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March 31, 2014

VIA OVERNIGHT MAIL DELIVERY

RECEIVED

Ms. Rosemary Chiavetta, Secretary
Pennsylvania Public Utility Commission
Commonwealth Keystone Building
400 North Street
Harrisburg, Pennsylvania 17120-0200

MAR 31 2014

PA PUBLIC UTILITY COMMISSION
SECRETARY'S BUREAU

Re: Duquesne Light Company Certificate of Public Convenience to Transfer the
Interests and Shares in DQE Holdings LLC to Epsom Investment Pte Ltd,
Docket Nos. A-2010-2213369 and A-2011-2221461

Dear Secretary Chiavetta:

Enclosed is Duquesne Light Company's Annual Report on the status of its Duet Sale-Epsom
Purchase Commitments in connection with the above-referenced cases.

If you have any questions regarding the information provided, please contact me.

Sincerely,

Vernon J. Edwards
Manager, Regulatory Affairs

Enclosures

c: Ms. Tanya McCloskey – Office of Consumer Advocate
Mr. Johnnie Sims – Bureau of Investigations and Enforcement
Mr. John Evans – Office of Small Business Advocate



**ANNUAL REPORT ON
EPSOM INVESTMENT/GIC INFRA HOLDINGS
PURCHASE COMMITMENTS
TO THE PENNSYLVANIA PUBLIC UTILITY COMMISSION**

DOCKET NO. A-2010-2213369

DOCKET NO. A-2011-2221461

RECEIVED

MAR 31 2014

**PA PUBLIC UTILITY COMMISSION
SECRETARY'S BUREAU**

FILED MARCH 31, 2014

Joint Application for All of the Authority and the	:	
Necessary Certificate(s) of Public Convenience to	:	
Transfer the Interests and Shares in DQE Holdings	:	Docket No. A-2010-2213369
LLC, currently owned by DUET Investment	:	
Holdings Limited, to Epsom Investment Pte Ltd, a	:	
subsidiary of GIC Infra Holdings Pte Ltd, and to	:	
Approve the Resulting Change in Control of	:	Docket No. A-2011-2221461
Duquesne Light Company and DQE	:	
Communications Network Services LLC	:	

Duquesne Light Company's Annual Report on Duet Sale-Epsom Purchase Commitments

As part of the Joint Petition for Approval of Settlement of All Issues entered into by the parties in the above referenced cases and approved by the Pennsylvania Public Utility Commission by order dated August 11, 2011, Duquesne Light Company ("DLC" or "Duquesne") agreed to provide an annual report on the status of its Duet sale-Epsom purchase commitments. Below are those commitments and their status.

Rate Issues

Commitment: Joint Petitioners agree that all aspects of the acquisition premium and transaction costs, including third party consultants, financial advisory services and due diligence costs as set forth in the response to OCA Set 111-21, including all related tax effects, will be excluded from future distribution and transmission rates.

2014 Status: DLC has not claimed any acquisition premium transaction costs in distribution or transmission rates.

Commitment: No expenses or costs associated with the Epsom purchase from DUET are eligible for inclusion in Duquesne's cost of service or any customer rates (including transmission service rates). This includes any acquisition premium. Joint Applicants aver that the proposed transaction will have no accounting or tax effects on Duquesne.

2014 Status: DLC has not claimed any expenses, costs, or acquisition premium in distribution or transmission rates. There has been no accounting or tax effects on Duquesne as a result of the Epsom purchase.

Commitment: Section B(3) of the 2007 Merger Settlement approved by the Merger Order pertaining to recovery of any cost of capital premium caused by the Merger is affirmed and extended two years (from five years to seven years from the Merger closing, May 31, 2007).

Section B(3a) of the 2007 Merger Settlement states that Duquesne shall not request a capital structure for ratemaking purposes which is outside of a reasonable range of that used by comparable companies. In any future base rate proceeding, Duquesne must demonstrate that its claimed common equity ratio is reasonable and in the best interests of its customers.

2014 Status: DLC has complied with this commitment.

Commitment: Also reinstated from the 2007 Merger Settlement (Section B3b), DLC will not claim an increase in the cost of capital due to any downgrading of Duquesne debt as a direct result of the Merger or the acquisition of DUET's interests by GIC for a seven-year period after closing (May 31, 2007) through May 31, 2014.

2014 Status: DLC has not claimed any increase in cost of capital as a result of the Merger or acquisition.

Corporate Cost Allocations

Commitment: DLC's corporate cost allocations will include a rent charge for the percentage of space occupied by employees who provide services to an affiliate and a supplies charge for supplies the employee may use in providing services to affiliates.

2014 Status: DLC remains in compliance with this commitment.

Commitment: DLC's corporate cost allocations will provide that all costs incurred by DLH including any costs allocated from DLC to DLH, will be allocated, to the extent appropriate, to other DLC affiliates.

2014 Status: DLC remains in compliance with this commitment.

Commitment: DLC's corporate cost allocations will include appropriate charges to all affiliates for costs incurred on their behalf by DLH for letters of credit and securities and will allocate appropriate charges associated with the DLH revolving credit agreement.

2014 Status: DLC remains in compliance with this commitment.

Corporate Structure and Ring Fencing Protections

Commitment: From and after the effective date of this Settlement, DLC shall not: (1) guarantee the debt or credit instruments of DLH or any affiliate not regulated by the Commission, except as approved by the Commission upon a determination that such guarantee provides net benefits to customers; (2) grant a mortgage or other lien on any property used and useful by DLC in providing retail utility service to the public subject to the Commission's jurisdiction, except for the financing needs of DLC; or (3) make any loan or otherwise extend credit to DLH or any

affiliate not regulated by the Commission for a term of one year or more, except as approved by the Commission upon a determination that such loan or credit extension provides net benefits to customers.

2014 Status: DLC remains in compliance with this commitment.

Commitment: DQE Holdings will not permit a change in ownership among the members of DQE Holdings without prior Commission approval if such change would result in a change in control under the then-applicable Commission standards.

2014 Status: DLC remains in compliance with this commitment.

Commitment: DLC will seek Commission approval of all new or amended agreements with affiliates consistent with Chapter 21 of the Public Utility Code.

2014 Status: DLC remains in compliance with this commitment.

Commitment: DLC shall provide the OTS, OCA and OSBA with a copy of its annual reports filed with the Securities and Exchange Commission.

2014 Status: DLC has maintained its compliance within this commitment. No reports have been filed with the Securities and Exchange Commission.

Commitment: DLC agrees to continue to have outstanding separately issued debt held by investors not affiliated with DLC or its affiliates, unless the Commission authorizes to the contrary.

2014 Status: DLC remains in compliance with this commitment.

Commitment: DLH and its subsidiaries, including Duquesne, will provide, upon request, to OTS, OCA and OSBA access in connection with rate proceedings and other proceedings before the Commission, where relevant, to presentations given by DLH and its subsidiaries to common stock, bond, or rating analysts. Such material will be accorded confidential treatment.

2014 Status: DLC remains in compliance with this commitment.

Commitment: DLC's long-term debt ratio as a percent of total capitalization shall not exceed 60% absent approval from the Commission. Any request for approval will be considered on an expedited basis, if so requested.

2014 Status: DLC remains in compliance with this commitment. Duquesne's long-term debt ratio was 41.1% at the end of 2013.

Commitment: DLC shall notify the Commission of its intention to declare a special cash dividend to DLH, at least 30 days before declaring the dividend.

2014 Status: DLC remains in compliance with this commitment. No special cash dividends were declared.

Commitment: The CEO of DLH will be a member of the board of DQE Holdings, and will also chair a management committee, which will contain representatives of both the senior management team and the Macquarie Consortium.

2014 Status: Richard Riazzi, President and Chief Executive Officer of Duquesne Light Holdings, Inc. is a member of the Board of Directors of DQE Holdings, LLC. In addition, Mr. Riazzi serves as the Chair of the Asset Management Committee, which consists of both members of the senior management team and the Owners.

Commitment: DLH shall maintain, and cause its subsidiaries including Duquesne to maintain, separate books and financial records.

2014 Status: DLC remains in compliance with this commitment.

Commitment: DQE Holdings will maintain corporate organizational and financial policies sufficient to permit Duquesne to continue to meet requirements to maintain its own credit ratings, separate from its parent.

2014 Status: DLC remains in compliance with this commitment.

Commitment: Upon request from the Commission, Duquesne shall supply copies of information that it has submitted to credit rating agencies.

2014 Status: DLC remains in compliance with this commitment.

Commitment: Unless the Commission grants approval to the contrary, for a period of three years from the closing with regard to sale of DUET's interests to Epsom, Duquesne shall not make a dividend payment to its parent if doing so causes its debt ratio as a percentage of total capitalization, as defined in Duquesne's current bank credit agreement, to exceed 60 percent, or if its debt ratio as so defined at the time of dividend declaration or payment exceeds 60 percent.

2014 Status: DLC remains in compliance with this commitment. Duquesne's long-term debt ratio was 41.1% at the end of 2013.

Commitment: DLH and its subsidiaries shall remain organized in a manner that provides corporate separation of regulated and non-regulated activities.

2014 Status: DLC remains in compliance with this commitment.

Commitment: The Applicants agree that they will continue to comply with Section 1102(a)(3) of the Public Utility Code requiring the approval of changes in control, as interpreted by the Commission's Policy Statement-Utility Stock Transfer under 66 Pa.C.S. § 1102(a)(3). Epsom agrees that it will not increase its voting interest in DQE Holdings beyond the 28.95% approved by the Commission in this proceeding unless Epsom obtains the Commission's approval of an acquisition increasing that voting interest or a determination by the Commission that approval is not required. Any acquisition of a voting interest in DQE Holdings by any parent or affiliate of Epsom shall be counted in applying the provisions of this condition.

2014 Status: DLC remains in compliance with this commitment.

Commitment: Epsom agrees to tender to DQE Holdings, for redemption, the Promissory Note (the "Promissory Note") from DQE Holdings to DUET3, which will be acquired by Epsom at closing, no later than 30 days after the closing. Duquesne confirms that (i) pursuant to a Transaction Agreement dated December 9, 2009, to which DQE Holdings and each of its Members is a party, all the Promissory Notes will be tendered to DQE Holdings within thirty (30) calendar days of the closing and the tender by Epsom, and (ii) upon tender, DQE Holdings will redeem all of the Promissory Notes and the proceeds of such redemptions will simultaneously be reinvested in DQE Holdings as equity capital contributions with no change in the voting interests of the Members of DQE Holdings.

2014 Status: Not Applicable. The redemption of the Promissory Note was completed in September 2011.

Reliability and Customer Service

Commitment: DLC will maintain operating locations and field offices in its territory, and staffing levels, as appropriate, to provide safe and reliable service, consistent with good utility practices.

2014 Status: DLC remains in compliance with this commitment.

Commitment: DLC agrees to the following Quality of Service Plan during the period from January 1, 2012 through December 31, 2013, or if later, until the Commission order is entered in Duquesne's next base rate case. The Service Plan establishes the following metrics and reporting requirements to allow for the monitoring of the quality of service provided by DLC and to identify any significant changes to DLC's reliability and service levels. A report will be provided to the Commission, OCA, OTS (Bureau of Investigations and Enforcement) and OSBA on these metrics.

Quality of Service Plan		
Performance Area Index	Metrics Goals	Metrics Achieved 2013
Reliability		
SAIFI (12 Month)	1.17	0.62
CAIDI (12 Month)	108	121
Customer Service		
The percent calls answered within 30 seconds.	77% (for 2012) 78% (for 2013)	80%
The average busy out rate.	0.3%	0.06%
The average call abandonment rate.	4%	3%
Percent of residential bills not rendered once every billing cycle.	0.01%	0%

2014 Status: The above table provides the Quality of Service Plan Metrics achieved for the calendar year 2013.

Commitment: DLC will also include in its report its performance in the areas shown below and provide a report each year to the Commission, OCA, OTS (Bureau of Investigations and Enforcement) and OSBA.

Performance Report – Residential Customers

Measure	Metrics Achieved 2013
Number of Customer Disputes Not Issued a Report Within 30 Days	28
Termination Rate (Terminations per 1000 Residential Customers)	48.69
Justified Payment Arrangement Request Rate ¹	4
Justified Consumer Complaint Rate ¹	16

2014 Status: The above table provides the 2013 performance measures for each of the areas listed.

Commitment: DLC agrees that, in any year during the effective period of the Service Plan, if its reliability or service levels are not equal to or better than the reporting metrics set forth in the Service Plan, DLC will provide the Commission, OCA, OTS and OSBA with a report that will identify the reasons for the variance and identify any management actions that DLC intends to undertake in response to any variation. DLC will then convene a collaborative with OCA, OTS and the OSBA to discuss such report. The Commission may, upon motion of any Party or upon its own motion, open a formal proceeding concerning reliability or service.

¹ These performance metrics reported by the Pa. PUC BCS in the “Quarterly Update to UCARE Report January-September 2013”

2014 Status: Attached to this report, as Attachment #1 is the “Duquesne Light Company Report on Operation Reliability Metrics, SAIFI and CAIDI”, which fulfils the commitment to report on reliability or service levels not equal to or better than the reported metrics set forth in the Service Plan. Duquesne Light Company will contact the OCA, OTS (I&E) and OSBA within 30 days of the date of this report to discuss convening a collaborative to discuss the “Duquesne Light Company Report on Operation Reliability Metrics, SAIFI and CAIDI” report.

Reporting and Access to Books and Records

Commitment: Upon written request, DLC and its subsidiaries will provide the Commission, the OTS, the OCA and the OSBA reasonable access to the books and records, officials and staff of DLH and its subsidiaries in Pittsburgh, Pennsylvania.

2014 Status: DLC remains in compliance with this commitment.

Commitment: Annual reporting covering 2012 and 2013 is reinstated and will end on March 31, 2014. DLC will provide an annual report to the Commission as to the status of all commitments made in this Settlement. DLC will provide the Commission and the Parties GIC’s most recent published report on the Management of the Government’s Portfolio until such time as the Commission grants approval to the contrary.

2014 Status: This Report constitutes the annual reporting. Attachment #2 is GIC’s most recently published report.

Low Income Programs

Commitment: DLC will continue to fund its Customer Assistance Program (CAP) consistent with its needs analysis.

2014 Status: DLC will continue to fund its Customer Assistance Program (CAP) consistent with its needs analysis.

Commitment: DLC will agree not to transfer LIURP funds collected during the period 2012 through 2013 to other universal service programs.

2014 Status: DLC remains in compliance with this commitment.

Commitment: DLC agrees that it will make all reasonable efforts to expend LIURP funding available each calendar year. Subject to any necessary approval by the BCS, DLC will agree to raise the income eligibility needs to 200% of the federal poverty level, and/or expand outreach efforts, and/or increase the numbers of customers served. DLC will advise the universal service collaborative of the status of LIURP expenditures on a quarterly basis during the period 2012 through 2013.

2014 Status: DLC has maintained its compliance with the requirement. DLC expended all budgeted LIURP funding available for calendar year 2013. Organizations that participated in the

Universal Services collaborative were advised of the status of the LIURP expenditures on April 15, 2013 (1Q expenditures), July 24, 2013 (2Q expenditures), November 5, 2013 (3Q expenditures) and January 22, 2014 (2013 annual expenditures).

