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Singapore, Diversification Theory and the Global Financial Crisis (GFC)

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Abstract

Since independence in 1965, Singapore has grown rich by opening its borders and encouraging Multi-National Enterprises (MNEs) to call the small city state home. However, the Asian financial crisis (1997-08), which saw Singapore experience its first significant economic downturn in decades, led to a change in direction with economic public policy being directed towards achieving strategic diversification of the national economy. This paper will examine how the 2007-09 Global finance crisis (GFC) exposed Singapore's *uber* form of economic diversification - financial sector internationalisation, multinational enterprise (MNE) strategic engagement, biotechnology and medical research and so on - as being incapable of cushioning the national economy from external shock. The paper highlights how, despite recording record economic growth in 2010-11, the economic vulnerabilities exposed during the GFC will continue have far-reaching implications for the island state's policymakers diversification macro-strategy over the coming decade/s.

Keywords: Singapore, globalisation, governance, strategic diversification, multinational enterprises

The city-state enjoys its status as one of the most globalized countries in the world in terms of migration, global finance, and telecommunications, and yet regularly garners criticism from international human rights institutions for its insistence on practising its own brand of politics, whereby certain liberties are curtailed in view of local multiethnic and multi-religious realities (Chong, 2006, p. 266).

Introduction

Singapore has long positioned itself as a centre for multinational enterprises (MNEs) and has gained a strong following amongst advocates of economic globalisation through a mix of public and private enterprise. Political and enterprise leaders across the developed and developing world have openly expressed their admiration for the Singapore model (Ghesquiere, 2007). As a consequence, the severe impact of the global financial crisis (GFC, 2007-2009) on the Singaporean economy resonated well beyond the small city-state's borders. For the second time since 2000, Singapore quickly dropped into recession in 2008-09 following a sharp decline in American consumer demand, as a direct consequence of the global financial sector debacle. This was despite over a decade of concerted policy effort by the state's leadership which has worked hard to place Singapore at the forefront of global best practices in diversification practice (with reforms across the financial, MNE, education, research and other sectors). Following the 2001 national recession, resulting from a global electronics slump, Singapore's elite led a series of in-depth macroeconomic reviews concerning the country's future economic direction. Following a detailed consultation process with leading global corporate and academic figures, this policy introspection concluded that Singaporean economic development would be best served through an expanded policy of financial sector internationalisation and higher levels of MNE engagement to achieve sectoral diversification overall (Neo and Chen 2007). A form of *uber*-globalisation was embraced at all policy levels to ensure Singapore would serve as an ideal economic and social platform for MNEs and local innovative enterprises.

The rapid freefall in Singapore's economic growth in the wake of the 2007-2009 GFC exposed the limitations of this policy. Despite a decade of significant government expenditure aimed at diversifying the national economy through the establishment of new sectors in biotechnology, medicine, industrial design, the arts, and others, the Singapore economy has proven no more capable of handling external economic shock than its pre-diversification model. The principle task of this paper then will be to utilise Singapore's experience of the GFC to ask broader theoretical and practical questions regarding the long-term effectiveness of financial sector

restructuring and strategic diversification for those city-states or hub cities engaged in the globalisation process, and for the numerous MNEs headquartered in these cities.

A Global City and Diversification Theory

Since the 1990s, Singapore's policymakers have identified the island state as a global city and as such sought to attract innovation-oriented multinational enterprises by touting Singapore's advantageous location as a regional and global centre (Bhaskaran, 2009; Ghesquiere, 2007; Neo and Chen 2007, Ngiam, 2007; Ong, 2009; Tan (a), 2009; Tan (b), 2009; Williamson, 2004).

Policymakers have identified a strategic over-reliance on a particular economic sector - electronics – which had led to over-exposure to global fluctuations in this and related sectors (such as air freight logistics). To offset this exposure, policymakers, in an act of macro-risk management, have undertaken extensive planning processes aimed at enhancing the capabilities of existing sectors such as finance, tourism and medicine, whilst nurturing new ones, such as biotechnology, specialised design, and innovative engineering. MNEs have consequently been courted and offered favourable policy environments to encourage them to either upgrade existing operations to higher value adding activities, or to headquarter themselves in Singapore through tax and infrastructure incentives. The political policy elite have taken a leading role in selecting those sectors to attract through direct state investment. Bhaskaran (2009, p, 83) places Singapore's movements towards strategic diversification within the broader global economy:

The global economy is increasingly a network economy that links different global cities all over the world. Each of these global cities is like a node that switches all kinds of flows, be it flows of people, capital, ideas, telecommunications or tourists. These are nodal points, and what is important is that they create a lot of value. People in such cities can generate a lot of income, and, therefore welfare, if a city succeeds in becoming and maintaining itself as a regional hub. That is what is in it for us.

According to diversification theory, with the achievement of global city status comes a matrix of self-reinforcing economies of scale as professionals across a spectrum of industries are attracted to the city because for the very presence of the 'other'. In turn the each professional cohort, be they investors, bankers, lawyers, medical and science practitioners, educators and entrepreneurs, will create new innovative opportunities from within, and for, the 'other' professionals. That MNEs are attracted to such environments because of this self-reinforcing dynamic and diverse professional ecosystem creating both the talent and consumer markets needed for their products and services.

