SGX will not be closed under any circumstances, although the issue is still frequently debated. It would appear that the costs of market closure are too high, unless they are weighed against almost certain losses created by a systemic failure and financial instability. From the Pan-EI case, it could be argued that a convergence of risk events and a public confidence crisis justified isolating and mitigating specific risks through policy intervention in order to prevent a systemic failure.

5.4.3 However, it should be noted that convergence of risk events might not be as remote as might be expected. Further, risk events are often correlated, especially considering that adverse market movements could result from credit, systemic, operational or other risk events. This is especially true as the financial sector becomes more integrated and interconnected.

5.4.4 Another issue to consider is whether a policy stance that considers market closure one of its crisis management tools should be made public. There is a clear moral hazard issue arising from this, that the private sector would underestimate the likelihood or impact of tail-end events due to its belief that the government would intervene should such an event occur. This would become another cost item should stock exchange closure be contemplated as a policy tool during a crisis situation.

## **6 LIFEBOAT FUND**

### **6.1 INTRODUCTION**

6.1.1. This section elaborates on the lifeboat fund set up after the reopening of the SES on 5 December 1985. It also highlights the policy considerations and debatable issues associated with the fund.

### **6.2 POLICY ACTION AND RATIONALE**

6.2.1 One of the reasons given for the closure was to buy time to formulate a short-term restructuring plan to mitigate the crisis. The most significant action undertaken with this goal in mind was the setting up of a lifeboat fund that would help to address short-term liquidity problems and restore public confidence.

6.2.2 MAS and the local banks worked together closely during the period of the SES closure to finalise arrangements for the lifeboat fund. Announced formally on 3 December 1985, the day after market suspension began, this fund incorporated the following characteristics:

- (i) A S\$180m credit line from the Big Four local banks to stockbroking firms. S\$30m of this amount would go toward tempering short-term liquidity problems, while the rest would be disbursed over ten years to cover firms that were actually insolvent; and
- (ii) 0.25% commission on each share deal was to go into a contingency fund to repay future borrowings from the credit line.

6.2.3 It was established that any firm utilising the S\$180m credit line would be subject to stringent conditions:

- (i) Outstanding forward contracts could not exceed S\$600m;
- (ii) Only obligations to other stockbroking firms would be funded;

- (iii) The firm would have to furnish the SC with audited financial statements and make a statutory declaration on the accuracy of these statements;
- (iv) At least 50% of net profits (based on last available audited accounts) had to go toward repayment and any drawdown on the fund; and
- (v) Before drawing on the lifeboat, firms must first have used their own capital funds (while maintaining minimum paid-up capital).

6.2.4 Despite the publicity surrounding the lifeboat fund, its launch was delayed by three months – coinciding with the expiration of the three-month moratorium on debts offered by the banks at MAS' urging – due mainly to unhappiness and lack of clarity over some of the terms of use. The new guidelines governing stockbroking firms' ability to draw on the lifeboat built on previous rules and were released on 28 February 1986:

- (i) Forward contracts dealing in the shares of Pan-El and its related companies would not be honoured;
- (ii) Forward contracts in which the original seller and buyer were closely linked would not be bailed out;
- (iii) Only forward contracts for shares listed on the SES would be honoured; and
- (iv) Stockbroking firms had to prove their viability to have access to the lifeboat, which meant their outstanding debts had to amount to less than S\$10m.

6.2.5 MAS was very clear about its objectives in encouraging and sanctioning the lifeboat fund. In an interview with the *Business Times*, Dr Hu stated MAS' two main short-term priorities with regard to containing the Pan-El crisis<sup>33</sup>. First, the integrity of the SES as a whole had to be restored. This was where the lifeboat fund came in, to guarantee investors that all transactions would be honoured so that trading could continue. MAS also highlighted to the banking community that “the intention was to provide stability to the stock-broking system and not to ensure the survival of individual stock-broking firms”<sup>34</sup>.

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<sup>33</sup> Mano Sabnani, Soh Tiang Keng & Alvin Tay, “Blueprint for stock exchange”.

<sup>34</sup> MAS, “Minutes of Meeting with the Creditor Banks of the Stockbroking Industry on 22 Feb 86 at 10.50 AM at the MAS Boardroom,” rec. Tham Choi Kit, 22 Feb. 1986.

6.2.6 The lifeboat fund helped in large part to fulfil MAS' second priority, to ensure that banks did not withdraw their credit lines from the stock-broking firms *en masse*. Without credit from the banks, the temporary liquidity problems of many otherwise-financially viable brokers could well have escalated into insolvency.

## 6.3 POLICY EVALUATION

6.3.0.1 In the previous section on the closure of the SES, it was established that the collapse of Pan-EI, coupled with the panic in the stock market, threatened to destabilise the stock exchange on a systemic level through the failures of individual brokers. While the closure could have mitigated a collapse of stock prices, there was a further need to maintain the integrity of the stock exchange through longer-term restructuring plans, should excessive insolvency still occur without an actual crash of the stock market. As the lifeboat fund required private contributions from the stockbroking industry, an orderly and transparent exit strategy was also required to minimise any disruptions.

### 6.3.1 Effectiveness of Policy

#### ***'No Zero-Failure' Policy***

6.3.1.1 The underlying policy stance MAS adopted towards insolvent stockbroking firms was that of 'no zero-failure'. This meant that some stockbroking firms were allowed to fail. The key decision here was determining which ones were to be rescued. Clearly, those firms overly-exposed to Pan-EI forward contracts and those primarily transacting with Pan-EI without proper risk controls should bear the credit risks that they had taken and be allowed to fail if they became insolvent. Others which had exercised prudence and were far removed from Pan-EI in their transactions would not be in financial danger, and would have no need for the lifeboat fund anyway.

6.3.1.2 However, there were some stockbroking firms that lay between the two extremes described above. Due to the close dealings stockbroking firms had with each other, the collapse of Pan-EI could potentially trigger a chain effect of failures. Firms that became insolvent due to their Pan-EI-related

positions would be the first-line of failures; these would be allowed to collapse. Those with exposures to these first-line failures had the potential to become second-line failures due to the incremental losses (in addition to losses caused directly by Pan-EI's collapse) that resulted from these exposures.

6.3.1.3 For these knock-on insolvency cases, the rules governing eligibility for the S\$180m credit line – in other words, how MAS implemented the 'no zero-failure' policy – became a source of some contention. There was a need to ensure that the credit line would be used in an optimal way by apportioning the funds to where they were needed most. It was thus important for the rules governing the disbursement of the lifeboat fund to be crafted in a manner that suited the policy intent.

### ***Mitigating systemic impact***

6.3.1.4 MAS' first priority was to prevent a failure of the stockbroking system in its entirety. However, in the containment phase of a crisis, it is almost impossible to determine the extent of the systemic impact. There was, in this case, limited time to obtain and assess all relevant information regarding the financial state of the stockbroking firms. Even if there had been sufficient time during the three-day closure, the uncertainty of the crisis period would have cast doubt on the accuracy of the data and analysis. Thus, it would seem that MAS adopted the prudent measure of instituting a lifeboat fund to pre-empt the possibility that the collective impact to individual stockbroking firms might become a threat to the entire market.

6.3.1.5 In the wake of the SES closure, MAS analysed more closely the extent of potential failures among the stockbroking firms. **Annex A** shows the potential losses of individual broking firms if, first, Pan-EI defaulted on its forward contracts and, second, if Pan-EI, TKS and his associates and Malaysian brokers all defaulted on their forward contracts<sup>35</sup>. From this, MAS determined that in the worst-case scenario, there would be four first-line failing stockbroking firms, and four more second-line failing firms if the losses of the first line failing firms were not mitigated by the lifeboat fund<sup>36</sup>.