Community Commitment

Commitment: DQE Holdings and the Macquarie Consortium, and its investors, will continue to maintain DLC's corporate headquarters in Pittsburgh, Pennsylvania. All the corporate functions will be performed and maintained at such headquarters so that DLC and its management team will continue to be locally based. DQE Holdings agrees not to move DLC's headquarters outside DLC's service territory without advance approval of the Commission.

2014 Status: DLC's corporate headquarters remains in Pittsburgh, its corporate functions continue in these headquarters, and the management team is locally based.

Commitment: DLC agrees that it will continue to provide corporate contributions and community support in southwestern Pennsylvania at levels substantially comparable to levels provided by the Company in 2006 (for 2006 that is approximately \$2.9 million) through May 31, 2014.

2014 Status: This commitment is measured on a twelve month basis ending on May 31st and Duquesne Light Company will provide contributions and community support that are substantially comparable to the \$2.9 million level during the current period.

Commitment: For a period of 5 years, Duquesne will match customer contributions to the Dollar Energy Fund with Shareholder dollars up to \$375,000. This was extended for two years beyond the originally agreed-upon five years, for a total of seven years from the merger closing (May 31, 2007). For this revised period, DLC will contribute \$375,000 annually to the Dollar Energy Fund and attempt to obtain customer matching contributions equal to that amount.

2014 Status: This commitment is measured on a twelve month basis ending May 31st and Duquesne Light Company will contribute \$375,000 to the Dollar Energy Fund during the current period.

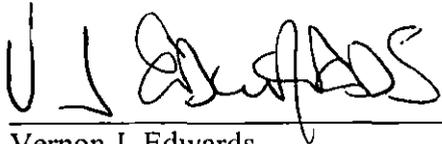
Conclusion

This report fulfils Duquesne Light Company's requirement to provide an annual report to the Commission as to the status of all commitments made in the Epsom Investment/GIC Infra Holdings Purchase settlement.

Dated this 31st day of March, 2014.

Respectfully Submitted,

Duquesne Light Company



Vernon J. Edwards
411 Seventh Avenue
Pittsburgh, PA 15219
412-393-3662

Attachments

Attachment #1

**Duquesne Light Company Report on
2013 Reliability Metrics (SAIFI, CAIDI)**

Duquesne Light Company

Report on 2013 Reliability Metrics

(SAIFI, CAIDI)

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Introduction

In Section “D” (Reliability and Customer Service) of the approved settlement of the Duet Investment sale-Epsom Investment purchase agreement, Duquesne Light Company (“Duquesne Light” or the “Company”) agreed to a quality of service plan, as further provided therein, which established the following Reliability and Customer Service Metrics.

Quality of Service Plan		
Performance Area Index	Metrics Goals	Metrics Achieved (2013 Results)
Reliability		
SAIFI (12Month)	1.17	0.62
CAIDI (12 Month)	108	121
Customer Service		
The percent calls answered within 30 seconds.	77% (for 2012)	
	78% (for 2013)	80%
The average busy out rate.	0.30%	0.06%
The average call abandonment rate	4.00%	3.0%
Percent of residential bills not rendered once every billing cycle	0.01%	0%

The Company is to provide a report to the Commission, OCA, OSBA and OTS (now I&E) if any of these service levels are not equal to or better than the reporting metrics set forth in the Service Plan.

During 2013, Duquesne Light’s service levels were equal to or better than the Service Plan Metrics except for the CAIDI Reliability Measure. This Report presents Duquesne Light’s analysis of the Reliability Metrics and provides variance explanations pursuant to the Duet Investment sale-Epsom Investment purchase agreement.

The following is a review of SAIFI, SAIDI and CAIDI definitions and Duquesne Light’s 2013 performance for each of those reliability metrics.

SAIFI, SAIDI & CAIDI Analysis

SYSTEM AVERAGE INTERRUPTION FREQUENCY INDEX (SAIFI) *Lower is Better*

What does it Measure: The average number of outages experienced by Customers during a year.

The System Average Interruption Frequency Index (SAIFI) indicates the average number of times that a typical customer experienced an outage over a period of time, typically a year. SAIFI is calculated by summing all customers that were interrupted by outages and dividing the sum by the total number of customers served. Customers that had multiple outages get added into the numerator multiple times to account for every outage. The denominator is the total number of customers on our system. Duquesne Light uses KVA (average load of a customer) rather than customers to calculate SAIFI. SAIFI is unit-less and represents the average number of outages that a typical customer experienced over the measurement period. When analyzing or comparing SAIFI results, a lower number represents a better result. Values that are less than one indicate that not all customers experienced an outage during the measurement period.

$$\text{SAIFI} = \frac{\Sigma \text{Customers Interrupted}}{\text{Total Customers}} = \frac{\Sigma \text{KVA Interrupted}}{\text{System KVA}} = \text{Interruptions per Customer}$$

SAIFI Results for the year 2013 - Duquesne Light had a SAIFI Target of 1.17 and it achieved a SAIFI Result of 0.62 meaning that on a system-wide basis 38% of Duquesne Light's customers experienced no outages at all during 2013. This is the best SAIFI result obtained by Duquesne Light in the last 19 years, as far back as our current Outage Reporting System goes.

SYSTEM AVERAGE INTERRUPTION DURATION INDEX (SAIDI) *Lower is Better*

What does it Measure: The average number of minutes of service interruption that a typical customer experiences during a year.

The System Average Interruption Duration Index indicates the total duration of an outage for an average customer during a given time period. SAIDI is calculated by summing all customer-minutes of outage time during the measurement period and dividing this sum by the total number of customers. Duquesne Light uses KVA rather than customers to calculate SAIDI based on available technology. SAIDI indicates the Outage Duration Time that an average customer saw during the measurement period. When analyzing or comparing SAIDI results, a lower number represents a better result.

$$\text{SAIDI} = \frac{\Sigma \text{Customer Outage Minutes}}{\text{Total Customers}} = \frac{\Sigma \text{KVA-Minutes Interrupted}}{\text{System KVA}} = \text{Length of an Outage that an Average Customer Sees}$$

SAIDI Results for the year 2013 - Duquesne Light had a SAIDI Target of 126 and it achieved a SAIDI Result of 75, meaning that the average Duquesne Light customer had an outage of only 75 minutes in duration which was considerably better than the 126 minute target for 2013. This is the best SAIDI result obtained by Duquesne Light in the last 19 years.

CUSTOMER AVERAGE INTERRUPTION DURATION INDEX (CAIDI) Lower is Better

What does it Measure: The average duration of an outage in minutes for customers that experienced an outage during a given time period, usually a year.

The Customer Average Interruption Duration Index indicates the average duration of outages for those customers that had an outage over a given time period, typically a year. CAIDI is calculated by dividing SAIDI by SAIFI.

CAIDI = SAIDI/SAIFI = Average Length of a Customer Outage among Customers that had an Outage

CAIDI Results for year 2013 – Duquesne Light had a CAIDI Target of 108 and it achieved a CAIDI Result of 121, meaning that a Duquesne Light customer that had an outage in 2013 had an outage of 121 minutes in duration on average. This was 13 minutes longer than the 108 minute target. However, this result is somewhat misleading when not viewed in conjunction with SAIFI and SAIDI results because in isolation, it represents only customers who experienced a recordable outage. In 2013, the average number of customers, on a system-wide basis, that did not experience an outage was 38%. For years prior, the average number of customers not experiencing an outage, on a system-wide basis, was 33% in 2012, 7% in 2011, 0% in 2010 and 3% in 2009. This trend is mostly driven by new technologies that Duquesne Light has implemented on its distribution circuits which are described below. In fact, for 2013, 44% of all customer outages were restored within 5 minutes making them momentary interruptions only. This has significantly changed the balance between short and long outages, and as explained in more detail below, drives the average length of an outage higher even though a significant percentage of our customers never experience an interruption, and for those customers that do experience a service interruption, outage restoration times are becoming shorter.

How do SAIFI, SAIDI and CAIDI Interact? Sometimes improvements made to SAIFI & SAIDI can have a negative impact on CAIDI

CAIDI represents the relationship between outage frequency and duration. However, this is not a linear function. Outages reduced to five minutes or less in duration by distribution operator remote switching are considered momentary operations only and are not recordable outages, so these outages drop out of the CAIDI calculation without reducing average outage time. This gives more weight to the remaining longer outages that are manually restored, resulting in a higher CAIDI result.

Duquesne Light's success in reducing outage duration can be seen in the steady decline in SAIDI over the last three years.

2011 SAIDI = 99 Minutes	
2012 SAIDI = 79 Minutes	20% Improvement
2013 SAIDI = 75 Minutes	5% Improvement

Analysis of the outages during these three years shows that Duquesne Light has reduced outage duration for all outages both short and long. However, Duquesne Light has been especially successful in reducing short outages which has resulted in an increase in the percentage of customer outages restored in five minutes or less.

Customer Outages Restored in 5 Minutes or Less

2010 = 10%
 2011 = 31%
 2012 = 45%
 2013 = 44%

This increase in the number of customers restored in five minutes or less has directly helped to reduce the total number of customer outages which has steadily improved SAIFI performance since 2010.

2010 SAIFI = 1.09
 2011 SAIFI = 0.93 *15% Improvement*
 2012 SAIFI = 0.67 *30% Improvement*
 2013 SAIFI = 0.62 *7.5% Improvement*

However, this reduction in the number of SAIFI outages has not reduced customer outage-minutes to an equivalent extent because these outages were only six to ten minutes in duration previously.

So with all the success in improving SAIFI and SAIDI in 2011 through 2013, why is CAIDI getting worse? This is a result of decreasing outages that were six to ten minutes long resulting in an increase in customer outages restored in five minutes or less. Since these outages are now considered only momentary operations, this has significantly reduced SAIFI without as big of a reduction in SAIDI because these were previously outages of only six to ten minutes in duration. This has increased the ratio between long outages and short outages. This causes SAIFI to get smaller than SAIDI and since CAIDI equals SAIDI divided by SAIFI, CAIDI increases.

2009 CAIDI = 85 Minutes
 2010 CAIDI = 80 Minutes
 2011 CAIDI = 107 Minutes
 2012 CAIDI = 117 Minutes
 2013 CAIDI = 121 Minutes

5 Year Reliability History Summary

The following table summarizes Duquesne Light's past five year reliability history including the number of customer outages that were restored in five minutes or less.

Yearly Reliability Results				Customer Outages		Customer Outages Restored in 5 Minutes or Less	
Year	SAIDI	SAIFI	CAIDI	Customer Outages	Cust. Outage Minutes	Customer Outages	%
2009	82	0.97	85	559,690	47,410,962	56,529	10%
2010	87	1.09	80	626,503	50,116,949	63,277	10%
2011	99	0.93	107	537,097	57,405,605	165,963	31%
2012	79	0.67	117	392,664	45,911,625	176,306	45%
2013	75	0.62	121	363,360	43,961,368	158,061	44%

How has Duquesne Light increased Five Minute Restorations?

In 2013, Duquesne Light had 11.5% fewer recordable customer outages than in 2012, 33% fewer outages than in 2011, and 43% fewer outages than in 2010. Much of this is being driven directly by Duquesne Light's ability to restore customers in five minutes or less. In the past many of these outages may have exceeded 5 minutes in length as evidenced by the 44% of customers being restored in five minutes or less for 2013 in the above chart. This represents a 34% improvement from the 2009 performance. This improvement now converts what in the past were short outages of +five to ten minutes in duration to momentary interruptions only. How was this accomplished?

In 2010, Duquesne Light modernized its distribution circuit feeders by replacing over 600 3-phase automated protection devices with newer, state-of-the-art advanced circuit reclosers. With their improved fault protection technologies and faster remote communication capabilities, Duquesne Light operations center supervisors can now respond faster to circuit problems. These operators can remotely isolate faults to a relatively small section of a feeder and quickly switch affected customers over to an alternate circuit. This minimizes the number of customers affected by an actual circuit problem to a relatively small area and allows distribution center supervisors to focus on quickly restoring the rest of the customers by remotely closing normally open ties to adjacent circuits.

All of this has been accomplished through a long-term commitment to restore customers in a safe and timely manner. In the 1960's and 1970's, restoration of service was accomplished by sending a troubleshooter or line crew out to the circuit in the field to manually switch customers around to other circuits. This generally restored most customers within an hour or two. In the 1980's through 2010, Duquesne Light used automated distribution sectionalizers and reclosers to remotely reroute power around circuit problems to customers much more quickly, with many restored within five to ten minutes. With the installation of the more advanced circuit reclosers during 2010, Duquesne Light has now greatly enhanced its ability to restore customers in less than five minutes as reflected in the 2012 and 2013 results.

This improvement in "under five minute restorations" is not a fully automated technology driven process. Distribution supervisors in Duquesne Light's Operations Center actively analyze information they receive from devices in the field when circuit problems occur. They make conscious decisions as to the best way to quickly isolate a problem and restore customers taking into consideration a lot more information and safety concerns than a totally automated process could handle. This provides significant flexibility and a much wider range of options for restoring customers quickly and safely than a totally automated process could perform. It also helps distribution supervisors locate and plan repair of the actual fault that caused the outage in the first place which reduces repair time and shortens longer outages also.

Implementation of State-of-the-Art Pulse-Reclosing

Duquesne Light implemented all pulse-reclosing protection on a number of its 23kV circuits during 2012 and 2013. This new protection technology eliminates traditional device "hard reclosing" that occurs during circuit fault sequence operations, needed to determine if a fault is permanent and

where it is located. With pulse-reclosing, each downstream phase is tested for fault conditions without actually closing into the fault. This has the potential to reduce damage to critical components of the circuit (connectors, jumpers, cable, conductors, etc.) susceptible to damage during the fault testing sequence, making it easier and faster to repair and restore the circuit to normal operation. This enables customers affected by the outage to be restored more quickly because there is potentially less damage to repair, therefore reducing the length of service outages.

Also, the advanced circuit reclosers that Duquesne Light is using for all pulse-reclosing circuits are configured so that the closest up-stream advanced circuit reclosers to a fault is the only device on the circuit that operates for a fault so the substation breaker no longer has to open and close. This reduces the potential for stress and damage on the entire circuit because fault current is present for a much shorter time. One additional advantage, since the station breaker doesn't operate for a downstream fault, upstream customers no longer see momentary outages because of a downstream fault. This reduces momentary outages for these customers.

Year End Results of 2013 Action Plan to Improve CAIDI

During 2013, Duquesne Light implemented an Action Plan that focused on reducing its three primary causes for lengthy customer outages, specifically 1) trees (32%), 2) storm response (24%) and 3) cable failures (9%). An action plan was undertaken to decrease these outages or shorten the time required to restore affected customers due to them having the biggest impact on reducing the Customer Average Interruption Duration Index (CAIDI). As described above, the CAIDI variance is driven by the SAIFI and SAIDI results, but the Company has also proactively taken steps to reduce lengthy outages. These steps include:

1. **Vegetation Management Process** – Trees continue to be the single largest contributor to customer outage-minutes within Duquesne Light's service territory. Tree fall-in outages are very challenging to manage because of the heavy tree density, shallow soils and steep terrain found in the Greater Pittsburgh area. Generally, for a tree fall-in related outage, not only do line workers have to replace broken poles and put up fallen wires, but tree crews need to first to remove the fallen trees and make the area safe for line workers to come in and restore electrical service.

