

**Bank Negara Malaysia Conference
In memory of
Tun Ismail Mohd Ali**

**Challenges in the 21st Century: A Capital Market
Perspective¹**

By

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Mr. Chairman,
Distinguished Guests,
Ladies and Gentlemen

First of all, I would like to thank Dato' Dr Zeti Aziz for inviting me here today to join this illustrious gathering of distinguished central bankers, academics and leading financial authorities to pay tribute to the memory of Tun Ismail bin Mohamed Ali, Governor, Bank Negara Malaysia, 1962-1980.

I want to dedicate this essay to three leading central bankers in Malaysia, all of whom have been responsible for my career in central banking: Tun Ismail, first Malaysian Governor, whose speeches in 1975 inspired me to join central banking; Tan Sri Abdul Aziz Taha, the second Governor who interviewed me for the job and demonstrated all the courage and independence of a true central bank governor, and Tan Sri Dr Lin See Yan, who recruited me into central banking and taught me much during the course of my career.

I have been privileged enough, as many are here today, to count the late Tun as their teacher, mentor, visionary and leader. Tun Ismail was a man who left an indelible mark on all those who worked for him. He only had to walk into a room before the audience fell silent. His mastery of the English language was legendary. How many of us who have toiled deep into the night at the Bank Negara Annual Report, polishing and proof reading every word in the days before word processors. Next morning, our drafts would be returned with a word here, a comma there, handwritten in royal blue ink that turned the draft into elegant prose. You could almost feel his appreciation of a job well done or anger at a sloppy piece of work through the thickness of his handwriting.

Who would have thought that this quiet man of few words, feared, respected but revered, could be such a brilliant teacher? I still recall the day I assumed the job as his assistant, or more correctly, bag

¹ I am grateful for my former Bank Negara colleague, Dr Tan Tat Wai for his astute comments on the first draft of this paper. All errors, opinions and views are solely my own, and not those of the Securities and Futures Commission, Hong Kong.

carrier during his regular trips abroad. As Dr Zeti correctly pointed out, Tun was not an easy man to work for. There is this story of one assistant who shall remain nameless, but who shall go down in Bank Negara legend as the classic travel tales with Tun. He was in London accompanying Tun on a business trip, and after the day's business, Tun said he wanted to go for a walk. The assistant dutifully dressed casual and waited for him downstairs. Tun came in his immaculate three-piece pin strips, and judging from his expression, the dress code was not right. The next day, Tun said that he wanted to go for a walk. Accordingly, the young man wore his best three-piece suit, and Tun came downstairs wearing an open collar casual blazer, with the comment that his assistant was overdressed!

Woe betides any assistant that did not know his brief, behave correctly or sins of sins lose his luggage. It was therefore with great trepidation the first time I traveled with him to the BIS Annual Meeting, when he decided in a moment of relaxation to walk around Basle. I had never been to Basle before and I followed respectfully slightly behind him as we meandered the streets of old Basle. When we reached a junction, he asked whether we should turn left or right. I panicked, but had enough wits to remember that Basle was centered near the Railway Station. And it was small enough to get back to the Hotel Schweitzerhof, just beside the Station and the BIS headquarters. And so I replied in as confident a voice as I could muster, "left". And we kept on going left until we got back to the hotel. After which I dashed to the Concierge to get the map and memorized as much of it as I could. The lesson to me was etched in my soul: always do your homework and never take anything for granted.

I used the BIS anecdote, because Tun was so deeply interested in international financial issues, and fond of international financial meetings. As far as I knew, as Governor he never missed a single Annual Meeting of the IMF or the BIS. He would use to opportunity to attend every session, especially the Per Jacobsson lecture, meet his old friends such as Lord Richardson, and discuss the current issues of high international finance. It launched my own career in international finance, and as Jerry Corrigan, former President of the New York Fed, recently said, a man may leave central banking, but central banking never leaves the man.

The Bretton Woods Financial Architecture

The world of international finance when Tun was Governor was the Bretton Woods framework of fixed exchange rates facing its first serious crisis. In 1971, the US abandoned its fixed exchange rate against gold at US\$35 per ounce. Faced with the ensuing sterling crisis, Tun helped make the crucial decision to abandon the peg against sterling, tried a free float, and eventually adopted a peg against the US dollar. This marked the beginning of the era of floating exchange rates, in which the IMF had to change its mandate from providing balance of payments funding to defend fixed exchange rates to providing macro-economic advice and providing funding when required to maintain stability in exchange rates.