Ngiam (2006, pp. 196,106) asserts that global "cities compete on ideas, and ideas spring from the mind of the individual. Unlike oil from the ground, ideas derive from knowledge. And knowledge is acquired from learning" and "they thrive because size alone is not the key determinant

of success, but competitiveness through knowledge acquisition via education, training of labour and stable good governance”. In theory then, diversification theory advocates that the presence of a wide range of academic theorists and professional practitioners should create within a global city an environment in which knowledge provides a critical strength for sustainable economic and social progress. This has been Singapore’s objective over the past two decades. In applying the theory of diversification to Singapore, when the electronics or manufacturing sector suffers a temporary decline, other sectors, such as finance, biotechnology, education and training, can be expected to compensate for this sector-specific lull in growth (Bhaskaran, 2009; Ghesquiere, 2007).

However, as the 2007-2009 GFC has shown, whilst the globalisation of cities (such as Singapore, New York, London, Dubai and others) throughout the world has resulted in the development of competitive forces, it has not generated the individual or institutional knowledge required to avoid excessive risk behaviours. Further, that the abundant presence in these cities of human capital in banking, other financial institutions, universities, think-tanks and media enterprises has done nothing to deliver diversity theory’s promised moderation of periodic economic calamity. Singapore’s financial sector, despite applying and maintaining arguably the highest financial and corporate governance standards, nevertheless suffered significantly in the wake of financial collapses elsewhere. The strategic efforts at diversification by the Singaporean policymaking elite over the previous decade did not effectively cushioned Singapore from external economic shocks as diversification theory prescribed. MNEs, in the wake of the GFC, showed no hesitation in leaving Singapore and re-locating to lower labor cost destinations such as China and India (Crispin, 2009). As the electronics enterprises exited, the other diversification pillars expected to buoy the national economy – from finance services, wealth management, biotechnology, medical research and services, transport (air, freight, port) to tourism and leisure - all slide into economic downturn (to be explored further in section *Government-MNE Engagement* and *Table 8*). Thus, serious questions are now being asked amongst Singaporean policy makers as to the continued validity of both the diversification strategy and the proactive policy to attract international MNEs (Ngiam 2006, Lim 2009, Tu 2009, Liew 2009).

As Singapore’s diversification policy prescriptions are the result of extensive international consultation, including highly-paid academic advice through Harvard University and Stanford University, it has taken little time for considerable international questioning to emerge regarding diversification theories validity as a policy risk management tool (Australian Broadcasting Corporation, 28th March, 2009). Post-GFC, the continuing economic plight of the United States of America and Europe may herald a significant intellectual shift amongst Singaporean policymakers in the future away from an overreliance on the traditional intellectual centres of international

economic thinking found in New York, London and Berlin to new ones, including Beijing and Shanghai. The vocal and forceful nature of the criticism directed at the Singapore government post-GFC, and the subsequent poor 2011 electoral results for the long-ruling People's Action Party (PAP), shows that fewer Singaporean citizens are prepared to back the government's diversification economic policy without questions. In this they are hardly alone. The GFC and continuing economic strife in Europe has brought into question the U.S. and Europe own long-held answers to economic growth from both within and without. How can anyone today seriously argue that the generators of diversification theory, scholars of Harvard, Yale, Chicago, Oxford, Berlin and Western others, know any more about the path of economic development than those in Beijing, Shanghai, Taipei, Seoul and others? Clearly the long-term intellectual implications of this GFC-derived intellectual shift will be profound.

Singaporean Prosperity, Good Governance and MNE Diversification Theory

Singapore's success story of rapid economic development has been examined extensively elsewhere and will not be retold here (Boon & Chen, 2007; Ghesquiere, 2007; Lim, 2009). Singapore's success has highlighted the crucial importance of good government, able to adapt to new circumstances and times:

After spending forty years engaged in the economic development of Singapore, I am convinced that the most important condition for success is good government. A good government is one led by able, honest, selfless men and women (Ngiam, 2006, p. 88).

Since 1988, the Singaporean government through taxation and revenue generated by government linked corporations (GLCs) has operated without the need to access any form of local or foreign borrowing, and indeed has been a massive investor in both domestic and international enterprises; including several major financial institutions during the worst periods of the GFC (see section Global Finance and Singapore). Along with a reputation for prudent financial management, the People's Action Party (PAP) leadership's highly pragmatic leanings, and an absence of corruption, have meant that foreign political and enterprise leaders have found the Singaporean government easy to engage with (Koh & Mariano, 2006). It should be noted that Singapore's economic success aided Singapore's adoption of MNE strategic diversification in the 2000s. Its efforts to attract successful MNEs at the forefront of innovation under the diversification program came off the back of a 30 year record attracting and developing partnerships with MNEs looking to utilise Singapore at lower-level capacities.

The Singaporean government has never sought to protect domestic enterprises at the expense of foreign multinational interests investing into the national economy. State-owned enterprises, government-linked enterprises (GLCs) and state-encouraged enterprises, were all

founded and developed by the government, largely to support MNEs operations in the island-state. As a city-state with a small market and a large strategically located port, the government elite has been a constant champion of global free trade. Today, Singapore remains active in both bilateral and multilateral trade processes (Rana, 2009). The Singaporean government argues that even when multilateral processes such as the Doha round of free-trade talks break down, Free Trade Agreements (FTAs) remain the pathway forward for the city-economy (Singapore FTA Network). Singapore's political and macroeconomic environment, therefore, are all attuned to the needs and wants of MNEs seeking a risk free environment from which to launch their products and services into greater Asia. There is little risk in stating that Singapore is without peer in enacting policy prescriptions that are favourable to MNEs operations, and supporting these with an array of practical infrastructure, legal, human resource and social capital initiatives.