In 2013, Duquesne Light's Vegetation Management Department piloted a new Rights-of-Way (ROW) Enhancement Program that improved clearance and reliability through targeted tree pruning and tree removal on various circuits across certain distribution scheduled maintenance projects. Locations for this targeted work were determined through the analysis of outage data combined with Vegetation Management field investigations and assessment of tree-related outages to analyze and identify the reason for each tree failure that caused an outage.

While system-wide improvements in reliability gained by this new program, it may not be immediately measurable, the clearance enhancements to the ROW's involved are visually noticeable and should positively affect the numbers and duration of potential tree-related outages during routine and minor weather events in the future, thereby improving Duquesne Light's CAIDI result.

2. **Improved Restoration Process** - In 2013, Duquesne Light formed a Service Restoration Team to help identify and implement changes that improve the overall restoration process, including "blue-sky

days” as well as during storms, by prioritizing restoration work more effectively, and by monitoring the outage duration of each job more closely to be certain that customers are restored in a more timely manner.

The following is a brief summary of the Service Restoration Team’s activities in 2013:

- a. Reviewed CAIDI and 90 Minute Restoration performance.
 - b. Met with all field workers, at all Service Centers, to review the importance of safe and timely restoration. The Team:
 - i. improved the awareness of our goal to restore customers within 90 minutes, and
 - ii. encouraged better communications between supervisors and field crews.
 - c. Developed a reliability “scorecard” by Service Centers, which is published monthly to highlight performance.
3. **Improved Analysis and response to Cable Failure Outages** - Cable failures are generally the third largest cause of longer outages and the third largest contributor to customer-outage-minutes for Duquesne Light. For many reasons cable outages are usually very lengthy for customers that cannot be switched to another circuit while the cable is being repaired, directly impacting CAIDI.

In 2013, Duquesne Light initiated a program in its Asset Management Department to utilize Cable Outage Reports from the Outage Database to identify possible opportunities for cable inspections/repairs/replacement on circuits before they cause serious reliability problems for customers.

Proposed Action Plan for 2014 to Improve CAIDI

Based on analysis of the Outage Data for 2013, Duquesne Light has continued to improve customer reliability in all areas. Both SAIFI and SAIDI were at record breaking low levels for 2013 and the overall number of customer’s outage minutes has substantially declined over the past two years. We have extensively analyzed all the outages that occurred during 2013 and found that we had the fewest number of recordable sustained outages in the last 19 years. Outages that did occur were restored faster in almost every category than in previous years. The fact that the CAIDI result for 2013 (121) was higher than the 12 Month Metric Goal of 108 was caused in part by the low SAIFI metric achieved. A major factor in the low SAIFI metric was that 44% of customer outages were restored in five minutes or less. This was accomplished by distribution supervisors using enhanced remote SCADA allowing for circuit reconfiguration when faults occurred picking up a large percentage of impacted customers. This has changed the benchmarking model for CAIDI giving more weight to longer outages because so many shorter outages are now categorized as momentary operations and excluded in the overall CAIDI result. Notwithstanding the achievements with SAIFI and SAIDI, Duquesne Light will continue in 2014 to focus on reducing the length of longer outages as we did in 2013. This will help to offset the increased number of short outages that are now categorized as momentary operations.

Duquesne Light will implement four new projects during 2014 and continue two existing programs, each that focus on reducing longer duration customer outages to help restore the balance between short and long outages and help to bring CAIDI back down below the 12 month CAIDI Reliability Target of 108.

1. **Reduce Loss-of-Supply Outages to Five 4kV Substations** - Five 4kV Substations have had recent reliability problems due to loss of supply when the sub-transmission circuits feeding them had faults during storms which caused an outage to the entire substation. This caused lengthy outages on the 4kV circuits originating from these substations and to the customers they serve. Duquesne Light will install two advanced circuit reclosers at each of these substations which will automatically isolate a fault and keep the substation powered from the other side. This should mitigate the historically lengthy outages to the 4kV circuit customers.

This work will be completed by the end of the 2nd quarter, 2014.

2. **Convert a Portion of Irwin 4499 to a 23kV D-Circuit with SCADA Control** - A large portion of Irwin 4kV Circuit 4499, which has had a history of long outages due to cable failures that are difficult and time-consuming to repair, will be converted to a 23kV D-Ckt with remote SCADA Control. This should improve reliability for the customers on this circuit and mitigate a source of historically lengthy outages.

This work is already under way and will be completed by the end of the 3rd Quarter 2014.

3. **Replace Poor Performing Aerial Cable on Several Circuits** - Cable failures were the third largest cause of outages for Duquesne Light in 2013. For many reasons, cable failure outages generally are lengthy for customers that cannot be switched to other circuits while the cable is being repaired and this directly impacts CAIDI and is a hardship for the customers affected. Duquesne Light plans to replace several poor performing aerial cables that have had a history of failures. This should reduce the probability of these cables failing in the future causing lengthy outages. Aerial cable on four circuits that have had recent reliability problems have already been targeted for replacement and work is already either completed or will be completed by the end of the 2nd Quarter, 2014.

4. **Convert an Additional Six Circuits to All Pulse-Reclosing Operation** - During 2014, Duquesne Light has targeted certain distribution circuits to be converted to all pulse-reclosing operation. This should reduce circuit damage on these circuits during fault operations (i.e., result in fewer burnt connectors, open jumpers, failed cables and downed conductors.) which should make repairs faster and shorten the length of associated customer outages.

This work is already under way and will be completed by the end of the 4th Quarter, 2014.

5. **Continue to Improve the Restoration Process** – During 2014, Duquesne Light will have the Service Restoration Team meet regularly to identify and implement changes that aim to improve the restoration process. Also, Duquesne Light has formed a Field Restoration Team comprised entirely of union workers. They will work separately and develop recommendations for the Service Restoration Team to consider.
6. **Continued Focus on Reducing Tree-Related Outages** – During 2014, Duquesne Light is expanding the 2013 pilot program to additional portions of distribution and sub-transmission circuits as part of its regularly scheduled maintenance efforts. Duquesne Light will continue its ROW Vegetation Management Maintenance Program to reduce tree and branch failures through proactive pruning and

removal to increase clearances and increase reliability. Duquesne Light believes that this program will help to shorten the duration of outages by addressing targeted tree failure conditions that typically result in physical damage to our facilities.

Summary

By almost all meaningful measurements, Duquesne Light customers continued to experience some of the highest levels of service reliability throughout 2013 (best SAIDI and SAIFI performance during the 19 years we have measured it). Duquesne Light's continuous operations improvement processes, coupled with its highly automated and more intelligent Supervisory Control and Data Acquisition (SCADA), enable trained Distribution Operation Center supervisors to prevent certain outages, quickly identify outages that did occur, and quickly reroute circuits or restore service to customers, often within five minutes. Fortunately too, Duquesne Light had a relatively mild weather-event year in 2013. Also, Duquesne Light only experienced one major storm in 2013, and was spared from the severe storms experienced by peer utilities in the eastern portions of the State.

As explained in this report, although Duquesne Light's CAIDI performance metric was above the targeted threshold number stated in our settlement agreement, due in part to the exceptionally good SAIFI and SAIDI performance again this year, the Company is implementing a number of initiatives which it believes will have a positive effect on its 2014 CAIDI performance.

Attachment #2

**GIC Annual Report of the
Management of
the Government's Portfolio**



Report on the Management of
the Government's Portfolio
for the Year 2012/13

2013 HIGHLIGHTS

Performance

The annualised 20-year real rate of return for year ended 31 March 2013 was 4.0%. In USD nominal terms, GIC achieved an annualised return of 2.6%, 8.8% and 6.5% for 5-year, 10-year and 20-year time periods respectively.

New Investment Framework

On 1 April 2013, GIC implemented a new investment framework that resulted from a review in 2012. There is now a Reference Portfolio comprising 65% global equities and 35% global bonds which reflects the amount of risk that the Government is prepared for GIC to take in its long-term investment strategies; a simplified Policy Portfolio with six core asset classes that will drive the GIC's returns over the long term; and an Active Portfolio which comprises a collection of skill-based strategies that seeks to add value to the Policy Portfolio within risk limits defined by the GIC Board.

This year's report on investment performance is still based on the previous model. Subsequent Annual Reports will be based on the new investment framework.

Establishment of an Investment Board

The Investment Review Committee was renamed the Investment Board in April 2013. This board committee comprises solely private sector experts who have had extensive experience with a large variety of investments in a range of geographies. Mr Ang Kong Hua chairs the Investment Board. Mr Peter Seah replaces Mr Ang as Chairman of the Human Resource and Organization Committee, and is also appointed Deputy Chairman of the Investment Strategies Committee.

New Members to the International Advisory Board

GIC welcomed three new members to the International Advisory Board – Mr Knut Kjaer (1 November 2012), Mr Ng Kok Song (11 February 2013) and Mr David Denison (1 April 2013). They also serve as advisors to various board committees.

Leadership Changes

Mr Ng Kok Song retired as Group Chief Investment Officer on 1 February 2013. He is succeeded by Mr Lim Chow Kiat. Dr Jeffrey Jaensubhakij took over from Mr Lim Chow Kiat as President of GIC Asset Management on 1 April 2013. Mr Lim Kee Chong was appointed Deputy Group Chief Investment Officer on 1 April 2013.

Appointments and Retirements of Managing Directors

Four Managing Directors retired in the 12 months since July 2012 – Mr Wan Ismail, Ms Chen Soon Bin, Mr David Dickinson and Mr Michael Simcock. GIC thanks them for their services and wishes them well in their future endeavours. Four new Managing Directors were appointed from 1 July 2013 – Mr Sun Jianjun, Mr John Tang, Mr Tham Chiew Kit and Mr Bryan Yeo.

Shortening of company name to "GIC"

GIC changed its legal name from "Government of Singapore Investment Corporation Private Limited" to "GIC Private Limited". The change formalised the widely-used brand name of "GIC" in the global investment community and markets that GIC operates in.

Report on the Management of
the Government's Portfolio
for the Year 2012/13

THE GIC PRIMER

Our responsibility is to preserve and enhance Singapore's foreign reserves. People and talent are central to what we can do. We believe that the results we seek are best achieved through a culture founded on our five PRIME values of Prudence, Respect, Integrity, Merit and Excellence.

PRUDENCE

We exercise prudence and sound judgment and take a considered approach to managing risks as we seek to deliver sustainable, superior investment returns, always conscious of our overriding fiduciary responsibility.

As an institution and as individuals, we conduct ourselves with good sense and circumspection, even as we take the best advantage of our large asset base, global presence, multi-asset approach and long-term orientation.

RESPECT

All of us are united in a common endeavour, regardless of who we are, where we work or what we do. We respect people as individuals, care for their well-being, and welcome diversity in capability and background. We do not tolerate behaviour that works against the interest of our clients or of GIC.

We stress teamwork within and across departments, and with our clients and business partners. We expect everyone to be free, candid and constructive in their comments and suggestions, and always seek to help our colleagues and GIC do better.

INTEGRITY

Everything we do is founded on integrity. We expect the highest standards of honesty from everyone in GIC, both in our work and in our personal lives. This includes abiding by the laws of the countries we invest in, and observing our code of ethics in letter and in spirit.

We must never jeopardise the trust others have in us and in our reputation for professionalism.

MERIT

We recruit and develop our people solely on merit. We draw our talent from around the world and provide challenging and meaningful work. We grant recognition and reward based on performance and conduct consistent with our PRIME values. We develop our people to achieve their potential so that we may also perform to our potential.

We select business partners based on their capability. We believe in long-term relationships built upon high levels of performance and quality of service.

EXCELLENCE

We are relentless in our pursuit of excellence. In all that we do, we strive to be the best that we can be. This demands that we plan and anticipate well, so that we will always be in time for the future, fully able to take up the challenges and opportunities that come, pursuing improvements where they may be found, and economies where these may be gained.

We expect everyone to do his best in every situation. We harness the creativity and imagination of our people and our business partners for sustainable, superior results.

THE GIC WAY

The GIC Way is a set of principles that defines the way we think and act. It sharpens our focus on our client, our commitment to people and our future. The PRIME Values acts as our compass – having a good compass enables us to get back to our fundamental purpose and beliefs, especially when we are faced with situations we have not come across before.

CLIENTS FIRST

- When our Clients do well, we do well
- Never compromise our PRIME values and reputation; not even for better returns
- Always follow GIC's investment principles (5Ps):
 - Pursue intrinsic value and maintain price discipline
 - Practise long-term investing
 - Pick our spots: be focused and leverage our strengths
 - Pay attention to risk control
 - Prepare for the future

PEOPLE – THE KEY

- Do what's right, not what's easy
- Help GIC make the best decisions. Speak up if you have a different view
- Attract exceptional people and develop them to their full potential
- Embolden innovation and encourage learning
- Reward what matters: contribution; not pedigree, age, gender or nationality
- Excel in what you do; make a difference
- Empower decision-making at every level
- Work seamlessly across boundaries and hierarchy
 - OneGIC

FUTURE NOW

- Tomorrow is determined today
- Build leadership and resources for the future
- Insist on nimble and responsive structures and processes

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AND GROUP CHIEF INVESTMENT OFFICER
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OVERVIEW BY GROUP PRESIDENT AND GROUP CHIEF INVESTMENT OFFICER

Stock markets in the United States rallied strongly on the back of “quantitative easing” by the Federal Reserve and signs that the US economy was gradually moving towards sustainable growth. Europe continues to struggle with anaemic growth, if not recession, though the political will to keep the Eurozone together has held. On the other side of the globe, Japan looks at chances of breaking its 20-year malaise while China contemplates the restructuring of its economy.

The year ended 31 March 2013 saw steady long-term investment returns on the foreign reserves of the Singapore Government managed by the GIC. GIC reports its 20-year performance in real returns, which reflects the investment mandate from the Singapore Government. The GIC Portfolio's¹ 20-year annualised real rate of return for the year ended 31 March 2013 is 4.0%, as compared to 3.9% the previous year. These results are discussed in the chapter on Investment Report.

In 2012, GIC launched a holistic review of its investment approach. This was the second major review since GIC's inception in 1981. The aim was to prepare the GIC Portfolio to meet a more challenging and complex investment environment, so that GIC could continue to earn good long-term real returns. The new investment framework was implemented on 1 April 2013.

The framework introduces firstly, a **Reference Portfolio** for the GIC, comprising 65% global equities and 35% global bonds (“65:35”)². The 65:35 global portfolio characterises the risk that Government is prepared to have GIC take in its long-term investment strategies.

Within this risk constraint, GIC seeks to achieve better long-term returns than the Reference Portfolio through its asset allocation strategies. These strategies are represented by GIC's **Policy Portfolio**, which comprises six core asset classes. This second component of the framework aims to enhance long-term returns through portfolio construction and diversification, and by taking advantage of higher returns that emerging markets and illiquid assets offer.