The proverbial straw that broke the camel's back of the US dollar link to gold was oil prices, which rose over US\$40 per barrel in 1980, when Tun retired. To deal with the ensuing inflation, the US economy witnessed the Volcker shock, when the Fed raised interest rates to as high as 21% per annum, sending shock waves around the world. Even though OPEC oil surpluses were recycled through the Eurodollar market, Latin America began the lost decade of 1980s, as it tried to deal with the classic two gaps – high balance of payments deficit and large budget deficits that culminated in a vicious circle of high inflation and massive devaluations. Despite her huge reserves and low debt ratio, Malaysia did not escape lightly. As Malaysia came out of the commodities boom at the end of the 1970s, its current account deficit in 1981 was 11% of GDP and budget deficit was 18% of GDP. Fortunately, the high domestic savings rate and prudent accumulation of reserves enabled Malaysia to ride the recession, but inadequate supervision of the deposit-taking cooperatives resulted in the financial crisis and recession of the mid-1980s.

Globalization and the Digital Divide

In hindsight, the 1980s shocks that Malaysia received were the growing pains of globalization. With the fall of the Berlin Wall in 1989 and the integration of over 2 billion consumers and workers from previously centrally planned economies into the global market economy, the world witnessed an unprecedented rise in trade. With their de facto linkage to the US dollar, the exporting nations of Asia enjoyed unprecedented growth in trade and capital inflows, which brought also asset price inflation. But the Mexican crisis and devaluation of 1994 gave a warning signal. In Asia, US\$300 bn arrived in the form of capital inflows to the four crisis economies in the three years prior to the crisis, and roughly US\$200 bn was withdrawn in the two years post-crisis, mostly in bank credit. This tidal wave of foreign currency flows overwhelmed whatever central bank reserves available to defend fixed exchange rates.

It is not my place here to add to the growing literature on the Asian crisis. I have been asked by Bank Negara to talk about a capital market perspective of the 21st century. But we cannot discuss changes in capital markets without understanding the forces of globalization and the digital divide. The IMF defines globalization as “the growing economic interdependence of countries worldwide through the increasing volume and variety of cross-border transactions in goods and services and of international capital flows, and also through the more rapid and widespread diffusion of technology.” My personal conclusion is essentially two: *globalization is all about the spread of market forces in goods and services, and such forces are driven by technological change, which is re-writing the global balance sheet, hence the digital divide.*

Consider the following:-

- Deregulation has given rise to new financial products and institutions. The notional amount of world derivatives outstanding as of end 1999 was US\$88 trillion, roughly twice

total world banks' assets (US\$43 trillion) and about three times World GDP (US\$30 trillion). Institutionally, total assets of mutual funds, pension funds, retirement funds and insurance companies amounted to some US\$50 trillion as of end 1999, 16% higher than total banks' assets.

- Income and wealth distribution has worsened by most World Bank and United Nations estimates. The US stock market capitalization already accounts for one half of global stock market capitalization.
- Globalization of capital markets is already a reality, but laws and regulatory frameworks are still national. But the Web has already eroded tax and regulatory barriers, so that the world is operating in marketpace, instead of a marketplace, which is divided into sovereign jurisdiction.
- Information is a market fundamental. For markets to function efficiently, high quality and relevant information must be readily accessible to the entrepreneurs, investors, consumers and policy makers. Liquid markets will migrate to where high quality information is readily available. Where information asymmetry exists, the markets will price the differential as additional risks.
- Technology is a driving force for change. Equity markets are valuing knowledge at New Economy multiples, whilst economies not geared to join the New Economy are less and less able to access either private or official capital without large spreads or additional conditionality.
- The combination of deregulation, flexible exchange rates, financial innovation, technological change and globalization of financial markets mean that capital flows are more volatile than ever. In 1995/1998, the Dollar/Yen had greater volatility than equity market volatility. And, stock market volatility in which major indices move as much as 5% a day is not uncommon.

Where does that leave management of the financial system in the face of such volatility?