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<sup>35</sup> Koh Beng Seng, *Report on the Pan-Electric Industries Ltd ("Pan-EI") Affair*.

<sup>36</sup> As of December 1986, a total of five firms had failed as a result of Pan-EI's collapse – Associated Asian Securities, Lin Securities, Lyall & Evatt, E G Tan and City Securities.

6.3.1.6 It would appear that MAS did not consider the failure of these eight broking firms to have a destabilising effect on the SES, given that the disbursement rules of the lifeboat fund actually became more stringent when they were clarified in February 1986. As it turned out, disbursements were made only to J Ballas and Cathay Securities. It was unlikely that these disbursements, totalling about S\$15m, were necessary for the stability of the stockbroking system<sup>37</sup>.

6.3.1.7 However, this is not to say that MAS and the banks should not have set rules for disbursement of the funds, and used full discretion instead. In fact, when Mr Ong Tjin An was asked at a press conference on 4 December 1985 how many brokers he expected to draw on the fund, he replied, “None, ... we hope we will not have to use it”<sup>38</sup>. This implied that, from the outset, the lifeboat fund had been seen only as a contingency measure should the stability of the stock exchange be threatened following the SES closure. While the fact that a systemic failure of the SES was averted meant that the lifeboat fund was scarcely drawn upon, it was a successful contingency measure that mitigated potential systemic risk should there have been a threat to the stability of the SES.

### ***Maintaining public confidence***

6.3.1.8 The other policy objective in implanting the lifeboat fund was to ensure that public confidence in the SES would be restored. At the height of the crisis, during while the SES was closed, it was critical that a bailout plan be established to pre-empt any threat of a collapse of the entire exchange. The setting up of the lifeboat fund achieved that objective. Even without complete knowledge of how the crisis would develop, it was still possible to implement a policy aimed at preventing a worst-case scenario. Therefore, by virtue of having the lifeboat fund as a back-up option, the objective of shoring up public confidence was achieved as well.

## **6.3.2 Cost of Policy**

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<sup>37</sup> Chan Oi Chee, “Lifeboat fund – the direction it will take,” *Business Times*, 21 Oct. 1987, p. 1. The S\$15m consisted of a S\$12m drawdown by stockbroking firms J Ballas and Cathay Securities, with another S\$3m paid to public investors for ready contracts entered into with some of the failed stockbroking firms.

<sup>38</sup> Catherine C. Ong, “MAS chief fields the queries on a debacle”.

6.3.2.1 In setting up the lifeboat fund, there were certain costs that had to be borne, mostly by the industry players. These may be broadly categorised as economic costs and loss of goodwill.

### ***Economic costs***

6.3.2.2 The most significant economic cost was the establishment of a sinking fund for the stockbroking industry – brokers had to contribute a 0.25% levy on the commissions they earned from trades to a sinking fund that would go towards repaying any drawdown on the lifeboat fund. While this created a huge dent in the profit margins of brokers and remisiers, it is unlikely this cost could have been reduced, given that the local banks would have expected a reasonable repayment schedule before agreeing to set up the lifeboat fund.

6.3.2.3 In addition, this cost could be seen as a deferred cost from the industry's prior excesses. The lack of a contingency fund or loss allocation procedure within the SES and the limited credit and risk controls previously in place had allowed the industry to operate at a 'subsidised' profit margin for a long time. The cost of the contingency fund could thus be seen partly as a retroactive cost to make up for risks that the stock-broking industry taken in the past.

### ***Goodwill***

6.3.2.4 Goodwill is an intangible asset, referring in this case to the advantage or reputation MAS had acquired up to the point of the Pan-EI crisis. In implementing the lifeboat fund policy, MAS inadvertently expended some goodwill due to the industry's disenchantment with the way the lifeboat fund was managed.

6.3.2.5 Specifically, the loss of goodwill stemmed from three criticisms of MAS' policies with regard to the lifeboat fund.

#### **(i) Relevance**

6.3.2.6 MAS could have reduced the loss of goodwill within the stock-broking industry by communicating more clearly the underlying purpose of the lifeboat fund. The complaints of the industry in various press articles stemmed from a lack of clarity on what or whom the lifeboat fund was set up for. At the press conference mentioned earlier, the press was shocked and bewildered when told that MAS and the relevant parties spent 36 hours to arrive at an agreement on a credit line no one was expected to tap<sup>39</sup>.

6.3.2.7 The lifeboat was even described by one industry player as “a beautiful lady whom you can see but cannot take out on a date”, a reference to the firms’ need for the money compared to the strict rules governing use of the fund that prevented them from qualifying<sup>40</sup>. The fact that, although “quite a number of broking firms were facing severe financial difficulties...nobody could use the money from the lifeboat”, caused the industry no small amount of uncertainty and unhappiness<sup>41</sup>.

6.3.2.8 On one hand, the Big Four local banks that were extending the funds required stringent borrowing criteria to ensure there would not be defaults on these loans. Beyond that, the local banks, being commercial entities, would also have sought to ensure that they would receive a reasonable return on their credit facility. For example, the establishment of a contingency fund not only made for a good long-term loss allocation solution, it also ensured an adequate payment schedule funded by the surviving Exchange members’ profits even if the entire S\$180m fund was drawdown.

6.3.2.9 On the other hand, stockbroking firms felt that having such onerous conditions defeated the whole purpose of having the fund in the first place. The fact that the credit line was scarcely drawn upon substantiated their complaints.

6.3.2.10 Such criticism assumes that the objective of the fund would have been fulfilled only if more potentially-insolvent candidates had been bailed out. While the underlying rationale for the policy was to ensure the integrity of the SES and not to bailout a requisite number of firms, if the total number of stockbroking firms that would have failed without the lifeboat fund did not

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<sup>39</sup> Catherine C. Ong, “MAS chief fields the queries on a debacle”.

<sup>40</sup> Anthony Hoe & Conrad Raj, “Guidelines on lifeboat fund dismay brokers,” *The Straits Times*, 28 Feb. 1986, p. 21.

<sup>41</sup> Conrad Raj, “Exchange to relax lifeboat conditions,” *The Straits Times*, 20 Feb. 1986.

affect the integrity of the SES, then the lifeboat fund could well be considered irrelevant.

6.3.2.11 However, this presumes that the lifeboat fund was solely for the purpose of mitigating the systemic impact of the Pan-El crisis. The fact that the fund could have been used to bail out firms more liberally if the crisis situation demanded was, in itself, a signal to the market that it was safe to resume trading on the SES. This signal would have boosted public confidence, and would have made the fund a relevant policy in terms of dealing with the crisis of confidence, albeit less so in terms of stemming systemic failures.

6.3.2.12 Given the uncertainty that surrounded the viability of various stockbroking firms and the stability of the SES, MAS might have wanted to maintain a certain amount of flexibility in its administration of and exit strategy for the lifeboat fund. Had MAS expressed clearly which brokers qualified and which did not, only to subsequently have to bail out those it had expressly disqualified to save the system as a whole, it might have suffered some loss of credibility. The loss of industry goodwill might have been outweighed by the benefit of additional flexibility. The stockbroking industry was also seen generally as one of the chief culprits of the whole Pan-El crisis, giving MAS more grounds to appear less forthcoming or forgiving.