Importantly, the Reference Portfolio is not a short-term benchmark for GIC. GIC invests in less liquid or higher risk assets for better long-term returns, knowing that the Policy Portfolio may underperform the Reference Portfolio over shorter horizons. GIC's strategy is not to track the Reference Portfolio, so these deviations in performance may be significant and can last for several years.

A third component of the framework is an **Active Portfolio** where the GIC management is allowed to deviate from the Policy Portfolio and add value through active, skill-based strategies. The management takes responsibility for the Active Portfolio, which operates within an explicit active risk budget set by the GIC Board, and with a defined cost of capital for each active strategy.

The new investment framework further clarifies responsibilities within GIC. The GIC Board approves the Policy Portfolio, which must stay within the overall risk limits set by Government, as represented in the 65:35 Reference Portfolio. A new board committee, the Investment Board, has also been established to oversee GIC's active investment processes, with particular attention to large investments³. The Investment Board, at its establishment in April 2013, comprises members from the private sector within Singapore and globally, with extensive experience of investments in a range of asset classes and geographies. The membership of the Investment Board is covered in the Governance chapter of this Report.

¹ This refers to the Government's foreign reserves managed by GIC. In previous reports, this was called the Government's Portfolio.

² 65% MSCI All Country World Equity Index and 35% Barclays Global Aggregate Fixed Income Index.

³ The Investment Board replaces the Investment Review Committee, whose role was limited to overseeing decisions on large investments.

Taken as a whole, the new investment framework capitalises on GIC's core strengths: the ability to take a long-term investment perspective; a global presence; capabilities to invest in cross-asset opportunities; a skilled and experienced team; and a governance structure that distinguishes clearly the responsibilities of the GIC Board and management. It also enables GIC to be more responsive to the changing investment environment after the global financial crisis. The new framework is described in the feature article "GIC's New Investment Framework".

This year also saw the change of our legal name from "Government of Singapore Investment Corporation Private Limited" to "GIC Private Limited". The change formalised the widely-used brand name of "GIC" in the global investment community and markets that GIC operates in.

People are the key to all achievement. For GIC to be leading as a long-term global investor requires us to capitalise on our multi-asset class capability, backed by a continuous drive for responsiveness and efficiency, a reputation for professionalism and trustworthiness, and a relentless pursuit of innovation and improvement. This is where The GIC Way becomes central in drawing GICians together to be the best they can be, bound by common purpose and driven by the values of Prudence, Respect, Integrity, Merit and Excellence.

We thank our client, our business partners and associates, and all GICians for all we have been able to achieve together in the year past.



LIM SIONG GUAN
Group President



LIM CHOW KIAT
Group Chief Investment Officer

INVESTMENT REPORT

LONG-TERM INVESTMENT RESULTS

The long-term real rate of return i.e. returns over and above a measure of global inflation,¹ is the key focus for GIC. The primary metric to evaluate GIC's investment performance is the rolling 20-year real rate of return on the GIC Portfolio. *This metric reflects our mandate to preserve and enhance the international purchasing power of the reserves placed under our management over the long term.* The annualised 20-year real rate of return¹, in excess of global inflation, as of 31 March 2013 was 4.0% (Figure 1). In USD nominal terms², GIC achieved a return of 6.5% over the same period.

MEDIUM-TERM INVESTMENT RESULTS

We have provided nominal rates of return in USD terms over 5- and 10-year periods since our 2011 report, in addition to the 20-year real and nominal rates of return. The 5- and 10-year investment results give a sense of the ongoing performance of the portfolio and can serve as intermediate trackers of how GIC's long-term results are evolving.

As of 31 March 2013, the GIC Portfolio had annualised nominal rates of return in USD terms of 2.6% over five years, 8.8% over 10 years and 6.5% over 20 years. In understanding these results, it is helpful to look at developments in the global market. In the last two Annual Reports, we had presented the performance and risk of two composite portfolios - "60:40 global portfolio" and "70:30 global portfolio". For simplicity, in this report we present a "65:35 global portfolio", whose risk and return characteristics fall in between the two. The 65:35 global portfolio is also the Reference Portfolio that GIC has adopted from 1 April 2013, although it was not the Reference Portfolio during the 20 years for which GIC's performance is given in this report. (The feature article "GIC's New Investment Framework" elaborates.)

Table 1 shows the GIC Portfolio returns alongside a 65:35 global portfolio and looks at investment returns in the context of risk, as defined as the annualised standard deviation of monthly returns. GIC's 20-year return at 6.5% in USD terms was lower than that for the 65:35 global portfolio at 7.2%. This reflects the fact that GIC's asset allocation until 10 years ago had a much lower risk profile than a 65:35 global portfolio. The GIC Portfolio was not as large then, and it had a conservative orientation. In the last decade, however, GIC significantly reduced its allocation to bonds and cash while increasing the exposure to public equities and alternative asset classes. Consequently, over the last 10 years, GIC's performance at 8.8% in USD terms had been comparable to the 65:35 global portfolio which returned 8.6%. GIC's performance over the period had been helped by its investments in public emerging markets and alternative asset classes.

GIC's returns over the last 10 years also exceeded that of the US endowment funds, which similarly have long investment horizons. The US endowments had average returns of 6.2% in USD terms over the 10-year period ended June 2012³.

Over the shorter term of five years, GIC's return was 2.6% in USD terms, lower than the 65:35 global portfolio return of 3.4%. GIC's performance over this period, like that of many long term-oriented institutional investors, had been affected by the weaker performance of alternative asset classes like real estate and infrastructure, which were slower to recover after the 2008/09 Global Financial Crisis. GIC's public market investments performed comparably to the 65:35 global portfolio.

¹ The real return number is independent of the currency used to compute it. This is because both the nominal returns and global inflation have to be expressed in the same currency for computation. Any change in how one component is expressed in terms of currency will also apply to the other.

² The nominal rates of return have been reported in USD terms since our 2009 report as the USD is the most common currency base for publishing global investment returns that allows for easy comparison.

³ Source: 2012 NACUBO Commonfund Study of Endowments, based on 687 US colleges and universities, institution-related foundations, and combined endowments/foundations. The 2013 study is not yet available. The 75th percentile in NACUBO returned 1.9% and 6.9% for the 5- and 10-year periods ended June 2012 respectively. Note that these returns are based on a different annual reporting cycle from GIC's, although this would not have a significant impact on the basic trends over 5- and 10-year periods.

Figure 1: Annualised Rolling 20-Year Real Rate of Return for the GIC Portfolio⁴ since 2001

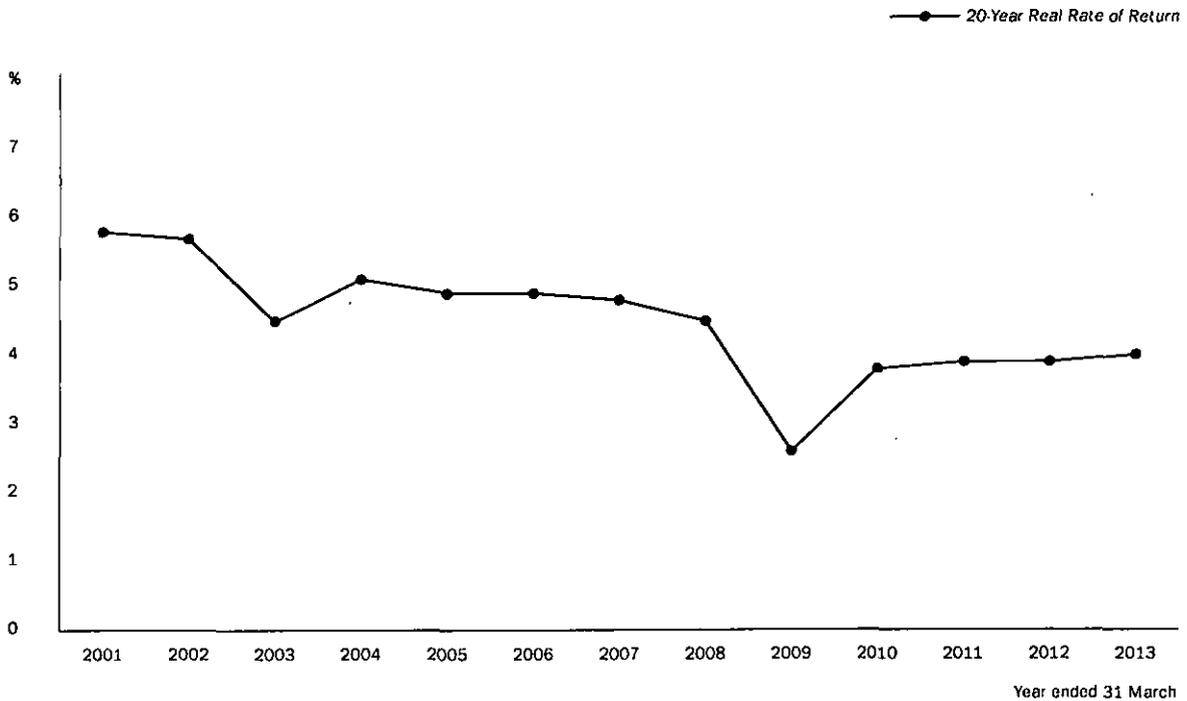


Table 1: Performance and Volatility of the GIC Portfolio and 65:35 Global Portfolio

Time Period	Annualised nominal rates of return in USD for period ended 31 March 2013		Annualised volatility for period ended 31 March 2013	
	GIC Portfolio	65:35 Global Portfolio	GIC Portfolio	65:35 Global Portfolio
5-year	2.6%	3.4%	12.8%	15.3%
10-year	8.8%	8.6%	10.3%	11.9%
20-year	6.5%	7.2%	9.1%	10.9%

⁴ The GIC Portfolio rates of return are computed on a time-weighted basis, net of costs and fees incurred in the management of the portfolio. However, the 65:35 global portfolio rates of return are provided on a gross basis, i.e. without adjustment for costs and fees.

INVESTMENT REPORT

It is not unusual for illiquid and alternative assets such as real estate to recover more slowly from a crisis. This is also why the US endowment funds, which have had higher exposure to alternative asset classes than GIC, returned 1.1% in USD terms in the five-year period ended June 2012. However, while an investment portfolio that includes such assets will often underperform in the short term, it is expected to pay off in the long term. This has indeed been GIC's experience since it increased its allocation to real estate and other alternatives a decade ago.

For all three time periods, the GIC Portfolio was less volatile than the 65:35 global portfolio.

The basic picture therefore is that GIC's long-term performance has reflected its asset allocation strategy, and how much risk it has been willing to bear. The shift from a very conservative asset allocation from the earlier years to a diversified portfolio including significant equity and alternative asset allocations will allow GIC to take full advantage of its status as a long-term oriented investor.

ASSET MIX

Table 2 shows the asset class distribution of the portfolio as of 31 March 2013.

It is important to note that the positions reflected are at a point in time, i.e. 31 March 2013, and may not reflect the long-term strategy of the portfolio. In next year's report, we will publish the positions under the New Investment Framework.

GEOGRAPHICAL DISTRIBUTION

The geographical distribution of assets (refer to Table 3) was broadly unchanged during the year.



Table 2: Asset Mix⁵ of the GIC Portfolio

		31 March 2013		31 March 2012	
		%	%	%	%
Public Equities	Developed Markets	31	46	30	45
	Emerging Markets	15		15	
	– Emerging Asia				
	– Emerging Non-Asia				
Fixed Income	Nominal Bonds	19	21	15	17
	Inflation-Linked Bonds	2		2	
Alternatives	Real Estate	10	26	10	27
	Private Equity & Infrastructure	11		11	
	Absolute Return Strategies	3		3	
	– Marketable Alternatives				
	– Real Return Programme				
	Natural Resources	2		3	
Cash & Others		7	7	11	11
Total		100	100	100	100

Table 3: Geographical Distribution of the GIC Portfolio

		31 March 2013		31 March 2012	
		%	%	%	%
Americas	United States	36	44	33	42
	Latin America	4		4	
	Others	4		5	
Europe	United Kingdom	8	25	9	26
	Eurozone	11		11	
	Others	6		6	
Asia	Japan	10	28	12	29
	North Asia ⁶	13		13	
	Others	5		4	
Australasia		3	3	3	3
Total		100	100	100	100

⁵ There is a thirteenth 'Special Situations Portfolio' asset class which comprises investments that arise opportunistically or exhibit features different from existing asset classes. Investments in this asset class are subsumed under the broad categories in Table 2.

⁶ China, Hong Kong, South Korea and Taiwan

MANAGING THE PORTFOLIO

GIC's mission is to preserve and enhance the international purchasing power of the reserves placed under our management by the Singapore Government. The aim is to achieve good long-term returns above global inflation over the investment time horizon of 20 years.

The GIC Board approves the Policy Portfolio which specifies the allocation of funds to eligible asset classes. The Policy Portfolio is designed to generate returns over a long-term investment horizon. It represents the key systematic or market risk that forms the long-term driver of returns for the GIC Portfolio. GIC management has the flexibility to deviate from the Policy Portfolio within pre-determined operating ranges, to achieve higher risk-adjusted returns.

MANAGING THE PORTFOLIO

New Investment Framework

This section describes GIC's previous investment model that was in place until March 2013. From 1 April 2013, we have introduced a new investment framework that focuses on the key asset classes that generate returns over the long term but may be more risky or illiquid in the short term. The next feature article describes this new investment framework. Subsequent Annual Reports will be based on the new investment framework.

INTRODUCTION

The investment process begins with the Policy Portfolio, which defines the key asset classes that drive the GIC Portfolio's long-term returns.

The purpose is to meet the investment return objective within the risk tolerance determined by the Singapore Government as owner of the funds.

The Policy Portfolio is designed to harvest risk premia over a long-term investment horizon. It is constructed through quantitative analysis and judgment. The quantitative analysis of historical data generates an initial set of assumptions for key variables, such as the expected long-term return and risk of various asset classes, and their correlations with one another. These assumptions must then be evaluated qualitatively. They are adjusted for perceived structural changes in the global environment and capital market behaviour, taking into account operating constraints such as liquidity and market capacity, as well as the probability of extreme risk events.

The portfolio is then stress-tested to ensure its compliance with the risk parameters that have been set.

The aim is to optimise distribution of investment funds to these asset classes. Operating ranges are specified to accommodate acceptable deviations arising from short- and medium-term volatility and technical causes. In addition, we have a facility for a medium-term asset allocation strategy to enable GIC to make calibrated departures from the Policy Portfolio in response to extreme market conditions. Such large deviations from the Policy Portfolio are usually considered when valuations are excessive or when there is possibility of permanent impairment.

MANAGING PERFORMANCE

The investment process starts with the design of the Policy Portfolio. The Economics and Investment Strategy Department undertakes the analyses and groundwork. The recommendations are discussed with the Investment Strategies Committee. Once endorsed, they are submitted to the Board for approval as the policy asset allocation of the portfolio under management. The Policy Portfolio is kept under review but is not changed frequently.

The Active Portfolio is a result of management's decision to fund skill-based investment strategies which deviate from the Policy Portfolio.

GIC's investment professionals work together to integrate strategies and execute investments across product types, public and private markets, and capital structures. The portfolio is rebalanced regularly to maintain the risk exposure to the different asset classes at the intended levels.