Sustainable Development and Financial Markets in the 21st century

We cannot discuss the role of financial markets in sustainable development with going back to their basic functions. We actually use the financial sector or capital markets for four separate functions:-

- resource allocation
- price discovery
- risk management; and
- corporate governance.

I believe prior to the Asian crisis, the first two functions were reasonably well understood, but it was only after the crisis, that most policy makers began to appreciate the next two issues of risk management and corporate governance.

In reviewing the key speeches of Tun Ismail Mohd Ali from 1962-80, I was struck by the fact that mainstream development economics over the last 50 years have been preoccupied with achieving high growth, since growth was associated with development and poverty eradication. But there was no clear realization that high growth can be achieved only at high risks. But Tun instinctively understood that where finance was concerned, he needed to manage the process of change and development through strong institutional development, creating markets and institutions where necessary, so that monetary policy could be strengthened through more efficient markets and institutions.

For example, we should not forget that the Kuala Lumpur Stock Exchange grew out of the clearing house of Bank Negara in 1973, and Tun Ismail was instrumental in creating the commodities exchange, the mutual fund industry and laid the foundations for the mortgage market.

Even though Tun was an internationalist, comfortable in the world of high international finance, he was first and foremost a nationalist. For someone who was educated in England, a student of Keynes at a time when socialist and Fabian ideas of development economics shaped the elites of India, Africa and Latin America, Tun was a pragmatist. He listened hard, but decided solely on what was above all the national interest. His lasting legacy was orthodox finance – never spend more than what you earn and always keep a little more reserves than you really need for the rainy day. I still remember asking why Malaysia needed to borrow in international capital markets when it had such low debt service ratio and high reserves. He replied, “because you never borrow when you really need it”.

In trying to understand how to operate a highly open economy in an increasingly volatile global capital markets, it would be important to draw upon Tun Ismail’s world view of how Malaysia’s radical but balanced transformation of the real economy since independence in 1957 enabled Malaysia to be one of the leading financial and economic success stories of the post-colonial era. Within two decades of independence, Malaysia had achieved sufficient growth:-

- (i) “to become the classic example of what self-help and self-reliance in implementing an effective diversification programme can achieve in terms of stable and balanced growth;
- (ii) to build up a sound balance of payments structure and accumulate substantial reserves abroad to cushion the economy from future external shocks, these reserves being large enough now to finance about 7 months imports at the current level; and
- (iii) to contribute to the international adjustment process, since the global good dictates that nations with good external

positions should expand their economies consistent with relative price stability².”

In other words, getting sustainable growth meant that you need to manage national risks and not just sectoral risks. And you manage such risks through diversification, stable and balanced growth and substantial reserves.

I only began to understand the wisdom of Tun Ismail’s approach when I began my secondment to the World Bank from 1989-93, where I studied the causes of bank failure in developing countries in the 1980s. Basically speaking, the 1970s sovereign debt crisis arose because governments bet on promoting growth through huge domestic and external borrowing. After that crisis was resolved through IMF restraints on fiscal imprudence, the crisis of the 1980’s and the Asian crisis erupted because the private sector took huge risks through excessive leverage. It was widely believed that as long as the public sector did not run large deficits, the engine of national growth through the private sector would be self-stabilizing. Of course, that turned out wrong. Private sector mistakes can destabilize economies as much as public policy errors.

Consequently, what we really need to focus on is that we need to manage sectoral risks, which add up to national risks. And national risks add up to global risks. In essence, financial crisis - which covers banking crisis, currency crisis and debt crisis can really be reduced to two fundamental types, which is either a solvency crisis or a liquidity crisis. Now solvency crises can destroy individual companies, financial institutions or whole economic sectors through the liquidation mechanism, but in practice, you cannot liquidate a sovereign nation. Countries generally face liquidity crisis, even though some of them could be technically insolvent. So the question is how do we prevent financial crisis through national risk management?

As basic Risk Management in any MBA course in Finance 101 teaches, risk management is all about the identification of risk, the measurement of risk and then hedging or laying off such risks. We know manage risk very well at the firm level, and possibly at the sectoral level. But what is the nation doing at the national level, when different ministries and agencies are looking at separate risks? In short, we need a coordinated approach towards the management of national risks, especially systemic and externally induced risks. We also need to be aware that if we have concentrated banking systems relative to the capital market, we are concentrating our risks.