The 2001 Electronics Recession and Period of Rapid Economic Growth (2002-2007)

In a 2007 speech, Prime Minister Lee Hsien Loong stated that Singapore's success was attributed to "a willingness to work hard, make changes and adapt to the world as it is and not as we wish it to be" (Neo & Chen, 2007, p. 15). This statement came with a background context of Singapore having worked its way through both the Asian Financial Crisis (1997-98) and a global electronics downturn (2001) in little more than half-a-decade. As a direct result of these two unforeseen detrimental economic events, the Singaporean government changed the emphasis it placed on MNEs from one of direct assistance through the Economic Development Board (EDB) and other agencies, to one centered firmly on diversification of the whole economy by attracting sectors and not specific MNEs. For example the government established a biotechnology hub at One North by providing the infrastructure and actively recruiting international research stars and their teams to the campus, and at the same time attracted wealth management services through legislation and taxation arrangements and advanced education-training via establishing Singapore Management University (SMU). The pro-business public governance mantra courting efficient and effective MNEs remained, but the government made it clear that it no longer would favour specific MNEs over others (Neo & Chen, 2007, p. 253).

Whilst the severity of the Asian financial crisis (1997-98) moved the Singaporean government to implement economic diversification, it was the 2001 global electronics recession in particular that caught the nation's policymakers by surprise. The severity of the economic decline and the negative politics of mass retrenchments in 'heartland' electorates resulted in the PAP government even greater concerted efforts into seeing their policies come to fruition. The extent to which the electronics downturn wrong footed Singapore's elite was reflected in the fact that the

annual budget of that year (February 2001) made no provisions for a downturn and as a result had to be adjusted. Koh (2006, p. 5) could well have applied the following statement on electronics to the whole economy:

The global slowdown in electronics demand and technology spending in the aftermath of the tech-bubble burst in April 2000, coupled with the negative impact of the September 11 event in 2001, had significantly affected the electronics manufacturing and IT services cluster in Singapore.

In particular, government leadership was surprised by the extent of the job losses. The very same foreign MNEs that senior government policymakers had actively courted and extended much policy good will and resources towards had quickly abandoned production in the city-state in the face of the global electronics downturn. Most electronic actors moved to China to take advantage of cheaper labour and infrastructure options (Crispin. 2009). It was a brutal lesson on the speed and mobility of a sector totally dependent on global supply chains attuned keenly to any fluctuation in market conditions. One learnt and most clearly expressed with the government's later complete policy back flip on the presence of casinos in Singapore, from previous adamant opposition from Lee Kuan Yew to current embracing advocacy by Lee Hsien Loong, for the simple reason that the casinos and their licenses cannot be sent off-shore.

The impact of the exodus must be viewed beyond the economic parameters, as the ruling PAP has always used its reputation for sound economic management to legitimize its monopoly on power. The resulting mass unemployment in the manufacturing and logistics heartlands of Jurong, Woodlands and Tampines caused a significant political loss of face for the ruling elite (Ang, et.al. 2000). In response, for the remainder of the decade, the Singaporean government utilised extensive national savings and government managed investment resources, (over \$S150 billion in the Government Investment Corporation alone) in an attempt to diversify the national economy; attracting MNEs and foreign talent at the frontiers of medical, scientific, engineering and creative industries. Singapore's elite, not surprisingly, has concluded that:

Diversification from electronics, in particular, will reduce the vulnerability to volatile tech cycles (Chua, 2007, p. 13).

The diversification policy and process between 2001 and 2007 was explicitly promoted by Singapore's policy elite as taking the national economy away from an over reliance on electronics and manufactures and towards internationally-oriented knowledge, service and creative sectors. In doing so, the policy's framers assured doubters that the move represented Singapore's best bet at avoiding future economic recessions generated by external economic shocks (Bhaskaran, 2009; Tan (a), 2009; Tan (b), 2009).

A central policy activity aimed at achieving the diversity reform agenda, led by the then deputy prime minister, since 2004 prime minister, Lee, centred on engaging MNEs in government