Managers are fully accountable for the performance of their portfolios. Their decisions must comply with prescribed guidelines and limits of the Investment Mandate. We evaluate our performance in three ways: whether we achieve a reasonable rate of return above global inflation for the total portfolio; how each investment professional or team performs against specific market benchmarks; and how our managers' results compare with those of their peers in the industry.

Our performance measurement is focused on long-term investment results, based on a disciplined and rigorous investment and risk management process.

IMPLEMENTATION

GIC makes investments in public markets, real estate and private equity in more than 40 countries.

Our long-term orientation allows us to withstand periods of significant market volatility. Our patient capital allows us to benefit from holding investments that take longer to realise their potential.

While we are open to investing in all countries outside Singapore, we do not invest in those subject to United Nations Security Council sanctions. We exercise ownership rights in our investments to appropriately protect our financial interest.

PUBLIC MARKETS

GIC invests in publicly-traded markets, including public equities in both developed and emerging markets, absolute return strategies (hedge funds), fixed income, cash and currencies. We manage a well-diversified portfolio to produce sustained, superior risk-adjusted performance.

Traditional asset class investments in equities and fixed income make up the bulk of the portfolio's investments in public markets. These are complemented by absolute return strategies which provide prospects for us to generate long-term real returns largely independent of broad market movements.

We evaluate the performance of our investment teams against relevant market benchmarks such as the MSCI and Barclays Global Bond indices.

Equities

GIC pursues both active and passive management strategies in equity investing. We have an established team of in-house research analysts and experienced portfolio managers. They conduct in-depth due diligence and research that enable us to identify undervalued stocks with the potential to generate good returns over the long term. Our investment professionals have a wide network of corporate and industry contacts with diverse insights on companies in the investment universe.

Fixed Income

Fixed income investments aim to generate steady returns, provide a liquidity reserve to support portfolio management activities, and enhance capital preservation through diversification. Our portfolio managers employ a range of *investment strategies in managing fixed income investments* including yield curve analysis, credit, interest-rate duration and currency management to add value to the portfolio.

PRIVATE MARKETS

Our allocation to alternative asset classes stems from their potential to generate high long-term real returns and their role of diversification in the portfolio. Investments in the private markets offer higher returns to compensate for higher risk as these assets are less liquid and more difficult to trade. Real estate assets, in particular, also serve as a hedge against inflation.

GIC's long investment horizon puts us in a good position to exploit market inefficiencies through the active management of these assets.

Real Estate

GIC is an early entrant among institutional investors in real estate. Investments include traditional private real estate (brick-and-mortar assets), public equities (such as real estate operating companies), real estate investment trusts and real estate-related debt instruments. The real estate assets span multiple property sectors, including office, retail, residential, industrial and hospitality.

Real estate investing is governed by guidelines covering countries and regions, property asset types and sectors to ensure the portfolio meets both investment and risk objectives. Asset-specific conditions and risk are among the factors that influence investment decisions. GIC actively manages the assets to generate income and enhance market value through tenant management, market positioning, leasing and capital improvements. In this team-based approach, an appropriate range of real estate and capital market skills is applied to each investment.

MANAGING THE PORTFOLIO

Private Equity

GIC's private equity universe includes buyouts, venture capital and special situations such as mezzanine debt, distressed debt and secondary fund investments. We invest both directly in companies as well as through funds. The direct investment programme is focused on taking minority equity positions as well as providing mezzanine financing in buyouts. Our funds strategy aims to identify and invest with leading private equity and venture capital funds globally, and grow with them in the long run. We have built up a network of over 100 active fund managers.

The investment teams add value to the boards and management of the investee companies by providing advice and access to a global network of business links.

EXTERNAL MANAGERS

GIC partners top-tier fund management institutions that offer access to opportunities, specialised capabilities, in-depth analysis and experience which complement our internal management capability.

We invest in a variety of funds including real estate funds, private equity funds, bond funds, index funds and hedge funds. In addition to the portfolios managed within GIC, we place out discretionary mandates to external fund managers in a wide range of asset classes such as global fixed income and global equities.

While external managers are responsible for their mandates, *GIC remains fully accountable for the overall performance of the portfolio.* We consistently assess them relative to expected returns, risks and guidelines.

MANAGING RISK

The Singapore Government, as owner of the funds, determines the risk tolerance which GIC works within to achieve the investment return objective.

Identifying and managing risk is an integral part of management responsibility at all levels in GIC. The risk management framework sets the accountability and responsibility parameters for risk-taking. In addition to the Board and its Risk Committee, different bodies and groups are specifically charged with the task of identifying, analysing, monitoring, reporting and on-the-ground managing of risks.

Our approach to risk management is three-pronged: managing portfolio risk to ensure that risk taken is commensurate with the expected returns and consistent with our mandate; managing process and infrastructure risk so that investment decisions are implemented well; and managing people risk.

MANAGING PORTFOLIO RISK

The Board approves the operating bands for asset classes within the risk parameters specified by the Government. The operating bands are aimed at containing portfolio volatility that may arise from the Policy Portfolio deviations, tactical decisions and market movements. A group-wide investment authorisation framework sets out the approving authorities for different classes and sizes of investments, and subjects large investments to additional review. The Risk and Performance Management Department independently sets and monitors performance and risk review thresholds to ensure that risk is properly diversified and managed. Information systems monitor and evaluate risk criteria, trading limits and investment guidelines within each managed portfolio. These systems allow for both pre-trade and post-trade compliance checking.

Portfolio managers and senior management obtain timely feedback through performance and risk attribution tools. *This is complemented by regular discussions between the Risk and Performance Management Department, which conducts its independent analyses of risk and performance drivers of the portfolio, and the portfolio managers.* Stress tests are also conducted based on a variety of scenarios to determine how potential changes in market conditions and risk events may impact the portfolio. Investment and operations teams work closely with the Legal and Compliance Department to manage legal and regulatory compliance risks arising from the group's investment activities. The in-house legal team also works with external lawyers to address legal risks.

GIC adopts a risk budgeting discipline for investment strategies to construct an efficient portfolio of active strategies. Risk capital is allocated to investment strategies according to the track records of the investment teams and their potential to generate risk-adjusted returns. The budget is monitored closely to ensure that risk is properly diversified and managed.

Investment teams in private market asset classes conduct extensive due diligence covering the market, physical, legal and financial aspects of the transactions, and the selection of investment partners, holding structures, and exit strategies. They manage the measurement and operational risks associated with the performance of private market assets via operational and financial controls.

MANAGING PROCESS AND INFRASTRUCTURE RISK

All investment and operations staff are required to identify, evaluate, manage and report risks in their own areas of responsibility, and to comply with established risk policies, guidelines, limits and procedures.

New investment products or strategies are subject to a risk identification and assessment process conducted by a cross-functional group, so that risks associated with the new product or activity are identified and analysed before any new investment takes place. This process includes ensuring that the required people and infrastructure, including systems, procedures and controls, are in place to manage these risks.

GIC adopts a strong control orientation in managing counterparty credit risk, trading only with financially sound and reputable counterparties. There is a stringent selection and approval process in place to appoint counterparties. We monitor our counterparty exposure against set limits and report counterparty profiles to senior management regularly. *Other measures to mitigate credit risk include using netting agreements and programmes requiring counterparties to pledge collateral.*

We continuously monitor for key risk indicators including late transaction processing, late report releases, stale prices and system downtime. These indicators highlight potential risk areas that need to be addressed in a timely manner in order to mitigate the risk of loss resulting from possible slippages in GIC's operations.

Infrastructure, including technology and data, plays a critical role to enable effective investment and risk management. Policies and procedures are established to safeguard the physical security and integrity of GIC's technology and data assets.

Our business continuity plan is tested and reviewed regularly to ensure that our procedures and infrastructure can support operations in the event of a business disruption. This enhances corporate resilience and safeguards the group's operations.

Throughout the year, internal and external auditors scrutinise all operations and business processes. Any deficiencies identified must be addressed within set time frames and reported to senior management.

MANAGING PEOPLE RISK

We require our staff to observe GIC's code of ethics, maintain exemplary conduct, and comply with laws and regulations, including prohibitions against insider trading and other unlawful market conduct.

Staff must protect confidential information and handle non-public material with due care. These guidelines are set out in our compliance manual, which is maintained by the Legal and Compliance Department. The manual also states policies relating to the management of conflicts of interest, gifts and entertainment, copyright rules, personal investments and whistle-blowing.

We provide regular training to all staff to keep them current with compliance requirements. The training also helps raise the awareness of operational risk. Staff receive training on *exchange regulations relevant to their responsibilities.*

Consistent with our long-term orientation, GIC's remuneration policies and practices support and reinforce a prudent risk-taking culture, as well as recognise and reward our people on the basis of sustainable results.

People are at the heart of our business. Our PRIME values are the compass in our management of people, processes and portfolios. These values are included in our staff appraisals.

GIC'S NEW INVESTMENT FRAMEWORK

In 2012, GIC launched a holistic review of its investment approach. This was the second major review since GIC's inception in 1981. The aim was to position the GIC Portfolio in anticipation of a more challenging and complex investment environment, so that GIC could continue earning good long-term real returns. The review built on GIC's strengths, applied lessons learnt, and considered changes to both investment strategies and governance.

This article describes the key outcomes of this review. The main changes to GIC's investment model involve making explicit distinctions between three drivers of long-term performance. First, the **Reference Portfolio** which is based on a balance of global equity and bond market indices, and describes the amount of risk the Government is prepared to have GIC take. Second, the **Policy Portfolio** which represents GIC's strategy for asset allocation, that differentiates it from the passive Reference Portfolio and aims to improve returns over the long horizon. This Policy Portfolio is approved by the GIC Board, and has been simplified from 13 to 6 asset classes so as to focus on the core drivers of returns over the long term. Third, the **Active Portfolio** that allows the GIC management to undertake skill-based and opportunistic strategies. This Active Portfolio is the responsibility of the GIC management operating within a risk budget set by the GIC Board.

CHANGES TO GIC'S INVESTMENT APPROACH – 1980s TO 2000s

To provide context to the most recent changes, the next section highlights the major shifts in GIC's investment framework (Figure 1).

THE FIRST TWO DECADES

Building organizational capabilities

GIC's investment stance in the first two decades was conservative. Its first priority was to build an investment organization that could preserve the purchasing power of the funds that it managed. When GIC began operations as a fund manager for the Government, it inherited a legacy portfolio from the *de facto* central bank, the Monetary Authority of Singapore (MAS), which comprised mainly Treasury bills, short-term bonds and gold. These assets were aligned to a typical central bank's need for safety and liquidity. The reserves managed by GIC were then regarded primarily as a *contingency fund* to see a small, resource-scarce nation through trying

Figure 1 – Major Changes to GIC's Investment Framework

FIRST TWO DECADES

Conservative Stance

- Focused on building organizational capabilities
- Conservative asset allocation focused on liquid assets
- Venturing into Asia
- Beginning exposures to real estate and private equity

2000s

Shift to an Endowment Approach

- Greater tolerance for risk and lower need for liquidity
- Increased allocation to private markets and emerging markets

2013

Focus on Long-Term Drivers of Returns

- Introduction of a Reference Portfolio
- A more targeted Policy Portfolio to harvest long-term returns
- Augmented with an Active Portfolio of skill-based strategies

national or international circumstances. Caution was also called for because of the unusual stress in global financial markets in GIC's early years.

In addition, GIC's investment capabilities were then rudimentary. There was a dearth of investment management expertise locally, and GIC's initial hires were largely inexperienced, young professionals. A few experienced global investment managers were hired and tasked with managing the initial portfolio and mentoring GIC's officers. As GIC developed its investment capabilities, it gradually expanded to cover more asset markets. This meant investing in equities beyond the US and Japan, which it started with, to selected European and Asian markets. A bonds department was also formed. New units were created to invest in private equity and real estate, although funds allocated were small.

Conservative asset allocation focused on liquid assets

GIC's initial Policy Portfolio, which remained in place until the end of the 1990s, was 30% equities, 40% bonds and 30% cash ("30:40:30"). The portfolio was decidedly conservative. It had a larger allocation to cash and bonds than other institutional investors such as US pension funds, which typically had asset allocations of 60% to 70% equities, 30% to 40% bonds and no cash.

The 1990s – Venturing into Asia

In the 1990s, GIC began moderating its concentration in the US and UK markets, which then accounted for 60% to 70% of the portfolio. It broadened its portfolio to take advantage of new investment opportunities in Europe and emerging Asia following the end of the Cold War.

Intertwined with the orientation towards Asia was an increased allocation to real estate and private equity, although they remained a small percentage of the total portfolio. As the capital markets in many emerging Asian countries were underdeveloped, investments in real estate and private equity often provided avenues to capitalise on the economic transformation in these fast growing economies.

THE 2000s – SHIFT TO AN ENDOWMENT APPROACH

In the early 2000s, GIC and the Ministry of Finance embarked on a major review of GIC's investment objectives and asset allocation policy. The Ministry decided that it could accept higher risk and illiquidity in the portfolio. The result was a Policy Portfolio with a larger allocation to public equities, especially in emerging markets, and alternative asset classes.

The review was prompted by the growth of the GIC Portfolio over the first two decades. The reserves had become more than a contingency fund; they also formed the country's financial endowment. This meant that the GIC Portfolio had less need for liquidity and could invest a larger proportion in assets with inherently higher risks so as to achieve better long-term returns, even though such assets could be more volatile in the short term. GIC could thus take greater advantage of its long investment horizon. The deepening of emerging markets as well as the development of alternative asset classes globally, such as commodities, inflation-linked bonds, and absolute return strategies provided some of the means to do so.

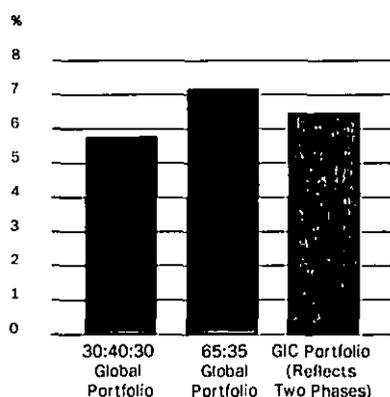
The review led GIC to adopt a new Policy Portfolio that reflected its increased risk tolerance. Allocations to bonds and cash were reduced steadily from over two-thirds to less than one-third of the portfolio. Correspondingly, there was a significant increase in allocations to public equities including emerging market equities, and to alternative asset classes such as real estate, private equity, infrastructure and absolute return strategies. Over the decade, the GIC Policy Portfolio grew to include 13 asset classes¹. Similar shifts towards equities and alternative assets were made by some other sovereign wealth funds, such as Norway's Government Pension Fund Global, which embarked on its new strategy in 2007. However, GIC's allocation to equities and alternative asset classes remained smaller than that of many other endowment funds in the US.