What I am saying is that our present financial structure is bank-centric, depending too much on banks to be a source of national savings and investment. But if we rely too much on the banks, and the banks fail or make non-performing loans, a high savings ratio is illusionary. We have concentrated our risks too much in the banking system.

² Malaysia in the International Capital Markets, March 3, 1980

Moreover, our banking systems are fundamentally designed for normal events, whereby banks behave normally with a banking book that is priced for normal times. The process that takes care of the spike is the lender of last resort function of the central bank. In a solvency or liquidity crisis - the spike in interest rates - the bankers run to the central bank for liquidity. Without liquidity, interest rates rise further and at excessively high interest rates, all banking books could become insolvent when assets are marked to market. The market panics when it realizes that the depository of public savings, the banking system, may be insolvent.

Consequently, the Bagehot dictum that central banks should lend freely during a crisis against collateral is the process by which central banks provide liquidity for the market to restore normal conditions as soon as possible. During these times, a central banker is a market bookmaker providing liquidity at a price when no one else is willing to provide liquidity. In a closed economy, a central bank can print money to provide domestic liquidity. But in an open, global market environment, the ball game is very different for the lender of last resort.

Instead of waxing about global financial architecture, we should think in technology or engineering terms. In technical terminology, financial systems or markets are essentially networks, across which information and value flows. We have securities market networks, banking market networks, insurance market networks, trading and commercial networks that are all linked through hubs of exchanges, clearing houses or through ECN "crossing" of trades. As Professor Mundell said yesterday, "there are no good or bad flows, only good or bad currency regimes". Even currency regimes are risk management tools - they can add or reduce risks.

The trouble with the present network architecture of global financial markets is that it evolved through loose alliances and mergers and no one actually sat down to design the global network. As we know, networks have both positive and negative externality. Networks create leverage whereby one participant can exchange and use another participant's resources. Technology and globalization means very fast speed of transmission of information and fund flows, enhancing volatility, the range of fluctuations and speed and size of potential damage.

Wide networks allow complex multi-modal relationships to be entered into, in which leverage can be many tiered³. The unfortunate part is that if one component of that leverage chain fails, the whole network may fail. In other words, leveraging actually accentuates or multiplies the interdependency of markets through the global market network.

Today, the global financial market has evolved through a patchwork of various local area networks linking banking, securities, insurance, asset management and real trades together. The flaw of

³ In other words, derivatives enable a single capital base to support multiple leveraging with many counterparties.

patchwork of networks is that it is only as robust as its weakest link. And the trouble is that in the global area network, local networks were not traditionally designed to take global shocks. Most domestic financial systems have been designed on the basis that the central bank takes care of the spike which typically originate domestically.

Consequently, the resilience of the domestic network design to stress is very important to the global architecture. How do we design the local area networks that are our domestic financial systems to become resilient to take global shocks? Using a simple example, the LTCM Value-at-Risk model was designed to operate convergence trading when markets historically moved a maximum of four standard deviations. The Russian crisis caused the markets to move 15 standard deviations, so LTCM went bust. It was the same story with the Asian crisis economies. These financial systems were essentially designed in the 1960's and 1970's for domestic savings mobilization purposes. Most authorities, including the IFIs and leading academics never dreamt that these financial systems would be subject to such exchange rate or capital flow shocks.

The first conclusion I draw from all this is that we now have a global problem in which there is no official lender of last resort or liquidity provider of last resort when global markets begin to panic for one reason or other. The major shareholders, for moral hazard reasons, will not permit the IMF to fulfill that function. The logical answer to all this is that domestic financial systems will therefore have to be designed to take global shocks at higher levels than before. In the words of Dani Rodrik on Monday, in the absence of a global war chest, local war chests need to be much larger than before.

The second conclusion that I draw is that we need to look at risks much more carefully than before. Today's risks are much more complex and inter-related than we had previously understood. Using VaR models, we glibly assumed that market risk can be differentiated from credit risk. But as the LCTM crisis has shown vividly, during the financial crisis, you can't distinguish a market risk from a credit risk. In essence, a liquidity crisis transmits very quickly across the global network to become a solvency crisis.