economic policy formation to a degree not witnessed elsewhere. Lee, the cabinet, and the government's agencies actively engaged the leadership of Singapore headquartered MNEs through a series of consultative committees which gave company executives direct input into policy prescription aimed at diversifying and expanding their current operations, as well as attracting new ventures to Singapore. Indeed, it is doubtful that MNE executives enjoy as much input into any other nation's policy framework as they have under Lee's stewardship in Singapore. Lee has moved away from his predecessors' efforts to attract selected MNEs, although this does still happen in instances such as the government outright courting of the Swiss-giant bank UBS, towards a focus on anchoring whole sectors into the economy. The courting of UBS being part of the far larger objective of diversifying Singapore financial sector into wealth management services to position Singapore as a viable alternative to Switzerland and other havens for the rich (Lim, 2009; Ngiam, 2006). A further emphasis of the Lee driven diversification policy review was to shift the nation toward an "aggressive pro-growth attitude" which achieved GDP growth averaging of 7.6 percent between 2004-2006, and 7.7 percent growth in 2007. Corporate tax rates were cut from 26 percent to 20 percent between 2001-2006. Jobs creation rose from -12,950 in 2003 to 71,400 in 2004 and 113,300 in 2005 and over 130,000 in 2006, whilst unemployment declined from 4.8 percent in September 2003 to 2.7 percent in 2006. Net manufacturing investment rose from S\$7.5 billion in 2003 to \$8.3 billion in 2004 and \$8.5 billion in 2005. The services sectors share of GDP rose from 61.2 percent in 2000 to 63.1 percent in 2005. The tourism sector, which declined from 6.1 percent of GDP to 3 percent of GDP in 2002, is now expected to rise to 5 percent in 2015 through massive state and private investments in two integrated resort casinos (Marina Bay Sands IR and Sentosa Island IR) which opened their doors in mid-2010 (Chua, 2007, pp. 7-16; MITI Singapore; MAS Singapore).

By 2007-08 the Singaporean economy was enjoying unprecedented levels of prosperity with Singapore's official foreign reserves amounted to \$187 billion by-year-end 2008. Confidence amongst analysts was high:

The economy is performing, the unemployment rate is at its lowest, and there are no major difficulties expected in the next few years (Singh, 2008, p. 327).

Koh (2006, p. 15) saw opportunities for Singapore to piggyback on regional growth for the foreseeable future:

Singapore's economy must stay nimble and continually evolve to meet the changing global competition. By plugging into the global economy, Singapore can tap opportunities from all over the world. In Asia, Singapore can ride on the regional economic growth, particularly of China and India, and develop new areas of excellence in sectors such as tourism, healthcare, education and financial services.

Yet within 12 months the Singaporean economy, far from riding on China's and India's success, would slow down dramatically on the back of the Wall Street financial debacle and a subsequent collapse in consumer demand in American and European markets. It would then enter its own full-blown economic recession in 2008-09 with wholesale retraction and unemployment.

The Singapore Recession of 2008-09: Reaching the Limits of Diversification Theory in Practice?

Singapore's \$248 billion economy scraped in a 1.1 percent growth for 2008, compared to 7.7 percent growth in 2007. It then shrank by 14 percent in the first quarter of 2009 (Bloomberg in The Australian. Various). What shocked most observers was the speed of the Singapore economy's downturn. Having grown 6.7 percent in the first quarter of 2008, it then fell off a cliff, plunging to -0.6 of GDP for the third quarter, and -3.7 percent in the fourth quarter (Chong, 2009, p. 291; Nicholas, 2008). For a nation which had growth rates of over 7 percent for the previous year Table 1 and Table 2 makes clear the dramatic nature of the economic decline. Multinational and domestic enterprises immediately began reengineering and enacting retrenchment as their export orders evaporated. Singapore's Creative Technologies Ltd, a large domestic technology firm often cited as a model of Singaporean enterprise and innovative potential, cut its workforce by 2700 in 2008 as international orders dried up.

Table 1 Goes Here

Table 2 Goes Here

Singapore policymakers and corporate leadership have a right to feel hard-done-by given that the origins of the 2008-09 recession as its causes occurred entirely off-shore. Nevertheless the Singapore economy's rapid decline in 2008, just as in 2001, has prompted questions regarding Singapore's policy of diversification. Even at the height of its mid-decade boom, some were alarmed at the country's high levels of exposure to global economic fluctuations:

With a broad lens one can begin to identify the signs of a maturing capitalist economy. Structural unemployment, the disappearance of low-skilled jobs, the economic marginalization of the old and less educated, and the widening income gap between the haves and the have nots, all suggest that the neo-capitalist processes are deeply embedded in the national economy and are, consequently, making the domestic workforce and industries vulnerable to the capricious forces of globalization (Chong, 2006. p. 269).

Prior to the GFC, policy makers had, at different times, made their concerns clear over the economy's considerable exposure to a U.S. economic downturn. Bhaskaran (2007, p.27) with

considerable insight stated; “If both business spending and consumer spending in the US go down, then we are in trouble”. This exact scenario was played out for Singapore. In the second-half of 2008, as Table 1 makes clear, Singapore slid into recession.

With no signs of economic recovery in early-2009, Prime Minister Lee Hsien Loong warned that Singapore would continue to suffer throughout 2009. He stated:

The recession is a global one, and we must expect to see exports and growth remain negative for more months, and perhaps for the whole year. (Asean Affairs, 2009)

He responded by introducing a \$S20.5 billion (\$US13.7 billion) stimulus package equivalent to 8 percent of Singapore’s GDP, within which his government included \$S5.8 billion to spur bank lending, \$S5.1 billion to help save jobs, \$S2.6 billion in tax measures and grants for business, \$S4.4 billion in infrastructure spending, and \$S2.6 billion for households. Most notably \$S4.9 billion of the package came from government reserves, the first time Singapore’s policy makers have ever resorted to such a measure. It could be argued that the amount is not significant when comparing it to Singapore’s massive foreign reserves (as previously stated \$S187 billion by-years-end 2008) and Government Investment Corporation (GIC) managed funds (in excess of \$S100 billion), but the symbolism was noted (Asia Wall Street Journal online various). Criticising the stimulus package, CIMB-GK economist Song Seng Wu expressed concern that it was “too focused in terms of targeting specific areas, rather than taking a helicopter approach to helping everyone in this kind of worst-case scenario of 5% contractions”.