GIC's increased exposure to public equities and alternative asset classes had led to a shift in the medium- to long-term risk and return profile. This is illustrated in Figure 2, which shows returns over the last 20 years for different portfolios. An investor with a conservative 30:40:30 global portfolio would have earned 5.8% per annum (in USD terms) over the last 20 years, as compared to a 7.2% return delivered by a 65:35 global portfolio. The GIC Portfolio reflected these two distinct risk orientations – a conservative asset allocation of 30:40:30 initially, before taking on a risk profile very similar to a 65:35 global portfolio in the last 10 years through an increased allocation to equities and equity-like assets. Consequently, the GIC Portfolio delivered 6.5% over the 20-year period as a whole, in between the results of these two different portfolios².

¹ These were: developed markets equities, emerging markets equities (distinguishing between Asia and non-Asia), nominal bonds, inflation-linked bonds, real estate, private equity, infrastructure, marketable alternatives, natural resources, special situations portfolio, real return programme, and cash.

² In the last 10 years when the asset mix was closer to that of a 65:35 global portfolio, the GIC Portfolio returned 8.8% compared to 8.6% for the 65:35 global portfolio, and 6.3% for the 30:40:30 global portfolio.

Figure 2 – 20-Year Annualised Returns* as of 31 March 2013 (in USD terms)



Note:

* The GIC Portfolio rates of return are computed on a time-weighted basis, net of costs and fees incurred in the management of the portfolio. However, the global portfolio rates of return are provided on a gross basis, i.e. without adjustment for costs and fees.

THE 2012 REVIEW – FOCUSING ON LONG-TERM AND SKILL-BASED DRIVERS OF RETURN

A decade after the last major review, GIC embarked on a fresh review in 2012. This focused on GIC’s core strengths and capabilities that would enable it to sustain high performance in an increasingly challenging and complex investment environment. It also clarified GIC’s long-term investment objectives and the responsibilities of the GIC Board and management. The review involved both GIC Board and management and benefited from extensive consultations with a group of eminent experts in investment management³.

The review came after the Constitution Amendment in 2008 which allowed the

Government to spend Net Investment Returns on assets managed by GIC and MAS on the basis of long-term expected real returns rather than actual annual investment income which may fluctuate significantly depending on market cycles. This approach was similar to that of major endowment funds. Focusing on total returns, including capital gains and losses, removed any incentive to skew investments towards obtaining interest and dividend income at the expense of total returns, or to follow strategies that maximise short-term returns at the expense of longer-term performance. This new framework of spending out of expected long-term returns reinforced the GIC’s orientation of taking a long-term approach in its investment strategies, including a significant allocation to equities and less liquid asset classes even if they entailed higher risks over the short term.

Drivers of long-term performance

This new investment framework makes explicit the distinction among three drivers of long-term performance for GIC.

- First, the performance of global markets. This is represented by the **‘Reference Portfolio’** which characterises the risk that the Government is prepared for GIC to take in its long-term investment strategies.
- Second, the GIC’s **‘Policy Portfolio’** which represents its strategy for asset allocation that differentiates it from the passive Reference Portfolio and

aims to achieve superior returns over the long horizon. This Policy Portfolio is the main driver of returns over the long term, and is approved by the Board. The Policy Portfolio has also been simplified from 13 asset classes previously to 6 core asset classes.

- Third, the **‘Active Portfolio’** of skill-based strategies, adopted by GIC management within risk limits set by the Board. This Active Portfolio seeks to outperform the Policy Portfolio. These skill-based strategies involve selecting investment opportunities within each asset class, as well as investing in asset classes that are not contained in the simplified Policy Portfolio and cross-asset class strategies.

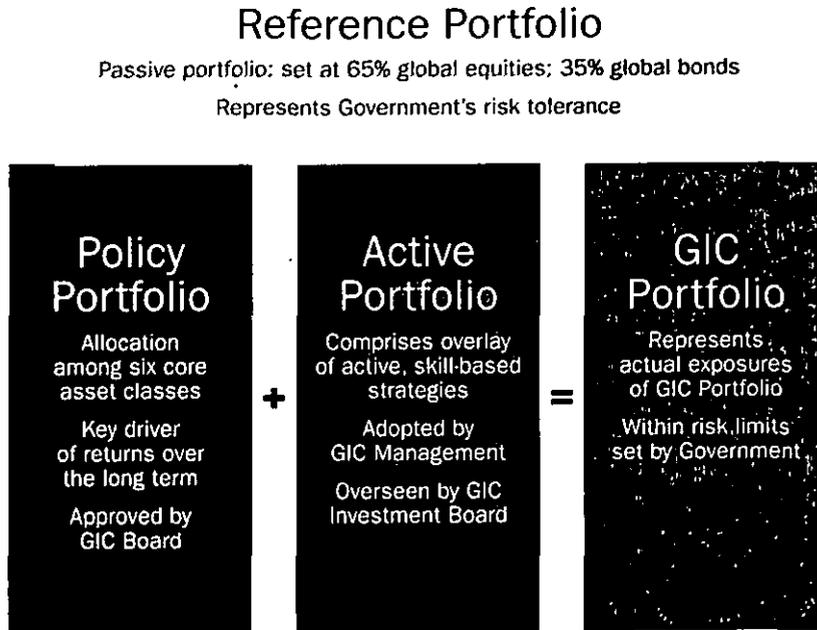
The new investment framework clearly sets out responsibilities across GIC, from investment professionals to the Board. Figure 3 illustrates.

In essence, within the risk tolerance limits defined by the Reference Portfolio, GIC aims to achieve better long-term returns than can be attained through investing passively i.e. “beta” returns⁴. The GIC Portfolio is principally shaped by the Policy Portfolio, but allows for an active overlay of management strategies. The new framework distinguishes clearly between different drivers of return. The Policy Portfolio focuses on taking systematic risks to achieve higher returns through long-term asset allocation strategies. Separately, the Active Portfolio aims at additional skills-based “alpha” returns.

³ The group of experts comprises Mr Leonard Baker, Partner, Sutter Hill Ventures; Mr John Ilkiv, former Senior Vice President of Portfolio Design and Risk Management, Canada Pension Plan Investment Board; Mr Knut Kjær, former CEO, Norges Bank Investment Management; Mr Mark Kritzman, Managing Partner & CIO, Windham Capital Management; Dr Martin Leibowitz, former CIO, TIAA-CREF; Dr Robert Litterman, former Chairman, Goldman Sachs Asset Management Quantitative Investment Strategies Group; Mr Howard Marks, Chairman, Oaktree Capital Management; and Mr Brian Singer, former head of UBS Global Investment Solutions.

⁴ Beta is the return of the portfolio that can be attributed to overall market returns. It reflects the return for taking market or systematic risks. Alpha is the return of the portfolio that is a result of investment management skill. It reflects the return for taking on idiosyncratic or non-systematic risks.

Figure 3 – New Investment Framework



REFERENCE PORTFOLIO

Passive market index

The Reference Portfolio that has been adopted comprises 65% global equities and 35% global bonds⁵. It is a generally accepted passive alternative for a large global investor such as GIC. It is consistent with the Government's mandate for GIC, to secure a reasonable rate of return above global inflation over the long term, without taking excessive risk.

The proportion of equities versus bonds broadly determines how much of a decline a portfolio could face in times of market stress: the greater the proportion of equities, the higher the decline. At the same time, the higher

the proportion of bonds, the lower the likely return of the portfolio over the long term. For example, looking back at the last half a century, a 65:35 global portfolio would have experienced losses of 20% to 30% over rolling three-year periods during periods of market stress such as the Tech Bubble Crash (2001-03) and Global Financial Crisis (2008-09)⁶. These declines were not permanent, however. Over periods varying from the last 10 to 50 years, therefore, the 65:35 global portfolio has reflected a level of risk that has materialised in some significant downturns, but which has also enabled it to obtain good long-term returns⁷.

However, the Reference Portfolio is not a short-term benchmark for GIC.

In fact, GIC can only benefit from long-term investing if it is prepared to tolerate short-term losses or underperformance relative to the market indices from time to time. As discussed in the next section, GIC's investment strategy therefore is not to track the 65:35 global portfolio but to invest in asset classes that generate returns over the long term. It may also take a contrarian stance when markets are at extremes. Its strategies would necessarily mean deviations from 65:35 global portfolio in the short term.

POLICY PORTFOLIO

Key investment driver

The Policy Portfolio remains the central component of the investment framework. The Policy Portfolio aims at achieving superior returns through diversification and careful portfolio construction that takes into account the way different asset classes respond to possible economic environment. However, diversification in the previous Policy Portfolio had led to the adoption of 13 asset classes. In adding new asset classes, it effectively included both long-term drivers of return and short-term, skills-based strategies.

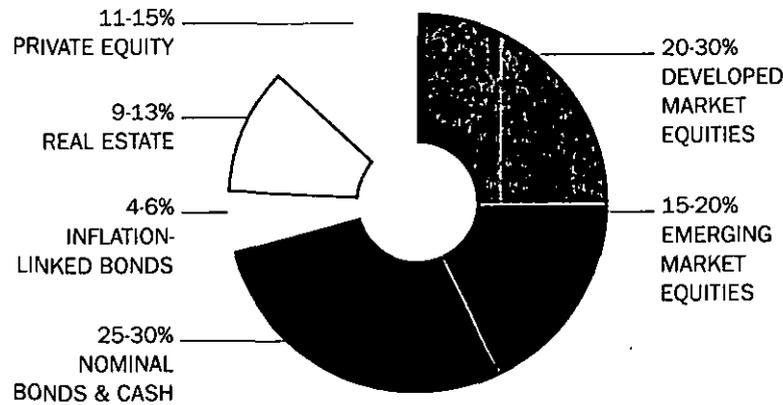
The revised Policy Portfolio has been simplified to focus on six core asset classes: developed market equities, emerging market equities, nominal bonds and cash, inflation-linked bonds, private equity and real estate (Figure 4). These asset classes represent the key systematic or market risks, and encapsulate the bulk of the risk and return potential of the GIC Portfolio.

⁵ 65% MSCI All Country World Equity Index, 35% Barclays Global Aggregate Fixed Income Index.

⁶ Peak-to-trough losses are even more significant, in the order of 40%. Based on a series constructed from MSCI All Country World Equity and Barclays Global Aggregate Indices from 1988 and Shiller data for earlier years.

⁷ The 10-, 20-, 30-, 40- and 50-year returns are 8.6%, 7.2%, 8.5%, 8.4% and 8.1% respectively.

Figure 4 – Policy Portfolio



The Policy Portfolio is not intended to be adjusted frequently and in particular, not in response to market cycles. However, it may be reviewed from time to time to take into account fundamental, structural changes in the global investment environment, for example, a secular shift in expected returns in a particular asset class or geographical region.

Further, adhering to a long-term Policy Portfolio enables GIC to take advantage of time-varying risk premia. This does not mean tactical asset allocation based on market timing. There are many market participants who seek to outperform through market timing, but their track records are varied and very few have been able to add value consistently. As a long-term investor, GIC does not see itself as a tactical asset allocation manager. However, GIC has a facility to change its asset allocation over the medium term in response to extreme market conditions⁸.

The main means by which GIC takes advantage of time-varying nature of risk premia is a disciplined rebalancing approach to the long-term asset mix. This involves systematically buying more of the asset which has fallen in value, and selling some of the asset which has risen in value to keep the asset mix steady over time. For example, when an asset class such as equities does particularly well, and is likely to mean revert, the rebalancing rule compels investors to sell. Conversely, when equities do particularly poorly such as after a crash, rebalancing calls for increasing holdings of the undervalued assets. Numerous studies have shown that in the long run, a portfolio that is rebalanced regularly to its predefined target allocations tends to outperform a portfolio whose allocations are allowed to drift.

ACTIVE PORTFOLIO

Comprises skill-based strategies

The GIC Board approves the Policy Portfolio, taking into consideration

recommendations by GIC management. It also provides the management latitude to adopt active investment strategies aimed at adding value to the Policy Portfolio. These active strategies are limited by a risk budget set by the GIC Board.

This overall risk budget is allocated among the active strategies by management. However, unlike the previous approach where active strategies were confined within the narrow confines of individual asset classes, the revised approach allows strategies to be funded by a combination of asset classes. This effectively breaks down the asset class silos.

These skill-based active strategies must do better than their cost of capital. As these strategies are not part of the Policy Portfolio, they will require funding. The natural source of funding is the sale of asset classes in the Policy Portfolio. These funding asset classes are chosen because they reflect similar risk characteristics to the active strategy. For example, strategies designed to outperform public equities are funded from the corresponding public equity holdings in the Policy Portfolio. More complicated will be strategies such as credit or infrastructure that do not have natural counterparts in the Policy Portfolio. Nevertheless, while the investments might appear different on the surface, their underlying risk and return drivers can be explained by the six core asset classes in the Policy Portfolio. For investments in credit instruments, it would be a combination of bonds and equities; for infrastructure, a combination of real estate, bonds, and equities.

⁸ For example, GIC had de-risked the public equities portfolio arising from our concern about equity overvaluation in the euphoric market environment of early 2007. We reduced public equities by more than 10% over the period July 2007 to September 2008, as a precautionary strategy that helped the portfolio avoid a larger loss in the ensuing bear market. In early 2009, we decided this defensive posture was no longer warranted given the market developments, and had restored public equities to pre-crisis levels.

In effect, an active strategy replaces a policy exposure with a value-adding strategy or investment opportunity. The sale of the funding assets represents an opportunity cost, which must be made up by the value-adding activity. To account for this properly, each strategy is assigned a cost of capital derived from the expected return of its funding assets plus other premia for additional risk undertaken.

Governance of the New Investment Framework

The new investment framework provides added clarity and focus in GIC's investment strategies. It clearly defines the different risk and return drivers for GIC over the long term, and further clarifies the responsibilities of the GIC Board and management.

The framework starts with the passive 65:35 Reference Portfolio which reflects the Government's mandate to GIC: to provide a sustainable real rate of return over the long term while not taking on excessive risk. This Reference Portfolio reflects the amount of risk that Government is prepared for the GIC to take in its long-term investment strategies.

Given this mandate, the GIC Board decides on a Policy Portfolio that meets the risk constraints represented by the Reference Portfolio but aims to deliver superior long-term returns. While the Policy Portfolio will differ in performance from the Reference Portfolio over the short term, the long-term aim is for better risk-adjusted returns.

	Responsibility
GIC Board	Approves Policy Portfolio and active risk budget
Investment Strategies Committee	Reviews GIC management's recommendations on Policy Portfolio and active risk budget
Investment Board	Oversees GIC management's active strategies
GIC management	Recommends Policy Portfolio and constructs Active Portfolio
Investment teams	Add value through implementation of Policy Portfolio and active strategies

The GIC Board allows the management to deviate from the Policy Portfolio to further add value through active, skill-based strategies. This Active Portfolio is controlled by an explicit active risk budget, and overseen by a separate Investment Board (IB). The GIC management is responsible for the overall performance of this Active Portfolio relative to the Policy Portfolio. The success of these active strategies will depend on the management team and investment professionals who undertake these investments.

The IB was formed in April 2013 to provide additional and independent oversight on GIC's active investment management and process. It comprises individuals drawn from the private sector, who collectively bring a wealth of experience in different types of investments in a range of geographies. Membership of the IB is covered in the Governance chapter of this Report. One of the roles of the IB is to ensure that GIC invests in a sound and disciplined manner. Additionally, the IB ensures that

GIC does not take on undue headline risk in our pursuit of good investment opportunities. As a large investor, GIC will inevitably have significant positions in certain companies. Special attention will be paid to large investments that go beyond the exposures as represented by market benchmarks.