## **(ii) Fairness**

6.3.2.13 Beyond arguments about the relevance of a lifeboat fund, there was also significant controversy over why the fund seemed to favour some stockbroking firms over others. In an interview, Mr Peter Seah<sup>42</sup> recalled that there was a lot of pressure on the lifeboat fund committee whenever requests for drawing down on the fund were made. The market would have questioned whether the disbursements to J Ballas and Cathay Securities were instrumental in maintaining the stability of the stockbroking system. It is, in fact, unlikely the SES would have collapsed had these two firms failed, which begs the question why they were allowed to draw on the lifeboat fund when others equally in need were not. While the criteria for drawing down on the fund was transparent, the misperception that the fund was meant to repay all

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<sup>42</sup> Peter Seah, interview with authors.

obligations owed probably caused some bankers and brokers significant resentment.

6.3.2.14 Apart from the fairness of the manner in which the fund was disbursed, there were also equity issues relating to the ultimate beneficiaries of the lifeboat fund policy. The local banks held fast to the disbursement and repayment criteria and the principle that a private sector solution should reasonably ensure repayment. In retrospect, it appeared that the lifeboat fund was probably the best investment the local banks had ever made, as they did not disburse all that much money, but received in return full broking licences that added much to their bottom line, and continue to do so today.

6.3.2.15 Yet, Mr Seah opined that during the crisis, it was not clear to the local banks that they would get repaid easily, as was the case when the market rebounded. The S\$1.3m that each bank paid for the broking licence was a hefty sum to pay to join an exchange that seemed to have an uncertain future<sup>43</sup>. The local banks saw the SES memberships as, at most, a sweetener they could use to persuade the banks' directors to agree to participate in the lifeboat fund.

6.3.2.16 Lastly, there was a fairness issue in relation to the three-month moratorium the creditor banks were encouraged to grant the stockbroking industry. To facilitate the establishment of the lifeboat fund, banks were urged by MAS and the Association of Banks in Singapore (ABS) to maintain their outstanding loan commitments to stockbroking firms. They were asked not to "act hastily, such [by] as recalling loans", and told that MAS "must be informed should the banks refuse any stockbroking firms to utilise their undrawn credit lines"<sup>44</sup>. Mr Pillay noted in a meeting with the creditor banks that "MAS would be surprised if there was a tightening of credit to these firms [those thought to be healthy]"<sup>45</sup>.

6.3.1.17 While the moratorium proved to be a key precursor to ensure the success of the lifeboat fund, it did not change the quantum of losses that would eventually be suffered by the industry, merely deferring those losses. It is debatable whether the pressure MAS exerted on the creditor banks to

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<sup>43</sup> Peter Seah, interview with authors.

<sup>44</sup> *Business Times*, "Banks told to maintain credit lines," 4 Dec. 1985, p. 1.

<sup>45</sup> MAS, "Minutes of Meeting with the Creditor Banks of the Stockbroking Industry on 22 Feb 86 at 10.50 AM at the MAS Boardroom".

exercise forbearance was a fair policy action, as creditors should have the right to make rational market decisions with regard to their credit exposures. This issue did not escape the scrutiny of the foreign press; an editorial in *Asiabanking* argued that “anything that brings into doubt the lender’s freedom to place his money on normal commercial terms jeopardises the credibility of the market-place itself”, suggesting that the loss of goodwill might further lead to reputational damage<sup>46</sup>.

### (iii) Exit strategy

6.3.2.18 The economic cost to the industry and the loss of goodwill by MAS could have been minimised with a clearer exit strategy. When the market rebounded in June 1986, the absolute value of contributions to the sinking fund increased significantly as trading volume increased. The lifeboat fund’s usefulness was overtaken by the market’s recovery, as troubled firms managed to find other sources of capital injections. In addition, it was unclear how excess contributions above repayment of any drawdown on the lifeboat fund would be treated<sup>47</sup>. These factors added to the feeling of resentment among brokers and remisiers, as they continued to be subject to the 0.25% levy.

## 6.4 CONCLUSION

6.4.1 MAS’ view has always been to look at the SES as a system. Its policy position was also clearly communicated from the start of the crisis – to maintain the integrity of the SES, not to protect individual institutions. The lifeboat fund’s primary purpose was to rescue the SES if necessary, not to bail out individual SES members. The contention and unhappiness over the onerous conditions of the fund, while understandable, might not have been avoidable even if more effort was spent on communicating the objectives of the fund to the stockbroking firms.

6.4.2 The lifeboat fund also exemplified the principle that a policy can be made with uncertain knowledge, especially if its purpose is to prevent a worst-case scenario.

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<sup>46</sup> *Asiabanking*, “Singapore after Pan-Electric,” Editorial, 70 (Jan. 1986): 6.

<sup>47</sup> Lim Choo Ping, personal communication to Mimi Ho, 26 Apr. 2004. Mr Lim noted that, as of April 2004, the excess funds collected that did not go into repaying the local banks had been absorbed into SES’ accounts.

## **7 COMMUNICATION STRATEGY**

### **7.1 INTRODUCTION**

7.1.1 This section discusses the issues relating to communications between the authorities and other stakeholders during the course of the Pan-EI crisis. In particular, it analyses the need for proper information management and evaluates MAS' public communication strategy as a complementary policy to its primary efforts in crisis management.

### **7.2 PRINCIPLES OF INFORMATION MANAGEMENT**

7.2.1 In managing the Pan-EI crisis, it was crucial for MAS to exercise appropriate discretion and tact in its communication strategy so as to prevent erosion of public confidence. The public's confidence is especially vulnerable during a crisis, and a major challenge for the authorities is to ensure that the level of trust in the market and industry does not nosedive, both locally and globally.

7.2.2 The key to retaining trust is to establish a reliable framework for the flow of information. Crisis management is, for the most part, the management of information<sup>48</sup>. In times of uncertainty, the public requires clear guidance to enable its continued participation in the economy. Therefore, the presence of an authoritative source of information is vital.

7.2.3 In addition, to ensure that the communication of decisions and details is focused, there should be a single, dedicated crisis information team readily accessible to all members of the public. This team should be the central point for disseminating background information, collating information in accordance with the progress of the crisis, and strategically identifying people in suitable positions to communicate with the media as and when required. The team should comprise established representatives whose expertise covers all the major aspects of the crisis. It would also be helpful to include

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<sup>48</sup> David Gabriel, "Lessons that must be learned," *Business Times*, 12 Mar. 1986, p. 8.

prominent members of the public in the team, as this would enhance the team's credibility and commitment.

7.2.4 To ensure that the information is relevant to all recipients, the concerns of different sections of the public must be well identified and documented. Consequences of an information outflow should be anticipated so that the team and the authorities can decide on any follow-up actions. Wild speculation and distorted facts should be officially dispelled without hesitation, and the authorities should emphasise regularly that the crisis information team is the official source of information related to the crisis.

7.2.5 Because the public receives reports on the progress of crisis containment and on decisions made by the relevant authorities chiefly through the local media, the team should ensure that the media upholds the integrity of the information it disseminates. It is the duty of the crisis information team to point out any inaccuracies to the public and make an official statement disclosing the true circumstances.

### **7.3 POLICY ACTION AND RATIONALE**

7.3.1 The Pan-El crisis was a first in the local financial sector. Hence, there were neither comprehensive operational procedures nor relevant historical policies for MAS to base its decisions and actions upon. The Pan-El crisis was the first real test for MAS in terms of management of an industry-wide crisis.