(<http://onlinewsj.com/article/SB123265678165707363.html>)

Basu Das (2010) makes the assessment that the stimulus package was crucial in seeing Singapore drag itself out of a dramatic economic decline in the first half of 2009 (see Table 3), and return to growth in the second-half of 2009 and throughout 2010. It must also be noted that improving global economic conditions in the last-quarter of 2009 and into 2010 were equally crucial. What is beyond dispute is that Singapore’s position on public debt is one to be admired, particularly when compared with Europe’s Euro area and the United States of America. The absence of public debt will provide Singapore with significant future competitive advantages.

Table 3 Goes Here

Singapore, Diversification and Global Finance

Between 1990 and 2005 the value of Singapore’s securities market grew from \$US34 billion to \$US257 billion with a four-fold increase in the listings on the Singapore Stock Exchange (SGX). Further, by the end of 2006, the national savings regime, the Central Provident Fund (CPF), had a

total of \$S125.8 billion under management. By 2005, assets of major financial institutions were: commercial banks (\$S425 billion); merchant banks (\$S65 billion); and Asian Currency Units (\$US611 billion) (Tan and Sain, 2007, See Table 4 for asset growth pre-GFC as of 2006 and 2007, and Table 5 for shareholder equity growth pre-GFC). The national policy of financial internationalisation launched by the then finance minister, Lee Hsien Loong, as part of the whole-of-economy diversification plan post-Asian financial crisis (1997-98) appeared to be coming to full fruition (See Table 4 and Table 5). Singapore's position as a major Asian financial centre and significant global centre has not come about by market chance, with heavy state activism being central to success prior to and after the introduction of diversification as the central economic platform of the PAP government. Tan and Sain (2007) make this clear:

Unlike Hong Kong, Singapore developed as an international financial centre mainly through active government policies... One common policy that both governments share is the view that tight regulation and corporate governance are key elements that contribute to their status as international financial centres.

The state institutions at the heart of the government's management of the financial sector include the Monetary Authority of Singapore (MAS) - concerned with short-term changes in the money market and the stability the Singapore Dollar, and the Government Investment Corporation (GIC) - which manages long-term strategic state investments, both locally and internationally. Further, the government has promoted Singapore as a key niche player, offering private banking and wealth management expertise. To achieve this, it has actively imported foreign talent through a favourable visa and skilled migration scheme, along with a rapid expansion of financial engineering courses at local tertiary institutions. Singapore has also actively promoted itself as a clean, green, cultured and educated global city; the perfect location for a sophisticated banker; with family in tow (Koh & Mariano, 2006, Ghesquiere. 2007).

Table 4 Goes Here

Table 5 Goes Here

Once the financial crises began to spread beyond Wall Street, in the second-half of 2007 and deepened throughout 2008:

Singapore, closely tied to the global economy, could not escape the impact. Although local banks emerged largely unscathed because of limited exposure to the so-called 'toxic assets', segments of the financial service sector more sensitive to market trends were affected such as the trading stocks, shares and bonds, foreign exchange trading activities, and fund management activities. The local

stock-market index has dropped by over 40 percent from the peak of October 2007 (Chong, 2009, p. 292).

Having the world's highest levels of capital ratio saving, there was never any real concern as to Singapore's domestic banks ability to survive the GFC turmoil, although not without dramatic reductions in profitability and substantive staff reductions. The Developmental Bank of Singapore (DBS) for instance announced 900 job cuts in early January 2009; in a dramatic turn-around from only six months previously when it was openly recruiting. Even firm foundations, Singapore's government in January 2008 moved quickly to shore-up the country's reputation as a well governed and regulated financial entity by transferring responsibility for risk management strategy to the domestic banks by strictly applying and enforcing the new Basel Capital Accord from January 2008. Prior to March 2007 the MAS had actually lowered the tier one Capital Adequacy Ratio (CAR) for local banks from 7 percent to 6 percent while the total CAR requirement remained unchanged at 10 percent. The theoretical aim of these regulatory changes was to free capital for more efficient use in a diversifying national economy. As stated Singaporean banks were never in any real risk of default as they hold capital ratios well in excess of international requirements, but the governments swift implementation of the new Basel requirements showed its determination to cement the island states reputations as a banking and financial services haven. In the current atmosphere of global economic uncertainty, were inefficient capital use is once again proving to be the key factor in flagging systemic banking failure, makes the pre-GFC concerns of Western economist investment bankers regarding Singapore's 'excess capital' ownership look absurd. It was the magnitude of savings investment vehicles under the GIC and other government investment enterprises that cushioned the Singapore Exchange (SGX) from an otherwise far more severe GFC-derived downturn (Adam, 2009).