The table above summarises the responsibilities within GIC under the new investment framework.

Taken as a whole, the new investment framework capitalises on GIC's core strengths: the ability to take a long-term investment perspective; a global presence; capabilities to invest in cross-asset opportunities; a skilled and experienced team; and a governance structure that distinguishes clearly the responsibilities of the GIC Board and management. It also enables GIC to be more responsive to the changing investment environment after the global financial crisis.

GOVERNANCE

The Ministry of Finance (MOF), representing the Government, sets the investment objective, risk parameters and investment horizon for the portfolio. It ensures that a competent board of directors is in place.

The GIC Board assumes ultimate responsibility for asset allocation and the performance of the portfolio. Management executes investment strategies and regularly discusses overall portfolio performance with the GIC Board. All of GIC's financial transactions are reported to the Accountant-General of Singapore. The management also reports to MOF on the risk and performance of the portfolio each year.

GOVERNANCE

INTRODUCTION

GIC was incorporated in 1981 under the Singapore Companies Act and is wholly owned by the Government of Singapore. It was set up with the sole purpose of managing Singapore's foreign reserves. GIC invests well over US\$100 billion internationally *in a wide range of asset classes and instruments*. As a rule, GIC invests outside Singapore.

SOURCE AND PURPOSE OF FUNDS

The fundamental sources of the Singapore Government's funds are sustained balance of payments surpluses and accumulated national savings. The portfolio has grown as a result of investment returns.

With no natural resources to keep the country going in times of crisis or severe economic dislocation, these reserves are a nest egg, a safeguard against unforeseen circumstances, and a means to mitigate shocks that may hit Singapore's small and open economy.

The reserves also provide a stream of returns that can be spent or invested for the benefit of present and future generations of Singaporeans. The Government is allowed to spend part of the investment returns on its reserves. GIC's mission is thus to preserve and enhance the international purchasing power of these reserves.

The Constitution of Singapore stipulates a spending rule that determines how much of the investment returns on its net assets the Government can spend. The spending rule allows up to 50% of the long-term expected real return on the net assets managed by GIC and those owned by the Monetary Authority of Singapore, to be taken into the Government's annual budget.

THE GOVERNMENT

An Investment Mandate from the Government to GIC sets out the terms of appointment, investment objectives, investment horizon, risk parameters and investment guidelines for managing the portfolio.

The Government, which is represented by the Ministry of Finance in its dealings with GIC, neither directs nor interferes in the company's investment decisions. It holds the GIC Board accountable for the overall portfolio performance.

GIC provides monthly and quarterly reports to the Accountant-General of Singapore. These reports list the investment transactions executed, as well as the holdings and bank account balances. The reports provide detailed performance and risk analytics as well as the distribution of the portfolio by asset class, country and currency. Once a year, the management formally meets the Minister for Finance and his officials to report on the risk and performance of the portfolio in the preceding financial year.

THE PRESIDENT OF SINGAPORE

Since 1991, the Constitution of Singapore has provided for the President of Singapore to be elected directly by Singaporeans every six years and to exercise discretionary powers to protect the reserves not accumulated by a government during its current term of office. Singapore's President is independent of the Government and must not be a member of any political party. This system aims to ensure that the government of the day cannot spend more than what it has earned during its term of office, or draw on past reserves, without the approval of the President.

GIC is accountable in various key areas to the President of Singapore as a Fifth Schedule company. The Constitution empowers him to obtain information to enable him to safeguard the country's reserves. No one may be appointed to or removed from the GIC Board without his concurrence. This additional layer of control ensures that the company appoints only people of integrity who are competent and who *can be trusted to safeguard these assets*.

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THE AUDITOR-GENERAL OF SINGAPORE

The Auditor-General, who is appointed by the President of Singapore, submits an annual report to the President and Parliament on his audit of the Government and other bodies managing public funds.

In addition to being audited by GIC's internal audit, the main companies in the GIC group and the Government's portfolio managed by GIC are independently audited by the Auditor-General of Singapore.

Other companies in the group and the investment holding companies are audited by public accounting firms.

THE GIC BOARD

The GIC Board is ultimately responsible for asset allocation and for the performance of the portfolio under management. It is accountable to the Government for the effective management of the reserves in accordance with the Investment Mandate.

BOARD COMMITTEES

The GIC Board is supported by the Investment Strategies Committee, Investment Board, Risk Committee, Audit Committee and the Human Resource and Organization Committee.

Investment Strategies Committee

The investment strategies committee reviews and critically evaluates management's recommendations on asset allocation. The management reports to this committee on the performance of the portfolio. The committee does not decide on specific deals or how policies should be implemented.

Investment Board

The investment board assists the GIC Board in its oversight of GIC's investment process, with particular attention to large investments. It takes the place of the investment review committee with an expanded membership comprising individuals who have had extensive experience in investing.

Risk Committee

The risk committee advises the GIC Board on risk matters and provides broad supervision on the effectiveness of risk management policies and practices. It reviews GIC's risk profile as well as significant risk issues arising from operations and investments.

Audit Committee

The audit committee reviews and assesses the adequacy and effectiveness of the system of internal controls, including financial, operational and compliance controls, and risk management policies and procedures. It also supervises and evaluates the effectiveness of the internal audit function. The committee reviews the integrity of the financial reporting process and other related disclosures for GIC companies, significant ethics violations, impact of changes in the regulatory and legal environment, and issues of fraud and financial losses.

Human Resource and Organization Committee

The human resource and organization committee evaluates and approves GIC's compensation policies for the group and senior management, succession planning for key man appointments and oversees organizational development.

INTERNATIONAL ADVISORY BOARD

The international advisory board provides the GIC Board, board committees and management with global and regional perspectives on geopolitical, economic and market developments. It offers advice on a range of investment-related matters, in particular, global investment trends, emerging asset classes and new growth opportunities.

BOARDS OF ASSET MANAGEMENT COMPANIES

All three asset management companies – GIC Asset Management, GIC Real Estate and GIC Special Investments – are wholly-owned subsidiaries responsible for investing the portfolio within the guidelines set out in the Investment Mandate to GIC. Their boards oversee investment strategies of the asset classes under management and review operations of the companies within group-wide policies.

GIC MANAGEMENT

The management structure is relatively flat, with clear reporting lines and accountability.

GOVERNANCE

Group Executive Committee

The group executive committee, the highest management body in GIC, brings together the group's functional and investment heads. It deliberates on management proposals for investment and risk issues before these are submitted to the relevant board committees and the GIC Board. This committee also reviews and approves major business, governance and policy issues of significance and criticality to GIC which apply to the entire group.

Group Management Committee

The group management committee oversees organizational management initiatives, business planning and personnel matters including succession planning, talent development, compensation and performance management processes. The committee is accountable to the group executive committee.

Group Investment Committee

The group investment committee is the senior management forum responsible for the performance and risk of the total GIC portfolio. The committee reviews and discusses investment policy decisions, and proposes appropriate recommendations to the investment strategies committee and GIC Board. The committee is accountable to the group executive committee.

Group Risk Committee

The group risk committee is a platform that provides oversight for the risk management policies and practices for the GIC Group. The committee also acts as a forum for the chief risk officer to solicit views on the strategic risk management issues that would enable him to carry out his duties.

The following chart summarises the accountability of the GIC Board, International Advisory Board and board committees.

		Terms of Reference
GIC Board:		Responsible for the overall performance of GIC, including organizational excellence and portfolio performance; ensures that GIC adheres to the risk and return objectives set by the client for funds managed by GIC. Does not approve specific investment transactions.
International Advisory Board		Provides views on market developments generally and in particular the medium to long term outlook for investment opportunities around the world.
Board Committees	Investment Strategies Committee	Assists the GIC Board in its oversight of the overall portfolio performance; recommends the key drivers for GIC's return and risk outcomes; does not approve specific investment transactions.
	Investment Board	Assists the GIC Board in its oversight of GIC's investment process, with particular attention to large investments.
	Risk Committee	Oversees the effectiveness of risk management policies and practices in the GIC group.
	Audit Committee	Looks into the effectiveness of the internal control systems for safeguarding company's assets and client's investment portfolios; reviews the integrity of the financial reporting process, significant ethics violations, compliance with regulatory and legal requirements, and issues of fraud and financial losses.
	Human Resource and Organization Committee	Oversees organisational matters in GIC, including compensation policies, talent development, succession planning, and organisational development.

GIC BOARD AND BOARD COMMITTEES

BOARD OF DIRECTORS

Chairman

LEE HSIEN LOONG

Directors

LIM HNG KIANG

THARMAN SHANMUGARATNAM

TEO CHEE HEAN

HENG SWEE KEAT

ANG KONG HUA

PETER SEAH LIM HUAT

CHEW CHOON SENG

RAYMOND LIM SIANG KEAT

HSIEH FU HUA

LOH BOON CHYE

GAUTAM BANERJEE

LIM SIONG GUAN

LIM CHOW KIAT

Senior Advisor

LEE KUAN YEW

INVESTMENT STRATEGIES COMMITTEE

Chairman

THARMAN SHANMUGARATNAM

Deputy Chairman

PETER SEAH LIM HUAT

Members

LIM HNG KIANG

ANG KONG HUA

HENG SWEE KEAT

S ISWARAN

Advisors

DR MARTIN L LEIBOWITZ

G LEONARD BAKER JR

KNUT KJAER

NG KOK SONG

DAVID DENISON

INVESTMENT BOARD

Chairman

ANG KONG HUA

Members

G LEONARD BAKER JR

LÉON BRESSLER

DAVID DENISON

HSIEH FU HUA

QUAH WEE GHEE

RISK COMMITTEE

Chairman

LIM HNG KIANG

Members

SECK WAI KWONG

RAYMOND LIM SIANG KEAT

LOH BOON CHYE

Advisor

DR MARTIN L LEIBOWITZ

AUDIT COMMITTEE

Chairman

CHEW CHOON SENG

Members

RAYMOND LIM SIANG KEAT

LOH BOON CHYE

GAUTAM BANERJEE

HUMAN RESOURCE AND ORGANIZATION COMMITTEE

Chairman

PETER SEAH LIM HUAT

Members

CHEW CHOON SENG

HSIEH FU HUA

GAUTAM BANERJEE

INTERNATIONAL ADVISORY BOARD

Chairman

LEE KUAN YEW

Deputy Chairman

TEO CHEE HEAN

Members

G LEONARD BAKER JR

LÉON BRESSLER

STEVEN J GREEN

DR MARTIN L LEIBOWITZ

DEEPAK PAREKH

KNUT KJAER

NG KOK SONG

DAVID DENISON

GROUP COMMITTEES

GROUP EXECUTIVE COMMITTEE

Chairman

LIM SIONG GUAN

Group President

Members

LIM CHOW KIAT

Group Chief Investment Officer

LIM KEE CHONG

Deputy Group Chief Investment Officer

DR JEFFREY JAENSUBHAKIJ

President, GIC Asset Management

GOH KOK HUAT

President, GIC Real Estate

TAY LIM HOCK

President, GIC Special Investments

DR CHIA TAI TEE

Chief Risk Officer

DR LESLIE TEO ENG SIPP

Director, Economics and Investment Strategy and Chief Economist

Advisor

NG KOK SONG

GROUP MANAGEMENT COMMITTEE

Chairman

LIM SIONG GUAN

Group President

Members

LIM CHOW KIAT

Group Chief Investment Officer

LIM KEE CHONG

Deputy Group Chief Investment Officer

DR JEFFREY JAENSUBHAKIJ

President, GIC Asset Management

GOH KOK HUAT

President, GIC Real Estate

TAY LIM HOCK

President, GIC Special Investments

DR CHIA TAI TEE

Chief Risk Officer

DR LESLIE TEO ENG SIPP

Director, Economics and Investment Strategy and Chief Economist

GROUP INVESTMENT COMMITTEE

Chairman

LIM CHOW KIAT

Group Chief Investment Officer

Members

LIM KEE CHONG

Deputy Group Chief Investment Officer

DR JEFFREY JAENSUBHAKIJ

President, GIC Asset Management

GOH KOK HUAT

President, GIC Real Estate

TAY LIM HOCK

President, GIC Special Investments

DR CHIA TAI TEE

Chief Risk Officer

DR LESLIE TEO ENG SIPP

Director, Economics and Investment Strategy and Chief Economist

GROUP RISK COMMITTEE

Chairman

DR CHIA TAI TEE

Chief Risk Officer

Members

PANG WAI YIN

Director, Risk and Performance Management

CHUA LEE MING

General Counsel

DEANNA ONG AUN NEE

Director, Finance

JOYCE TAN SIEW PHENG

Director, Investment Operations

ONG HIAN LEONG

Director, Technology

DR LESLIE TEO ENG SIPP

Director, Economics and Investment Strategy and Chief Economist

KWOK WAI KEONG

Global Head, Asset Management, Real Estate

NG KIN SZE

Global Head, Portfolio, Strategy & Risk Group, Special Investments

CHOY SIEW KAI

Head, Investment Services, Equities

LEONG WING KWAN

Head, Portfolio Analysis & Investment Services, Fixed Income

PROFILES

LEE HSIEN LOONG

Chairman



Lee Hsien Loong has been Prime Minister of Singapore since 2004. Prior to that, he was Deputy Prime Minister with responsibilities for economic and civil service matters. He has also held ministerial appointments in Trade and Industry, Defence and Finance, and chaired the Monetary Authority of Singapore from 1998 to 2004. Before entering politics, he was a Brigadier-General in the Singapore Armed Forces. He studied at Cambridge University and the Harvard Kennedy School, Harvard University.

LIM HNG KIANG



An engineering graduate of Cambridge University, Lim Hng Kiang spent nine years in the Singapore Armed Forces where he held both command and staff positions. In 1985, he earned a master's degree in Public Administration at Harvard University and returned to serve as the deputy secretary in the Defence and National Development ministries before entering politics in 1991. He held Cabinet posts in National Development, Health, Foreign Affairs, Finance and the Prime Minister's Office before his appointment as Minister for Trade and Industry in 2004.

THARMAN SHANMUGARATNAM



Tharman Shanmugaratnam has spent his professional and political years in the fields of economic/financial policy and education. He was chief executive of the Monetary Authority of Singapore before he entered politics in 2001. He served as Minister for Education for five years, and has been Minister for Finance since December 2007. He was appointed Deputy Prime Minister in May 2011. He was also appointed Chairman of the International Monetary and Financial Committee, the policy steering committee of the IMF, in March 2011. He obtained undergraduate and masters degrees in Economics from the LSE and Cambridge University, and a masters in Public Administration at Harvard University.

TEO CHEE HEAN



Teo Chee Hean, Deputy Prime Minister of Singapore since 2009, had held cabinet posts in Defence, Education, Finance, Environment and Communications, before his current appointment as the Coordinating Minister for National Security, Minister for Home Affairs, and Minister in charge of the Civil Service. He also oversees the National Population and Talent Division, and the National Climate Change Secretariat. Prior to entering politics in 1992, he was a Rear Admiral in the Singapore Armed Forces. A President's Scholar and a Singapore Armed Forces Scholar, he studied at the University of Manchester. He had a Masters in Computing Science from the Imperial College and a Masters in Public Administration from Harvard University, where he was named a Littauer Fellow.