7.3.2 MAS' first priority was to channel all resources into repairing the systemic defects brought about by the crisis, whilst gathering the facts and evidence necessary to accurately predict the aftermath. Potential contingent liabilities in the stockbroking industry remained too overwhelming a concern for MAS to put in place any form of systematic information management structure on an immediate basis at the tipping point of the crisis. Further, as MAS could not draw from experience, there was a greater sense of urgency to achieve physical containment of the crisis than to manage public communications.

7.3.3 MAS did not have a corporate communication strategy in place back then to disburse information to external parties methodically, with minimal potential damage to the system. There was a concern that improper or poorly-timed dissemination of information could backfire and the consequence could be greater fragility in the stockbroking industry. Forward contract entanglements were widespread across the industry up until the point of the crisis, so revelation of the extent of the problem might have increased the bearishness in the market and triggered mass attempts by firms to unwind contracts that had not, in fact, matured. This could have thwarted the containment plans to be implemented later.

7.3.4 In light of these uncertainties, MAS decided to adopt a passive and selective approach with regard to revealing details of the crisis and policy implementation decisions. It was deemed safer to give credible responses to public queries and opinions when rescue plans were in place, rather than to dish out intangible information that could generate more uncertainty within the industry.

## **7.4 POLICY EVALUATION**

7.4.0.1 Negative market sentiment from discreditable sources represented indirect systemic risks in the Pan-EI crisis, had they been allowed to proliferate and impact the mindset of investors and the industry. The objectives of having a proper communication strategy were to enhance the containment of the public confidence crisis and to maintain Singapore's reputation as a global financial centre.

### **7.4.1 Effectiveness of Policy**

#### ***Discretion of Information Disclosure***

7.4.1.1 When news of Pan-EI's failure to qualify for a S\$64m rights issue was first disseminated by the press on 20 November 1985, shareholders, stockbroking firms, foreign investors, creditors and employees of Pan-EI's

subsidiaries expected to be furnished with objective statistics and analyses with which to evaluate their short-term options<sup>49</sup>.

7.4.1.2 The public felt that MAS had an obligation to allay unnecessary fears by keeping everyone accurately informed of the progress of the lengthy negotiations between Pan-EI and its creditor banks. MAS possessed the credibility and stature to take the lead in addressing public concerns and reassuring investors in the face of a crisis. Instead, it opted for “golden silence”, even after Pan-EI was placed in receivership<sup>50</sup>. There was minimal disclosure regarding developments of the meetings between the steering committee of creditor banks and TKS.

7.4.1.3 It appeared to many that MAS had not been sufficiently proactive in relaying the warning signals of an impending crisis to the masses. Numerous members of the investing public were baffled by the SES’ decision to close, and the sudden impression that the market might be in imminent danger resulted in the plunge in counter prices when the Exchange reopened. However, it could be argued that MAS’ conservativeness in not revealing market status information before the SES closure helped to prevent panic selling before any restructuring solution had been arrived at. Thus, the SES could be closed while market prices remained stable, and this allowed MAS and the SC to focus on evaluating restructuring proposals during the closure.

### ***Restoring public confidence***

7.4.1.4 After the SES closure, MAS adopted the practice of releasing statistical figures to combat the rumours that were circulating within the industry. There were concerns that the closing had been a desperate measure to salvage Singapore’s economy. Local investors and stockbroking firms needed assurance that the industry would survive, and Singaporeans needed to know for certain that the crisis was being properly contained.

7.4.1.5 The January 1986 release of the anticipated hierarchy of insolvencies of stockbroking firms clearly indicated the net worth and position

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<sup>49</sup> Najeeb Jarhom, “Pan-EI’s suspension puts market on tenterhooks,” *Business Times*, 20 Nov. 1985, p. 17.

<sup>50</sup> David Gabriel, “Lessons that must be learned”.

of the eight affected stockbroking firms<sup>51</sup>. As mentioned in paragraph 6.3.1, MAS did not attempt to adopt a 'no zero-failure' policy. These reports showed which stockbroking firms were beyond redemption and would thereby be allowed to fail. It provided a better perspective on the state of the industry, and succeeded in defusing public fears that the chain effect of defaults on forward contracts would eventually eliminate all local stockbroking firms.

7.4.1.6 At around the same time, Dr Hu elaborated, in Parliament, on the relatively small contribution of the stockbroking industry towards Singapore's GDP (0.6%), workforce (5%), foreign investments (less than 8%) and global market capitalisation (1%, when combined with Malaysian market capitalisation). This was, he claimed, to "put ... things into their proper perspectives"<sup>52</sup>.

7.4.1.7 Dr Hu's revelation effectively silenced alarmist reports on abandonment of foreign investments leading to a collapse of Singapore's financial system; it illustrated that the international presence in our market did not have a significant impact on the stockbroking industry. More important, this approach of having a credible person of prominent stature to disseminate facts and figures assured the public that the nation's well-being was not being threatened. It helped to calm the mounting tension in a public both wary and weary of the progress of the crisis.

### ***Mitigating reputational impacts***

7.4.1.8 MAS acknowledged the imminent threats posed by undiscerning foreign media correspondents in affecting the reputation of our financial system. Consistent rebuttals of unwarranted media allegations were delivered to refute the fallacies raised by foreign journalists.

7.4.1.9 Journals such as the Far Eastern Economic Review spared no effort in making a big issue out of the Pan-EI crisis, blaming MAS for "its failure to be adequately authoritative in auditing Singapore's stockbroking industry" and therefore partly responsible for the resulting crisis involving

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<sup>51</sup> Koh Beng Seng, *Report on the Pan-Electric Industries Ltd ("Pan-EI") Affair*.

<sup>52</sup> Information Division, Ministry of Communications & Information, *Question for Oral Answer in Parliament on 10 January 1986*.

forward contracts<sup>53</sup>. Then-Director of the Banking and Financial Institutions Department, Mr Koh Beng Seng, responded that the MAS had circulated draft legislation to acquire the powers to examine stockbroking firms' accounts in mid-1985, but implementation of the legislation had to be deferred due to its unpopularity with the industry<sup>54</sup>.

7.4.1.10 The same journalist, Anthony Rowley, also attempted to magnify the extent of the liabilities in the market by claiming that "information from usually reliable sources" demonstrated the value of outstanding forward contracts in the market to be as high as S\$2-3b. This was S\$1b more than the official statistics collected by MAS suggested. Such groundless remarks could potentially have led to local panic selling and international concern over our financial system. Thus, MAS was quick to provide factual statistics to overturn Rowley's baseless arguments.

## 7.4.2 Cost of Policy

7.4.2.1 Unlike the SES closure and establishment of the lifeboat fund, the costs associated with MAS' communication strategy during the Pan-EI crisis were largely social.

### **Social costs**

7.4.2.2 MAS' conservative approach to information disclosure invited criticism from investors who continued to want to trade on the SES. The loudest complaints came from those members of the public who had neither invested nor traded in Pan-EI, but who were nonetheless affected by the closure of the Exchange. A common grievance was that people felt they had not been given adequate time to react before the SES was closed. As few warning signals were given by the authorities other than the suspension of Pan-EI-related counters on 19 November 1985, investors got the impression when the SES was suddenly closed that the crisis was too large for the authorities to contain in any other fashion.

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<sup>53</sup> Anthony Rowley, "Critical MAS before explosion," *Far Eastern Economic Review*, (26 Dec. 1985): 67.

<sup>54</sup> Koh Beng Seng, letter to *The Far Eastern Economic Review*, (23 Jan. 1986): 4.