The Singapore government sought to utilise the GFC to gain greater stakes in key financial sector players as major U.S. and European banks sought capital injections throughout 2008 and 2009 at most favourable terms to the investor. In effect, the Singapore government was attempting to diversify and deepen its portfolio investments in global finance through distress buying. To internationalise the government investment portfolios and make them less weighted towards domestic state-owned, or state-linked, enterprises. Depending on who you believe it was either poor judgment, or a long-term strategic play that will pay dividends to the government for decades to come. In the short-term Temasek, the GIC, and other Singaporean investment groups took significant losses resulting from their investments in Western financial firms. Temasek suffered a \$US2.3 billion dollar short-term loss on its Merrill Lynch investment, or a 31 percent reduction in total assets from April to November 2008, leaving it with a then asset base of \$US127 billion. The GIC also experienced significant short-term reduction in assets due to poorly timed investments into

UBS and Citibank (Crispin, 2009). The government responded, stating that it is unconcerned by immediate losses as they were deemed long-term strategic investments, and that both Temasek Holdings and the GIC were more than capable of managing the short-term reductions in value (no one argued with the capacity position as GIC alone at the time held over \$US150 billion in its portfolio). Consequently, despite unprecedented public criticism of its diversify investment strategy during the GFC, the Singapore government is in a position to hold assets until an American or global recovery. In the wake of the GFC, the Singapore government-driven model of financial development, centred on extensive national saving and state regulatory control or outright ownership, has emerged successful (Basu Das 2010). Not through international state investment vehicle portfolio diversification which has only led to significant asset depreciation, but through the maintenance of long-held policy beliefs that the state must regulate banks and financial services effectively and that individual and national savings must be robust. This has been Singapore's lesson to the GFC world and indeed has been the case across East Asia which learnt lessons from the Asian financial crisis (1997-98) that the West simply did not heed and continues to pay for as the price of folly.

Government-Multinational Enterprise Diversity & Engagement Policy: A Fading Attraction?

Many multinationals, through extensive partnerships with Singapore government enterprises, have over the last decade, moved their operations to the island state and have focused on high-end activities, such as advanced electronics and design. In the two years, prior to the GFC, Singapore benefitted from expanding and diversifying MNEs manufacturing operations (as documented in Table 6 and Table 7). However, as GFC events reveal (see Table 8), this growth proved unsustainable. The country's over-reliance on electronics manufacturing has once again been exposed, for it makes up 37 percent of industrial production and large section of air cargo and logistics operations within Singapore (Bhaskaran, 2007; Adam, 2009). The 2008-09 GFC-derived recession and downturn was not unforeseen, with Ngiam Tong Dow, a respected policy maker and businessman, directing criticisms at Singapore's MNE diversification and engagement policy:

We have been flying on auto-pilot for too long. The MNCs have contributed a lot to Singapore but they are totally unsentimental people. The moment you're uncompetitive, they just relocate (Ngiam, 2006, p. 23).

Singapore, in the current climate is not alone in witnessing an outwards migration of MNEs, but as a state built on trade due to the absence of any domestic economic hinterland, it is particularly exposed and has again borne brunt of boardroom decisions made elsewhere. Key policy decisions, such as overruling significant public objections and moving ahead with the now highly successful development of the two integrated resorts (IR Sentosa Island and Marina Bay IR), and the courting

of private international wealth management firms (UBS and others), are the Singapore government's tacit acknowledgement that the island states current dependence on MNEs remains a structural weakness.

Table 6 Goes Here

Table 7 Goes Here

Table 8 Goes Here

Singapore has, for decades, succeeded at attracting MNEs, thereby creating a development template for aspiring city-states to emulate. To prevent a GFC-derived mass outwards migration of MNEs, Singapore's prime minister and cabinet throughout the economic downturn consistently declared their intention to keep international enterprises positioned in Singapore. Open declarations of assistance from the government were made to assure international direct investors that every policy effort would be made to assist MNEs to move their local operations up the value chain. As one observer notes; "at many levels, this is very much like the business outsourcing strategy that MNEs have adopted in decentralising production processes" (Singh, 2009, p. 24). Ngiam (2006: 194) explained that success of the government's diversification strategy depended upon its ability to convince MNE executives to stay put: "Knowledge is therefore the key to Singapore's future".

Future government support would only be provided to those MNEs which introduced new knowledge and innovation to their Singapore operations, whilst those who maintained current processes, would find only limited assistance forthcoming. The fact that this very policy process has taken place, not through considered planning between the Singapore policy elite and MNEs leadership over a number of years, but instead through the brutality of the GFC, meant that throughout 2008-2010 the intellectual debate (through online sources, blogs, notice boards and the like) about the future nature of the city's engagement with MNEs roared ahead of actual elite policymaking. The significance of this cannot be underestimated. Any reduction in Singapore's role as a platform for MNEs would undermine the legitimacy of the PAP governing elite who have invested so much political capital in their claimed ability to entice MNEs to locate core facilities on the island. Yet whilst it is too soon to identify any clear long-term policy changes, there can be no doubt that the intellectual debate concerning Singapore's policy engagement with MNEs has shifted as a direct consequence of the GFC. (The 2011 General and Presidential elections revealed that the PAP has suffered a decline in popularity over its management of the GFC-hit economy, but it is too soon to determine the permanency or otherwise of the electorates intent).

The GFC has exposed the limits of diversification strategy as a risk management tool. Scully (2009, p. 20) notes that:

The current global economic and financial crisis has exposed some weaknesses in Singapore's strategy of relying strongly on Foreign Direct Investment (FDIs). The multinational corporations (MNCs) appear to be good for the economy in an economic up cycle. In a down cycle, overseas investments are the first to be downsized and the capital returned to its home country. With the global economy in a long recession of maybe, one or two years, will growing protectionism affect Singapore's positioning as a regional hub? Would this make Singapore less attractive as a conduit into the region?