Taken together, both conclusions suggest that we really need to rethink our global architecture and the way we manage our risks domestically. We have to worry about how risks emerge in different parts of our economy and financial markets, how systemic risks interplay between the different components and how such risks interact with external forces. We need to identify these sectoral, national and global risks, and then we need to hedge or shift these risks. Small economies and domestic financial systems cannot depend on the international architecture to handle these global risks.

Seen from this angle of national risk management, let me try and answer the question that seems to stand out during the Asian crisis - why is it that economies with high central bank reserves and lower debt survived the shocks better? In hindsight, the answer is very simple. The Modigliani-Miller theorem tells us that asset diversification reduces

risks. But these assets must be negatively correlated with each other. For these small banks in small economies that cannot diversify their risks, the one asset that is 100% negatively co-related with your domestic risks is foreign exchange reserves. And I am not talking about gross reserves, it has to be net reserves. Again, as the LCTM crisis showed, during a financial crisis, it is not net liabilities that matter, but gross liabilities. Consequently, the central bank must have deep net foreign exchange reserves to be able to absorb all these global shocks on the domestic economy.

To conclude, by being a nationalist in a global world, Tun led us to think about how we manage national risks in a volatile global market. And the only way you can manage these risks is through good information. Unfortunately, most emerging markets still have very poor information to manage our risks. We base all our statistics on accounting information, where international accounting standards are not properly applied, enforced or implemented. Without good accounting information to price risks, our financial institutions are not managing their credit and market risks correctly, and then they become vulnerable to the next crisis.

I recently attended a conference where Carlos Massad, Central Bank of Chile Governor, made what I thought was the most eloquent case for domestic management of global pains. He said initially Chile concentrated on volatility suppression, through exchange controls and a managed float. This did not work. They then realized that with globalization, they have to learn to live with volatility. That transition was not easy, which require hugely painful adjustment for greater flexibility of exchange rates and interest rates, for both the private and public sector.

It is not my job today to debate the merits and demerits of exchange rate regimes, only whether central banks are managing national risks adequately. Tun Ismail understood very well the uncertainties of markets. He understood the relative independence of central banks, viewing the term “independence of the Central Bank” should be interpreted as independence within the Government, rather than from it⁴. I am sure Tun would agree with the British eminent social philosopher, Benny Hill, who said, central banking, like success is relative. “The more success, the more relatives”.

To return to a serious note, in the 21st century, the only certainty is that there will be huge changes, huge volatility and profound changes in our financial landscape. Tun Ismail understood that central bankers need to change and adapt with the times. A quarter of a century ago, he said, “In practice, there are no general rules to govern the central bank’s conduct in the attainment of its objectives in a dynamic economy: its role must, by necessity, evolve and change according to the time and the circumstances.”⁵

⁴ “The Management and Organizational Structure of the Central Bank of Malaysia”, July 29, 1972

⁵ The Role of the Central Bank in Southeast Asia’s Financial Markets, July 1975

But he also understood that to manage that process of change, he needed to develop a cadre of central bankers and bankers who understood the need to evolve policies flexibly and implement such policies effectively.

To quote, “My chief role and responsibility, as the head of the Central Bank in these early years of its existence, is to attempt to build up a body of traditions in the Bank: a tradition of absolute integrity, a tradition of competency at the highest possible level in its organisation, a tradition of efficiency even to the point of ruthlessness, a tradition of continual and dependable expertise in economic affairs generally and in monetary matters particularly and above all, a tradition of being able readily to recognize and accept absolutely the dictates of the national interests, as against the interests of the individual or particular groups either within or outside the Bank.”⁶

“It is timely that we should examine the real meaning of integrity, hard work and capacity for efficient management of our affairs, accountability and corporate citizenship.”⁷

These profound words have served Bank Negara and Malaysia well. They taught a whole generation of his students to be humble in our appreciation of the complexities of growth, that growth is not an end in itself, but a means to greater prosperity and well being of the common people, the rakyat. Central bankers and financial regulators do well, when they provide a stable and balanced environment for that growth. Tun Ismail was a greater teacher, and those of us who follow are proud to be here to honour his achievements, his legacy and his memory.

Dr Zeti, the torch that Tun Ismail has borne has now passed to you and your colleagues, the proud bearers of the best traditions of central banking in Malaysia. We thank you for your hospitality and wish you all the best for the years to come. We know you will bear the tradition with honour and distinction.

Kuala Lumpur,
30 August, 2000

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