7.4.2.3 Further, when Dr Hu cited statistics in Parliament to demonstrate the small contribution of the stockbroking industry to Singapore's economy, he may have intended to allay public fears, but several stockbroking firms and, in particular, remisiers, saw it in a different light. The revelation aggravated already-strained relations between MAS and the remisier community, who were very unhappy that the SES' decision requiring them to contribute a quarter of their commissions to the new lifeboat fund had been endorsed by MAS. Cynics have suggested that the MAS was attempting to seek pre-emptive excuses for any possible bloodshed in the stockbroking industry as the crisis worsened. However, from a broader perspective, it was a positive move in terms of public management.

## 7.5 CONCLUSION

7.5.1 Managing a crisis involves tackling systemic weaknesses and restoring public belief that the crisis is well-contained. To get a handle on the public psyche, the crisis management team needs to install an appropriate and reliable information management mechanism and be able to anticipate and manage public concerns and pressures.

7.5.2 The ability to win the trust and restore the confidence of the public is a crucial factor in containing a financial crisis. Proper information management involves leveraging upon existing facts to convince the community of the rationale behind various measures adopted to contain the crisis.

## 8 CORPORATE GOVERNANCE

### 8.1 INTRODUCTION

8.1.1 Proper corporate governance (CG) has become increasingly recognised in today's society as an intangible, immeasurable – yet crucial and fundamental – tenet in the running of a company. While this principle was not as well-developed and acknowledged during the time of Pan-EI, there was some appreciation even then of its importance, and hindsight has only shown just how justified these concerns were. The lack of CG was a major factor contributing to the collapse of Pan-EI and the subsequent crisis in Singapore's financial sector. Therefore, to avoid the possibility of such a debacle happening again, at least from the same causes, it is necessary to increase the appreciation and practice of CG. To do so involves first knowing the consequences of a lack of CG.

### 8.2 CG WITHIN PAN-EL

8.2.0.1 The most glaring example of a lack of CG was within Pan-EI itself. TKS had the leeway to make large-value forward deals using Pan-EI funds, a feat incredible not only in terms of the amounts involved, but especially so given that TKS was not even directly connected to Pan-EI (for clarity, a graphical illustration of Pan-EI's ownership and governance structure may be found at **Annex B**). By November 1985, Pan-EI and its subsidiaries had entered into S\$160m of forward contracts – without the capital to back up these purchases<sup>55</sup>. This is evident by the fact that, having already paid out S\$40m as a result of losses on several of these forward deals that had fallen due, Pan-EI was planning to announce a S\$64m rights issue to generate liquidity for continuing operations<sup>56</sup>.

8.2.0.2 In addition, of the S\$160m of forward contracts Pan-EI had entered into, S\$140m involved the stock of other companies under TKS' umbrella, namely Grand United Holdings Berhad (GUH) and Sigma International

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<sup>55</sup> Koh Beng Seng, *Report on the Pan-Electric Industries Ltd ("Pan-EI") Affair*.

<sup>56</sup> *Ibid.* In the event, this was cancelled due to the discovery of Pan-EI's appalling liquidity condition by the underwriters of the proposed rights issue, led by Standard Chartered Bank and Citibank

Limited<sup>57</sup>. In the first instance, it was not good business practice to have entered into these investments given the interconnected nature of GUH and Sigma, and the resultant concentration of risks. Proper CG procedures, unfortunately absent here, would have dictated that the choice of investments be re-examined, particularly since the individual instructing the investments to be made happened to also own the companies being invested in. At the very least, the sums of money involved should already have been cause for extra caution in carrying out these investments.

## 8.2.1 Role of Managers/Directors

8.2.1.1 In placing accountability for the abovementioned instances of poor CG on the company itself, two parties within Pan-EI are specifically targeted – management and directors. Managers are tasked with the business operations of the company and are thus in closest proximity to its regular functions. There is no reason for them not to be able to exercise direct oversight of the trades, investments and loans that the company enters into. On the other hand, directors are overall in charge of a company; they set its corporate culture and determine the long-term goals and strategies of the organisation. Managers ultimately carry out what directors have determined should be company policy. In that sense, directors are the most important line of defence against fraud within a company.

8.2.1.2 The relationship between Pan-EI's managers and directors is illustrative of the lack of CG within Pan-EI. Whereas Tan Kok Liang (TKL) was directly connected to Pan-EI as its finance director, TKS was not officially on the board of Pan-EI<sup>58</sup>. Yet, TKS effectively wielded the power of a director by virtue of being Pan-EI's largest shareholder<sup>59</sup>. The undue influence TKS possessed may be seen in Pan-EI's acquisition exercise with regard to Adelphi Hotel, which was aborted on the strength of TKS's orders. Described as the "big boss, a charismatic financial giant", he swayed TKL's loyalty away from the company toward himself, thereby gaining an accomplice by which to perpetuate his fraudulent financial activities within Pan-EI<sup>60</sup>. In this case, TKL acted like a manager and TKS as a director.

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<sup>57</sup> Catherine C. Ong, "How trouble started – and the small man got hurt," *The Straits Times*, 8 Dec. 1985, p. 11.

<sup>58</sup> Paul Wee and L.E. Prema, "Kok Liang pleads guilty," *The Straits Times*, 5 Feb. 1986, p. 1.

<sup>59</sup> TKS owned a total of 54% of Pan-EI – 22% through Sigma and 32% through Growth Industrial Holdings, both of which were controlled by him.

<sup>60</sup> *The Straits Times*, "No financial gain, says counsel," 5 Feb. 1986, p. 15.

8.2.1.3 It was essential for TKS to have TKL as an accomplice. Many of the forward deals and market manipulations entered into by Pan-EI were personally conducted by TKL, albeit on TKS' instructions. A non-executive director cannot cause a company to flout CG without the help of a manager within the company itself. This was why TKL was made to stand trial independent of (and, indeed, earlier than) TKS. Yet, the defence rightly noted that TKL derived "no financial gain" from his misdeeds whatsoever<sup>61</sup>. Even the prosecutor was of the opinion that "although legal requirements made it necessary for us to frame the charges against [TKL] as the principal offender, the fact remains that his actions...were done principally for the benefit of TKS"<sup>62</sup>.

### 8.3 CG ENVIRONMENT OUTSIDE PAN-EL

#### 8.3.1 Role of Creditor Banks

8.3.1.1 Apart from Pan-EI, the 35 banks that lent the company S\$453m also have to bear some of the responsibility for the financial crisis that followed. While the high level of debt was not, *per se*, an indication of poor internal control within Pan-EI (although it might have been of such a situation within the banks themselves), the easy availability of credit certainly contributed to an environment in which Pan-EI's lack of CG was condoned and even encouraged. By November 1985, when it first started displaying serious liquidity problems, Pan-EI was S\$453m in debt to 35 banks, including Standard Chartered Bank, Citibank and Banque Nationale de Paris. Under these circumstances, the focus should have been on returning the company to profitability – perhaps by divesting its numerous non-core business lines – and repaying creditors<sup>63</sup>. Instead, Pan-EI was allowed to take the easy and irresponsible way out by borrowing as much as it could manage.

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<sup>61</sup> *Ibid.*

<sup>62</sup> Homer Chen & Lucy Ng, "Tan Koon Swan called the shots, court told," *Business Times*, 5 Feb. 1986.

<sup>63</sup> *The Straits Times*, "Company started with refrigerators," 3 Dec. 1985. Beginning from the single line of manufacturing refrigerators, Pan-EI and its subsidiaries had expanded into the diverse areas of marine salvage, properties, hotels and securities by 1985.