Such questions are encouraging the architects of Singapore's economic development to re-evaluating the fundamentals of the MNE diversification and engagement strategy as both a theoretical and practical initiative.

In an analysis that gained little attention before the GFC, a member of this policy circle, Singaporean MP and entrepreneur, Inderjit Singh (2009: 32-33), openly called for an end to the MNE engagement and diversification policy:

The MNC (multinational corporation) approach that has been the focus of Singapore's development should no longer be the driver of the economy as it will probably not be feasible for much longer. Developing countries with lower operating costs such as China and India will soon catch up by enhancing their core competencies, making Singapore less viable for many economic activities except for the service industries. Had we focused on the capacity-building of local enterprises, the government would have ensured that they keep moving up the value chain while they internationalise. Local companies will try to make things work and remain in Singapore for the long haul. I fear the time when multinational corporations (MNCs) will move out at a faster rate than we can bring newer ones in... As the net flow of MNCs is in an outwards direction, our local companies may not grow fast enough to keep the economy afloat or to create jobs to employ those retrenched by existing MNCs. We must step up our efforts to help local enterprises to become more competitive in a high-cost environment.

There can be no doubt that this approach would represent a major shift in Singaporean policy thought, not to mention practical policy making. Before the GFC, when growth was robust, calls for the abandonment of the MNE engagement policy garnered little attention. Indeed, engagement policy advocates stressed that Singapore's economy would have suffered, had they done so. The likely concerns such a call would generate amongst Singapore-based MNC executives could well be enough to convince them to move elsewhere.

Today in Singapore, the value of MNC policy engagement and diversification is under review. From a liberal economic standpoint, the actions of MNEs during the GFC in Singapore are to be expected. Yet for policymakers, the implications of the exodus had the potential to erode their

legitimacy as responsible economic managers. Further, the broad outward migration of MNCs to a developing and highly regulated China and away from developed and trade-liberal Singapore, is a lesson not missed by policy makers in developing economies (Saw & Low, 2009; Bhaskaran, 2009; Tan (a) 2009). In 2010-12, Singapore operates in a turbulent international environment. Not only has the GFC challenged its ruling elites economic intellectual assumptions, the U.S. and European models of economic progress continue to look fragile, whilst the long-term rise of China and India threatens to eclipse Singapore's long-held role as a centre of gravity for MNE regional locality. China and India provide Singapore with a level of international competition in 2010-12 and the coming decade/s that Singapore did not have to contend with previously. The statistics are stark. China attracted \$US50 billion in Foreign Direct Investment (FDI) in 2009, whilst India attracted \$US5 billion. Further, the rapid expansion of the World Trade Organisation (WTO), of which Singapore is an active member, has also meant that the global FDI environment is now more competitive than ever with China and India being joined by Brazil, Russia and South Africa as growing locations favoured by MNEs. For Singapore the GFC-derived MNC exodus has proved that the diversification and MNE engagement timetable for escalating innovative-scale is not of its choosing and that continuous pressures to succeed will be relentless.

Conclusion

Few question that Singapore is well governed, and in 2010 it quickly rebounded from the GFC. The real question arising from the GFC impact on Singapore throughout 2008-09, however, is how Singapore's embrace of diversity theory and policy practice can deliver economic ballast at times of global economic debacles whose origins lie offshore? Despite Singapore's sound public and financial governance, and the massive levels of diversification investment, Singapore's economy tumbled into recession from severe GFC economic contagion. The reaction to this failing saw unprecedented levels of public criticism leveled at the government.

Prior to the GFC recession a raft of former policy practitioners identified a need for Singapore to shift structurally to a creative knowledge-based economy (Ngiam 2006: 120) in which the key performance indicator will be the quality, and not quantity, of economic growth (Bhaskaran, 2007: 43). That the mere presence of MNE did not signal success, as others could, and were, moving to provide these enterprises with the infrastructure and financial foundations they needed, of course with domestic markets that Singapore cannot match (Tan, 2009, p. 70). All of these structural questions hit Singapore at once with the onset of the GFC and Singapore quick ascent into

economic recession. The transformation into a more diverse and creative economy, however, takes time. There is also no assurance that even if successful, it will be enough to prevent further economic downturns. Perhaps most significantly though, the GFC has revealed that knowledge and economic diversification within modern economies, particularly within the international banking and financial sectors, can itself be a massive generator of risk.

The political impact of the GFC continues. For the simple fact is that just as Singaporean policymakers have actively praised the process of economic globalisation, they have been forced to confront the fact that these very forces come at a high cost to national economic sovereignty. This leads to a series of uncomfortable questions for a one party state whose rule depends entirely upon economic management credentials (just as it has across Europe and the U.S. where ruling leaders and parties have been disposed of by their electorates with fierce regularity since 2007) . How does a ruling party, the People's Action Party, one that has ruled Singapore uninterrupted since 1959, maintain political dominance when it is increasingly clear that the *uber*-globalised economy it has created is beyond its full control? How does this affect the PAP elites ability to sell to the Singapore public the idea that foreign-MNE, who proved themselves so willing to exit or remove employment from the island state during the GFC, should continue to be the beneficiaries of continued substantial government assistance? How does it continue in the second decade of the 2000s to convince an electorate exposed to the full force of a GFC recession that the current economic diversity policy, with billions in public funds having already been spend in the first decade and more to come in locating MNEs on the island nation, is money well spent? Previously challenged by only a few policy specialist, post-GFC the diversification policy of the PAP is now fully in the glare of public option.

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Non-oil exports (electronics and pharmaceuticals worst affected)	-8.5 percent total -11.4 percent manufacturing
Tourism visitor numbers	-6 percent
Retail trade (motor vehicles excluded)	2.5 percent (compared to 8 percent in 2007)
Employment	Over 2000 retrenchments with most in manufacturing and finance. The Development Bank of Singapore cuts 900 staff.
Quarter growth rate	-0.6 percent
Chong, Terence. 2009.	

Total	1.1
Goods Producing Industries	-1.0
Manufacturing	-4.1
Construction	20.3
Service Producing Industries	4.7
Wholesale & Retail Trade	2.6
Transport & Storage	3.1
Hotels and Restaurants	1.2
Information & Communications	7.2
Financial Services	5.5
Business Services	7.4
Ministry of Trade and Industry, Singapore, www.miti.gov.sg	

Table 3: Singapore's 2009 Progressive Economic Performance	
1 st Quarter	-9.4 percent
2 nd Quarter	3.2 percent
3 rd Quarter	0.9 percent
4 th Quarter	3.5
Source: Ministry of Trade and Industry, Singapore, www.miti.gov.sg	

Table 4: Assets in Financial Services (Stock as at end period)				
	2006 (\$ bil)	2007 (\$ bil)	Change (%)	Share in 2007 (%)
Financial Services	2,410.3	2,933.0	21.7	100.0
Investment Holding	723.5	917.7	26.9	31.3
Banks	1,477.3	1,776.2	20.2	60.6
Insurance Services	113.8	127.8	12.3	4.4
Singapore's Corporate Sector. 2007. November 2009. Singapore Department of Statistics.				

Table 5: Shareholders' Equity in Financial Services				
	2006 (\$ bil)	2007 (\$ bil)	Change (%)	Share in 2007 (%)
Financial Services	456.1	604.4	32.5	100
Investment Holding	371.0	507.2	36.7	83.9
Banks	55.1	60.2	9.3	10.0
Insurance Services	10.6	12.2	15.1	2.0
Singapore's Corporate Sector. 2007. November 2009. Singapore Department of Statistics.				

Table 6: Shareholders' Equity in Manufacturing (stock as at end period)				
	2006 (\$ bil)	2007 (\$ bil)	Change (%)	Share in 2007 (%)
Manufacturing	126.0	131.4	4.3	100.0
Pharmaceutical Products	34.9	43.6	25.1	33.2
Electronic Products	37.3	32.0	-14.4	24.3
Petroleum Products	11.3	11.4	1.0	8.6
Chemical Products	10.6	10.5	-1.0	8.0
Machinery & Equipment	9.4	9.5	1.3	7.2
Transport Equipment	7.0	7.9	12.4	6.0
Singapore's Corporate Sector. 2007. November 2009. Singapore Department of Statistics.				

Table 7: Assets in Manufacturing (stock as at end period)				
	2006 (\$ bil)	2007 (\$ bil)	Change (%)	Share in 2007 (%)
Manufacturing	261.0	266.5	2.1	100.0
Pharmaceutical Products	49.6	52.3	5.4	19.6
Electronic Products	80.5	73.4	-8.9	27.5
Petroleum Products	24.3	26.9	10.9	10.1
Chemical Products	20.8	20.5	-1.1	7.7
Machinery & Equipment	26.5	29.4	10.7	11.0
Transport Equipment	20.1	27.1	35.0	10.2
Singapore's Corporate Sector. 2007. November 2009. Singapore Department of Statistics.				

Table 8: Most Affected Economic Sectors in the Singapore Recession of 2008-09					
	3Q08	4Q08	1Q09	2Q09	3Q09
Manufacturing	-11.0	-10.7	-24.2	-1.1	6.6
Wholesale & Retail Trade	4.5	-5.3	-14.8	-13.8	-8.8
Hotels & Restaurants	0.0	-0.1	-5.5	-5.9	-2.5
Financial Services	5.6	-8.1	-7.6	-4.5	-0.2
Unemployment*	2.3	2.5	3.3	3.3	3.4
Visitor Arrivals# (y-o-y%)	-4.5	-7.7	-13.6	-9.3	0.2
Total Trade (y-o-y%)	16.4	-9.6	-27.7	-26.9	-21.4
<p>*The unemployment increase is a significant underestimation of the number of retrenchments to the labor force as the sectors most affected all have a very high reliance on foreign labour. For example, to gain a full appreciation of retrenchment in the Singapore electronics sector one would have to examine the rising level of unemployment in the Malaysian state of Johor since this is the principle sources of labor for Singapore's Jurong Industrial Estate.</p> <p># It is simply not possible to overestimate the central importance of Visitor Arrivals to the Singapore economy. Singapore Airlines Inc. and Changi Airport Inc. are absolutely crucial to the health of the broader Singapore economy.</p>					
Ministry of Trade and Industry, Singapore, www.miti.gov.sg					