8.3.1.2 Pan-EI had found it easy to borrow partly due to the conditions of loose credit and low interest rates at the time. Banks were very keen to find debtors to lend to. There was “competition for assets in a small yet heavily-banked environment”, causing bankers to “shortcut, if not ignore... their own established lending procedures”<sup>64</sup>. In their eagerness to get and retain customers, banks neglected due diligence checks on potential debtors’ existing gearing and credit-worthiness. They relied instead on outdated financial information, a convenient practice that turned out to be extremely dangerous in view of Pan-EI’s rapidly deteriorating financial standing. Indeed, banks lent indiscriminately not only to Pan-EI but to the stockbroking industry as a whole. By December 1985, stockbroking firms had S\$1.06b in bank loans collectively, compared to their actual paid-up capital of S\$200m.

### 8.3.2 Role of Shareholders

8.3.2.1 A company’s shareholders can be classified as majority or minority shareholders, with the former wielding much more influence than the latter. One of the incongruities of the Pan-EI situation was that the interests of the two kinds of shareholders were in direct conflict, although minority shareholders ultimately lost out. As a controlling owner of Pan-EI’s parent, GUH, TKS could effectively be considered a majority shareholder of Pan-EI. It was in his interest to manipulate Pan-EI’s stock prices and to cause it to embark on its disastrous investment policy, however adversely this influenced the company’s ability to function as a going concern, so that he could make short-term profits off the fluctuations in price he had created. In fact, it is usually minority shareholders, with no stake in a company, who would stand to gain from such a short-sighted strategy. In this case, however, both TKS and small shareholders suffered as events spun out of control.

8.3.2.2 One of the most important components of CG is disclosure. Disclosure is a two-way process – the company should disclose relevant information to interested parties, while these parties also have the right and responsibility to demand disclosure by the company if such revelations are not forthcoming. On the part of the company, the SES Manual in use at the time clearly stated: “A company has an obligation to disclose to the public the information necessary to make informed investment decisions even when, as is frequently the case, the disclosure entailed must be more prompt and

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<sup>64</sup> Laurence Bresler, “When Bankers Put on the Blinders,” *Asian Wall Street Journal*, 11 Dec. 1986.

comprehensive than is required by the securities law<sup>65</sup>. Of course, since listed companies at the time were not under the purview of any regulatory body (the SES itself had only minimal oversight over its members, the stockbroking firms, much less the companies whose stock they were trading), there was little compulsion or reason for TKS or TKL to disclose what was happening within Pan-EI.

8.3.2.3 This is not to say, however, that minority shareholders were completely helpless and therefore entirely absolved of all responsibility for Pan-EI's collapse. Any shareholder, minority or majority, certainly qualifies as an interested party in Pan-EI's financial health, and should therefore have exercised the right to demand disclosure from Pan-EI. The company was, moreover, a "punter's favourite...widely held by small shareholders", and therefore would have had more 'interested parties' than most other listed companies at the time<sup>66</sup>. Unfortunately, it is almost a truism that small shareholders lack the sophistication of majority stockholders, which largely explained why no questions were asked about Pan-EI. Instead, minority stockholders were content simply to ride on the fluctuations of its share prices – later revealed to be partly a result of market manipulation by TKS and others – to make money through speculation<sup>67</sup>. Minority shareholders, therefore, were both victims of and accessories to Pan-EI's collapse.

8.3.2.4 An additional twist to the role of shareholders in Pan-EI's CG is that a technicality might have absolved Pan-EI's directors from the responsibility to reveal the company's massive forward share purchases to shareholders (had the latter demanded the information). Under the SES Corporate Disclosure Policy, "directors of a publicly-listed company have to seek shareholders' approval for any transaction that results in at least 20 per cent of its net assets going into a business that falls outside the principal activity of the company"<sup>68</sup>. This would have been an example of good CG had it been followed. However, Pan-EI's forward contracts had been entered into through two of its subsidiaries, Orange Grove and Pan-EI Investment, both of which were dealing companies. Unfortunately, a loophole in the Disclosure Policy excluded transactions through dealing companies from the disclosure

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<sup>65</sup> Ma Ai Lian, "Pan-EI saga defies spirit and rules of disclosure," *The Straits Times*, 22 Nov. 1985, p. 23.

<sup>66</sup> Doreen Soh, "Many affected if Pan-EI falls," *The Straits Times*, 21 Nov. 1985.

<sup>67</sup> As revealed during the trials of TKS, Peter Tham (a Pan-EI director) and TKL.

<sup>68</sup> Catherine C. Ong, "Experts not sure if directors broke the rules," *The Straits Times*, 11 Dec. 1985, p. 21.

requirement, meaning that Pan-EI's directors were not obligated to inform the company's shareholders of their dubious financial transactions<sup>69</sup>.

### 8.3.3 Role of Auditors

8.3.3.1 Among the professions that have gained much in stature and exposure between the days of Pan-EI and the present is that of auditors. Pan-EI had, in fact, been audited since 1974 by Coopers & Lybrand<sup>70</sup>. Yet, the auditors failed to perform all the due diligences that consequent events proved indispensable; they were censured for this by the Singapore Society of Accountants (SSA) in a report<sup>71</sup>. The SSA's contention was that Coopers & Lybrand's auditors' report on Pan-EI insufficiently disclosed to shareholders the extent to which the company's financing activities made up its profits, such that the "1984 accounts [could] not be stated to be 'true and fair'"<sup>72</sup>. In response, Coopers & Lybrand responded that auditors are only required to be "watchdogs", not "bloodhounds"<sup>73</sup>.

8.3.3.2 Put differently, auditors are only responsible for making sure that whatever accounts the company presents to them are true and fair; they are not compelled to actively seek out or combat fraud. One auditor stated: "If in the course of doing an audit test, the auditor does not suspect fraud, he is not bound to add further tests, he is not obliged to look for it specifically"<sup>74</sup>. While to make auditors detectives would be "time-consuming and the costs prohibitive", the question of where exactly to draw the line beyond which a good auditor should 'suspect fraud' also arises<sup>75</sup>.

8.3.3.3 Broadly speaking, auditors should examine both the management structure and the accounts of a firm. Auditing the management structure involves ensuring that there are sufficient internal controls such that one individual or group of individuals is not able to take control of the company's

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<sup>69</sup> Ibid. "In any case, the Corporate Disclosure Policy does not carry any weight in law with the ultimate penalty for non-compliance being just a delisting".

<sup>70</sup> Catherine C. Ong, "Pan-EI auditors' role questioned," *The Straits Times*, 23 Apr. 1987, p. 1. Ernst & Whinney and Tan, Teo & Wong also audited some of Pan-EI's subsidiaries.

<sup>71</sup> In response, Coopers & Lybrand counter-sued the SSA, for improperly and prematurely releasing the results of its unfavourable report

<sup>72</sup> Catherine C. Ong, "Pan-EI auditors' role questioned".

<sup>73</sup> Catherine C. Ong, "Auditors – watchdogs or bloodhounds?", *The Straits Times*, 4 Jun. 1987, p. 21.

<sup>74</sup> Ibid.

<sup>75</sup> Elaine Koh, "Fraud detection: who's accountable?", *Business Times*, 2 Jun. 1987, p. 8.

finances without this being disclosed to the company's directors and shareholders. This happened in Pan-EI's case with TKS' inordinate influence over Pan-EI's finance director and his resultant unchecked control over the company's funds. The auditors should have questioned both the concentration of Pan-EI's investments in GUH and Sigma and the sheer size of these contracts. This would then have led to doubts about the independence or competence of the managers and directors who condoned such an investment policy.

8.3.3.4 On the other hand, auditing a company's financial statements is not to do the job of accountants insofar as deriving the actual figures is concerned. Rather, it is the process by which the numbers are arrived at that should be of prime interest of auditors; the figures should be consistent and formulas transparent. At the same time, if there are anomalies in the figures themselves, it is also within the scope of an auditor's job to highlight. Pan-EI's S\$453m worth of debts was overlooked by Coopers & Lybrand and only discovered just before the rights issue. Ultimately, however, it should be noted that auditors are external parties. While their job is indispensable, they cannot perform their functions without the cooperation of a company's directors and management.

### **8.3.4 Role of Regulator**

8.3.4.1 The final stakeholder in the financial sector is the regulator. Just as imprudent bank lending was more a catalyst than a cause of Pan-EI's lack of CG, the lax regulatory environment at that period contributed to poor internal controls within the company. The body directly responsible for supervisory oversight of Pan-EI was the Registry of Companies and Businesses (RCB). The Companies Act, which governed all incorporated companies in Singapore, was administered by the RCB. Unfortunately, the RCB did not have enforcement powers to make sure that its rules were adhered to.

8.3.4.2 The same problem plagued the SES, which, as regulator of its member stockbroking firms, should have stopped them from facilitating the enormous amount of forward contracts into which Pan-EI entered. Yet, SES not have any 'teeth' with which to ensure members' compliance, a result of the philosophy of self-regulation that pervaded the pro-business development Exchange at the time.

8.3.4.3 In addition to the role of RCB, much has and has been written about the manner in which MAS dealt with the Pan-EI crisis. Some foreign reports criticised the Authority for failing to see the impending fate of Pan-EI, given its huge debt ratios and indiscriminate borrowing strategies<sup>76</sup>. However, the fact of the matter is that Pan-EI and the stockbroking industry were not, at the time, directly under MAS's regulation; in this light, it is understandable that MAS did not step in until the creditor banks requested that it do so to prevent a market-wide financial disaster.

8.3.4.4 In actuality, the role of the regulator is not to tell a company how to run its business – this would give rise to moral hazard and result in a huge regulatory burden – but simply to make sure that the path the company has chosen is not a fiscally imprudent one. As reflected in its new risk-based supervisory regime, MAS favours supervision over prescription. This is the only way forward given the ever-changing nature of business and finance; the alternative is an over-regulated, stifled, and homogeneous financial sector.

## 8.4 CONCLUSION

8.4.1 To sum up, many parties contributed to the Pan-EI crisis by their lack of insistence on proper CG in the company. More than one of these was also directly affected by the collapse of Pan-EI, making them both victims and co-conspirators. In a mature and developed market in which all sectors of the economy are intertwined, it is an encouraging sign that CG is increasingly becoming one of the most important and appreciated features of a company.

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<sup>76</sup> *Asian Wall Street Journal*, "Singapore's Test", Review & Outlook, 23 Dec. 1985, p. 6. "...in this case, MAS regulators were nowhere to be found. They certainly understood the risks"

## 9 CONCLUSION

9.1 To borrow the words of John A. Appleman, “Every time history repeats itself, the price goes up”. Therefore, to learn from history is imperative, and the most obvious and immediate lessons can be drawn from past crises.

9.2 It is, of course, always better to prevent than to cure. Hence, crisis prevention should always be the first consideration in any long-term crisis management strategy. This is where risk management, good corporate governance and proper supervision tools come in. In fact, corporate governance is key to good internal risk management within a company. In the case of Pan-EI, corporate governance was obviously lacking, and there should have been better risk management in terms of supervision by a regulator. One important aspect of crisis prevention is crisis identification, since it is impossible to solve a problem without knowing what the problem is. Early warning signals that are actively monitored would play a big role in setting off alarm bells for further investigation and pre-emptive action. For Pan-EI, the severe lack of liquidity should have triggered an early warning signal to either its management or the authorities regarding the company’s financial health.

9.3 It is almost a truism that, despite the best-laid plans, things will still go wrong. Having made the best efforts in crisis prevention to predict what these things could be, the second - just as indispensable - step is how to manage a crisis situation when the unpredictable does happen. An examination of the policies adopted by MAS during the Pan-EI crisis offer some considerations to bear in mind for the future.

9.4 The lifeboat fund and SES closure raise the questions of when and why government intervention should take place. Both policies suggest that the premise MAS used was that the market should always be allowed to work freely unless there are compelling reasons not to allow it to do so. The public and foreign reaction to MAS’ communication strategy, on the other hand, indicates that the power of information to calm and to restore credibility should never be underestimated.

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## POTENTIAL LOSSES OF INDIVIDUAL BROKING FIRMS IF PAN EL GROUP DEFAULTS ON ITS FORWARD CONTRACTS

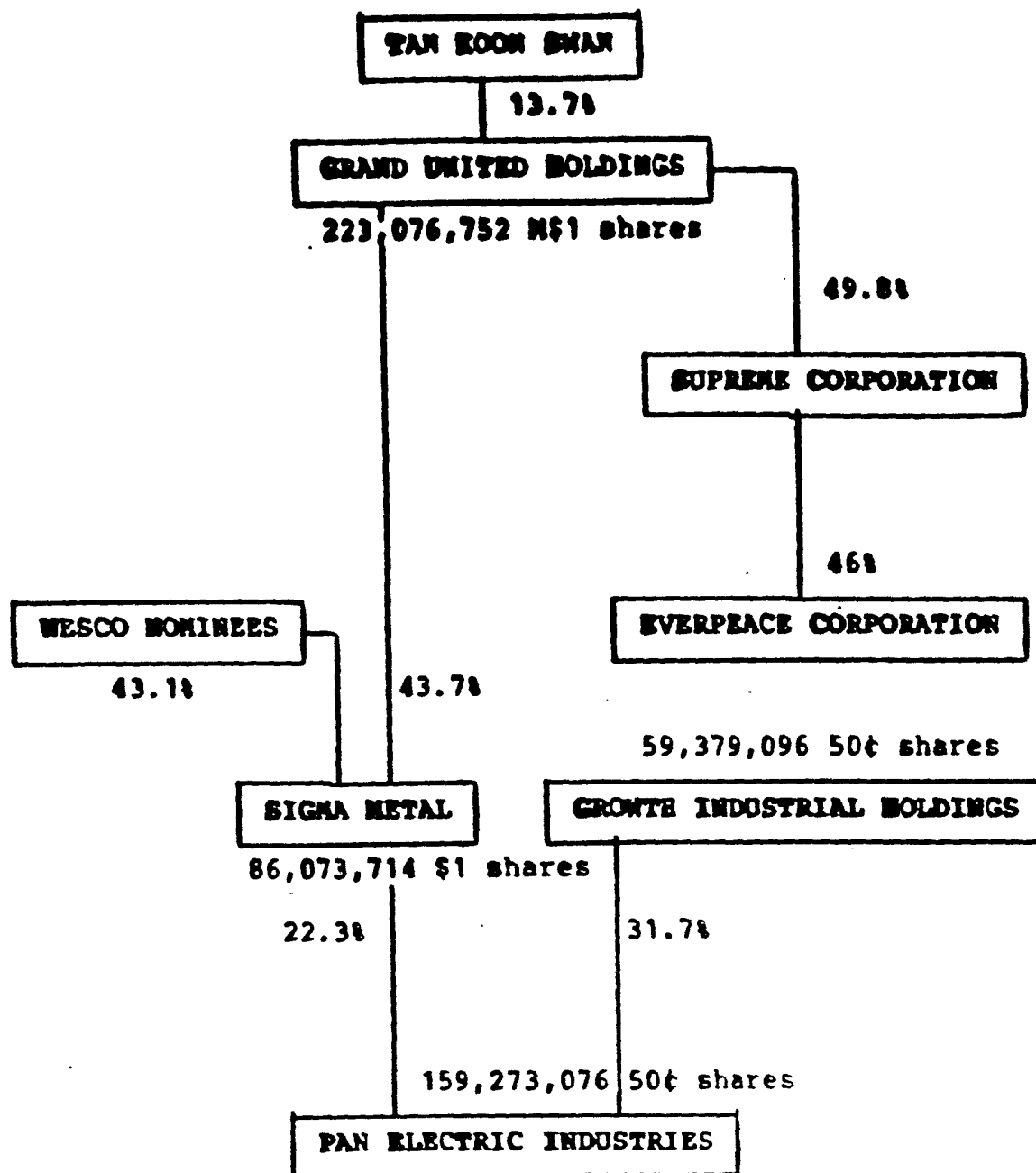
FIRST LINE BROKERS					KNOCK-ON EFFECT ON SECOND LINE BROKERS <sup>5/</sup>				
Name of Broker	Amount of All Forward Contracts Entered Into by Pan El Group <sup>1/</sup>	Losses Arising from Default by Pan El Group on its Forward Contracts <sup>2/</sup>	Net Worth of Broking Firm <sup>3/</sup>	Remarks <sup>4/</sup>	Name of Insolvent First Line Broker <sup>6/</sup>	Contract Sum	Losses as Second Line Broker	Total Losses	Remarks
	\$ million	\$ million	\$ million			\$ million	\$ million	\$ million	
AAS	72.38	41.94	9.2	Insolvent	-	-	-	41.94	Insolvent
J Ballas	22.86	12.96	25.8		AAS	8.74	4.69	17.65	
Alliance	4.89	1.68	4.3		AAS	1.52	0.79	2.47	
E G Tan	14.88	10.68	23.6		AAS	4.85	2.72	13.40	
Lyall & Evatt	13.93	11.57	23.0		-	-	-	11.57	
Ong & Co	6.60	6.03	33.6		-	-	-	6.03	
K H Lim	16.40	12.90	7.9	Insolvent	-	-	-	12.90	Insolvent
Lin	21.50	18.07	28.5		AAS K H Lim	22.02 4.12	11.96 4.12	34.15	Insolvent
Cathay	-	-	3.4		AAS	8.19	4.69	4.69	Insolvent
City	-	-	19.7		AAS	3.51	1.76	1.76	
Tsang & Ong	-	-	13.2		-	-	-	-	
G K Goh	-	-	9.8		AAS	4.00	1.60	1.60	
<b>Total</b>	<b>173.44</b>	<b>115.83</b>	<b>202.0</b>			<b>55.95</b>	<b>32.33</b>	<b>148.16</b>	

- 1/ These contracts include shares in Pan El, Sigma, GUH, Supreme, Roxy, Sealion and MAA. The Pan El Group includes Pan El, GIH and Sigma and their subsidiaries.
- 2/ Losses are the difference between the contract sum and the realizable value. The realizable value of Pan El and Sigma are assumed to be 0, GUH is 70¢ (30% below pre-suspended price), Supreme is 90¢ (24% down), Roxy is \$3.50 (same as 6 Dec 85 price), Sealion is 72¢ (same as 6 Dec 85 price) and MAA is \$8.
- 3/ Networth of broking firms is based on latest figures (vary between end July to October 1985).
- 4/ A firm will be insolvent if its potential losses exceed its networth.
- 5/ If a first line broker is insolvent, and if the forward contracts obligations are not assumed by the SES with the life-boat fund, the losses would be passed on to the second line brokers, causing more firms to be insolvent. If however, the obligations are assumed by the SES, there would not be any knock-on effect on second line brokers and no more firms would be affected.
- 6/ These are insolvent first line brokers whose outstanding purchase obligations with the second line broking firms would have to be absorbed by the latter firms.

Last updated on 24 Dec 85

First Line Brokers				Knock-On Effect on Second Line Brokers			Total Losses (C=A+B)	Remarks	Knock-On Effect on Third Line Brokers				Grand Total Losses (E=A+B+D)	Remarks	
Name of broker	Contract Sum (\$m)	Losses (A) (\$m)	Networth (\$m)	Remarks	Name of Insolvent First Line Broker	Contract Sum (\$m)			Losses (B) (\$m)	Name of Insolvent First Line Broker	Name of Insolvent Second Line Broker	Contract Sum (\$m)			Losses (D) (\$m)
Associated Asian	132.54	92.79	9.2	Insolvent	-	-	-	92.79	Insolvent	-	-	-	-	92.79	Insolvent
K H Lim	31.62	21.83	7.9	Insolvent	AAS	7.11	7.11	28.94	Insolvent	-	-	-	-	28.94	Insolvent
Cathay	-	-	3.4		AAS	8.19	4.69	4.69	Insolvent	-	-	-	-	4.69	Insolvent
Tsang & Ong	4.24	2.40	13.2		AAS	13.21	13.21	15.61	Insolvent	-	-	-	-	15.61	Insolvent
J Ballas	40.85	21.30	25.8		AAS	8.74	4.69	25.99	Insolvent	AAS	Tsang & Ong	2.20	2.20	28.19	Insolvent
Alliance	4.89	1.68	4.3		AAS	1.52	0.79	2.47		-	-	-	-	2.47	
E G Tan	30.15	16.13	23.6		AAS	7.02	4.89	21.02		-	-	-	-	21.02	
Lyell & Ewatt	35.07	23.92	23.0	Insolvent	-	-	-	23.92	Insolvent	-	-	-	-	23.92	Insolvent
Ong & Co	39.23	28.17	33.6		K H Lim	4.80	2.70	30.87		-	-	-	-	30.87	
Lin Sec	39.32	26.97	28.5		AAS	33.28	23.22	58.22	Insolvent	AAS	K H Lim	7.11	7.11	72.49	Insolvent
					K H Lim	11.05	8.03			AAS	Tsang & Ong	7.16	7.16		
City Sec	33.50	23.03	19.7	Insolvent	AAS	3.51	1.76	24.79	Insolvent	-	-	-	-	24.79	Insolvent
G K Goh	2.03	-	9.8		AAS	3.00	1.60	1.60		-	-	-	-	1.60	
<b>Total</b>	<b>393.44</b>	<b>258.22</b>	<b>202.00</b>			<b>101.43</b>	<b>72.69</b>	<b>330.91</b>				<b>16.47</b>	<b>16.47</b>	<b>347.38</b>	

<sup>1/</sup> In the event of a collapse of the Pan El Group, and the failure of TRS and his associates to honour their forward share contracts, it is likely that Malaysian brokers would also default on their purchase obligations to Singapore brokers. Already, Razak & Ramli has defaulted on certain payments to J Ballas. Y K Fung has also defaulted on certain contracts to James Capel.

Note

The above represents Tan Koon Swan's disclosed shareholding interests only. His actual shareholdings are believed to be much higher, giving him controlling interests in Grand United Holdings, Sigma Metal and Pan Electric.