HENG SWEE KEAT



Mr Heng Swee Keat was appointed the Minister for Education on 21 May 2011. Prior to that, he was the managing director of the Monetary Authority of Singapore, Permanent Secretary of the Ministry of Trade and Industry, chief executive officer of the Trade Development Board and Principal Private Secretary to the then Senior Minister Lee Kuan Yew. He had also served in various positions in the Singapore Civil Service, and was awarded the Gold Medal in Public Administration and the Meritorious Medal for his contributions to the public service. Mr Heng has a master's degree in Economics from the Cambridge University and a master's degree in Public Administration from the Harvard University.

ANG KONG HUA



Mr Ang Kong Hua started his career at the Economic Development Board after graduating from the University of Hull in the UK. He joined DBS Bank at its inception in 1968 and pioneered its investment banking division. For 28 years since 1974, he was the CEO of NSL Ltd (formerly NatSteel Ltd) before retiring in 2003 and stayed as its Executive Director till 2010. He currently serves as the Chairman of Sembcorp Industries Ltd and Global Logistic Properties Limited. He was formerly Chairman of Singapore Telecommunications and Singapore Post, Vice Chairman of Neptune Orient Lines Ltd and Director of DBS Bank, CIMC Raffles Offshore (Singapore) Limited and k1 Ventures Limited.

PROFILES

PETER SEAH
LIM HUAT



Chairman of DBS Group Holdings and Singapore Health Services, Peter Seah Lim Huat serves on the boards of many commercial enterprises in Singapore and overseas such as *CapitalLand*. A graduate of the former University of Singapore, he held several senior positions in his 24-year career with the Overseas Union Bank before retiring as its vice chairman and chief executive officer in 2001. He was president and chief executive officer of the Singapore Technologies Group from 2001 to 2004.

CHEW CHOON SENG



Chew Choon Seng has been a member of the board of GIC since January 2004. Until his retirement at the end of 2010, he was the CEO of Singapore Airlines for over seven years. In January 2011, he became the Chairman of the Singapore Exchange, of which he has been director since December 2004, and was also appointed Chairman of the Singapore Tourism Board. An engineer by training, he graduated from the then University of Singapore and from Imperial College, London.

RAYMOND LIM
SIANG KEAT



Raymond Lim is Chairman of APS Asset Management and Senior Advisor to the Swire Group. He is also a director of several companies including Hong Leong Finance, Raffles Medical Group and Insurance Australia Group. A Member of the Singapore Parliament since 2001, Mr. Lim has held various ministerial appointments in the Singapore Government including Foreign Affairs, Trade & Industry, Entrepreneurship, Finance and Transport from December 2001 to May 2011. Prior to entering politics in 2001, Mr. Lim held various senior positions in the financial industry including as a Managing Director of Temasek Holdings, Chief Executive Officer of DBS Securities and Group Chief Economist of ABN AMRO Asia Securities.

HSIEH FU HUA



Hsieh Fu Hua is currently adviser to PrimePartners Group, which he co-founded, the Non-Executive Chairman of United Overseas Bank, a director of Tiger Airways Holdings Limited, and President of the National Council of Social Services. From 2003 to 2009, he was CEO and a director of the Singapore Exchange. His career has been in merchant banking and capital markets in Asia. He joined Morgan Grenfell Asia Holdings in 1974, after graduating from the former University of Singapore, and rose to become its chief executive. He was also group managing director of BNP Prime Peregrine Group in Hong Kong, a joint venture Asian investment banking arm of BNP founded by PrimePartners.

LOH BOON CHYE



Loh Boon Chye is deputy president for Asia Pacific and head of Asia Pacific Global Markets at Bank of America Merrill Lynch. Additionally, he is the country executive for Singapore and South East Asia and a member of the Asia Pacific Executive Committee.

He heads the Global Markets Group for Asia Pacific and is also responsible for the Southeast Asian region. Previously, he spent 17 years with Deutsche Bank, most recently as Head of Corporate and Investment Bank, Asia Pacific. He has been involved in numerous industry bodies in the past, most notably as *immediate Past Chairman of the Singapore Foreign Exchange Market Committee* and as a non-independent director at the Singapore Exchange between 2004 and 2012. Boon Chye graduated in Mechanical Engineering from the National University of Singapore.

GAUTAM BANERJEE



Gautam Banerjee is Chairman of Blackstone Singapore. He was Executive Chairman of PricewaterhouseCoopers (PwC) Singapore until his retirement on 31 December 2012. He spent over 30 years with the firm in various leadership roles in Singapore, India and East Asia. He serves as a Vice Chairman of the Singapore Business Federation and is a Board member of the Economic Development Board, the APEC Business Advisory Council, Yale-NUS College and Singapore Airlines Limited. He is a fellow of the Institute of Chartered Accountants in England and Wales and the Institute of Certified Public Accountants in Singapore. He has a Bachelor of Science (Honours) degree in Accounting and Financial Analysis from the University of Warwick.

PROFILES

LEE KUAN YEW

Senior Advisor



Born in 1923, Lee Kuan Yew studied in Raffles Institution and Raffles College. A graduate of Fitzwilliam College, Cambridge University; and Barrister of the Middle Temple in 1950. He practised law until 1959 when he became Singapore's first Prime Minister. He served successive terms until he resigned in 1990, when he was appointed Senior Minister by Prime Minister Goh Chok Tong. He was appointed Minister Mentor by Prime Minister Lee Hsien Loong in 2004, and served in that position until May 2011. He was chairman of GIC since its inception till May 2011. He currently is Senior Advisor to the GIC.

S ISWARAN



Mr S Iswaran, currently the Minister in the Prime Minister's Office and Second Minister for Home Affairs and Trade & Industry, Singapore, began his political career in 1997. Prior to his current appointment in 2011, Mr Iswaran had served in both the public and private sectors including the National Trade Union Congress as Director for Special Projects; the Singapore Indian Development Association as CEO; and most recently, Temasek Holdings where he was Managing Director focusing on leveraged buy-outs and high tech/ biotech investments.

SECK WAI KWONG



Seck Wai Kwong joined State Street Bank on 1 Sep 2011 as its executive vice president and Head of Global Services and Global Markets, Asia Pacific. He has held senior executive positions in the Monetary Authority of Singapore, the Government of Singapore Investment Corporation, Lehman Brothers and DBS Bank. Until June 2011, he was the chief financial officer of the Singapore Exchange for eight years. A graduate from Monash University with first class honours in Economics, he has a master's degree in business administration from the Wharton School.

QUAH WEE GHEE



Prior to joining GIC, Quah Wee Ghee worked in IBM after graduating from the National University of Singapore. He started his career in GIC as an investment officer and became director of the fixed income department in 1996. He was also tasked with setting up the technology department in 1998. He was director of the equities department during the period 2003 to 2010 and was appointed President of GIC Asset Management in 2007 which he served till June 2011. He is also a member of the Central Provident Fund Board and the SingHealth Foundation Board.

NG KOK SONG



Ng Kok Song is Chair of GIC's Global Investments and member of International Advisory Board. The former group chief investment officer of GIC, has been involved with the investment of Singapore's foreign reserves for 40 years, beginning with the Ministry of Finance (1970-1971), then the Monetary Authority of Singapore (1972-1986) and at GIC since 1986. He was the founder chairman of the Singapore International Monetary Exchange in 1983, which is now part of the Singapore Exchange. He is also the founder chairman of the Wealth Management Institute, a board member of the Singapore Labour Foundation, and an adviser to Agency France Tresor.

G LEONARD BAKER JR



A partner since 1973 in Sutter Hill Ventures, Silicon Valley's oldest venture capital firm, G Leonard Baker Jr. is also a director of a number of early stage companies. He is a former trustee of Yale University, where he chaired the Finance Committee. He continues to serve on the Yale Investment Committee and the Advisory Board of Yale's School of Management. He is a board member of the Environmental Defense Fund, serves as an advisor on the David and Lucile Packard Foundation Investment Committee, and is also an advisor to Alta Advisors, a London family office. He is a former member of the Advisory Council of the Stanford Graduate School of Business.

PROFILES

LÉON BRESSLER



Léon Bressler is a partner of Perella Weinberg Partners, a private financial services firm providing asset management and corporate advisory services. He was chairman and CEO of *Unibail*, a leading French publicly listed property company from 1992 to 2006. From 1984 to 1989, he served as chairman of the executive board of Midland Bank SA, and was a managing partner of Worms & Cie from 1991 to 1996.

STEVEN J GREEN



Steven J Green is chairman and CEO of Greenstreet Partners, a private merchant bank, and chairman and CEO of k1 Ventures Limited, an investment company in Singapore. He serves on the boards of the University of Miami and the US Chamber of Commerce, and is Singapore's Honorary Consul-General in Miami. He was chairman and CEO of the Samsonite Corporation from 1988 to 1996, and US Ambassador to Singapore from 1997 to 2001.

DR MARTIN L
LEIBOWITZ



A managing director with Morgan Stanley Research's global strategy team, Dr Martin Leibowitz was vice chairman and chief investment officer of TIAA-CREF from 1995 to 2004. A graduate of the University of Chicago with a PhD from the Courant Institute of New York University, he has received wide recognition for his writings and his contribution to the financial industry. He currently serves on the investment advisory committees of the Harvard Management Corporation, Rockefeller Foundation, Carnegie Foundation, and Institute for Advanced Study. He was appointed adviser to the GIC Board Investment Committee in 2009.

DEEPAK PAREKH



Deepak Parekh is chairman of the Housing Development Finance Corporation since 1993, having joined the organisation in 1978. Besides being the non-executive chairman of Infrastructure Development Finance Company, Glaxo India Ltd & Burroughs Wellcome (India) Ltd, he also sits on the Board of Castrol India Limited, Hindustan Unilever, Siemens Ltd, Mahindra & Mahindra, Indian Hotels Company and SingTel. He has also been a member of various Committees set up by the Government of India including Chairman of both the Advisory Group for Securities Market Regulation and Expert Committee to look into power sector's reform efforts. Besides winning many awards including being the first international recipient of The Institute of Chartered Accountants in England and Wales' outstanding Achievement Award, he was conferred Padma Bhushan by the Government of India.

KNUT KJAER



Knut Kjaer is founding partner of Trient Asset Management and chairman of FSN Capital Partners. As Chief Executive Officer of Norges Bank Investment Management from its inception in 1997 to 2008, Kjaer was responsible for the operative management of the Norwegian Government Pension Fund and the management of Norway's foreign reserves. He served as President of RiskMetrics Group Inc from 2009 to 2010. He is a member of the Investment Committee at Stichting Pensioenfond ABP; the International Advisory Council of China Investment Corporation and the commission that manages the Irish National Pensions Reserve Fund. Kjaer holds Masters Degrees in Economics and a degree in Political Science from the University of Oslo. He has attended the Advanced Management Program at Harvard Business School.

DAVID DENISON



Mr Denison has extensive experience in the financial services industry, most recently serving as President and Chief Executive Officer of the Canada Pension Plan (CPP) Investment Board from 2005 to 2012. He has held senior positions in the investment, consulting and asset management businesses in Canada, the United States and Europe.

Mr. Denison is a director of Royal Bank of Canada, BCE Inc., and is chair of the boards of Bentall Kennedy and Bridgepoint Health. He also serves on the World Bank Treasury Expert Advisory Committee and the University of Toronto Investment Advisory Committee. Mr Denison earned Bachelor degrees in mathematics and education from the University of Toronto and is a Chartered Accountant and a Fellow of the Institute of Chartered Accountants of Ontario.

PROFILES

LIM SIONG GUAN



Lim Siong Guan, Group President, joined GIC in 2007. He was chairman of the Economic Development Board from October 2006 to June 2009. A former head of the Singapore Civil Service, he was *Permanent Secretary* in the ministries of Defence, Education and Finance and the Prime Minister's Office, and led various major government agencies. He has been an adjunct professor at the Lee Kuan Yew School of Public Policy at the National University of Singapore since March 2005, instructing on leadership and change management in the public sector, and is a Senior Fellow of the Civil Service College.

LIM CHOW KIAT



Lim Chow Kiat is GIC's Group Chief Investment Officer since 1 February 2013. After graduating with first class honours in Accountancy from Nanyang Technological University, Lim Chow Kiat joined GIC in 1993 as a portfolio manager. He developed GIC's investment capability in corporate bonds, and was appointed head of the fixed income, currency and commodities department and deputy president of GIC Asset Management in 2008. He was appointed president (Europe) in 2009, overseeing GIC's investments and relationships in Europe, Africa and the Middle East before his appointment as President of GIC Asset Management in July 2011.

LIM KEE CHONG



Lim Kee Chong is GIC's Deputy Group Chief Investment Officer and Director of Integrated Strategies. He joined GIC in 1987. He was appointed deputy president of GIC Asset Management and the head of global equities in July 2010. He has experience managing Japan equities, European equities, global sector and global equities portfolios. He graduated with an Economics degree from University of Tokyo where he studied under a government scholarship.

DR JEFFREY
JAENSUBHAKIJ



Jeffrey Jaensubhakij was appointed President GIC Asset Management on 1 April 2013. Prior his appointment, he was GIC's President, Europe since 2011 and was responsible for coordinating GIC's investment activities in Europe across public and private asset classes. Dr Jaensubhakij joined GIC in 1998 as a Senior Economist responsible for covering the US economy. He has also had asset allocation portfolio responsibilities as co-head of Asset Allocation Strategy in the Economics and Strategy. From 2003 to 2011, Dr Jaensubhakij was based in GIC's New York Office where he headed the Total Return Equities and the US Equities teams. Dr Jaensubhakij holds a B.A. in Economics from Cambridge University and a Ph.D. in Economics from Stanford University where his research was on foreign portfolio investment and inflation in emerging stock markets.

TAY LIM HOCK



Tay Lim Hock joined GIC Special Investments in 1995, and was involved in private equity investments in Asia. He was the head of the European private equity team in London from 2000 to 2003, and took over as head of the US private equity team in 2003. He became Global Head of the Funds and Co-investment group in 2008, and was appointed deputy president of GIC Special Investments in July 2010 and President in July 2011. Prior to GIC, he worked as an aeronautical engineer with the Republic of Singapore Air Force after graduating from l'Ecole Nationale de l'Aviation Civile (ENAC) in Toulouse, France, with a Masters in aeronautical engineering. He holds an MBA from Nanyang Technological University in Singapore and has completed the Stanford Executive Program.

GOH KOK HUAT



Goh Kok Huat is currently the President of GIC Real Estate. Previously, he heads investment management (Asia) in GIC Real Estate and was appointed its deputy president in July 2010. He joined GIC from Tishman Speyer in New York, where he was managing director of equity capital markets. Prior to that, he was with the Ascendas Group where he held various appointments including COO of the Group, CEO of Ascendas-MGM, CEO of Singapore Operations and CEO of Bangalore IT Park. He spent 10 years in the military and is an Economics graduate of Cambridge University.

PROFILES

DR LESLIE TEO
ENG SIPP



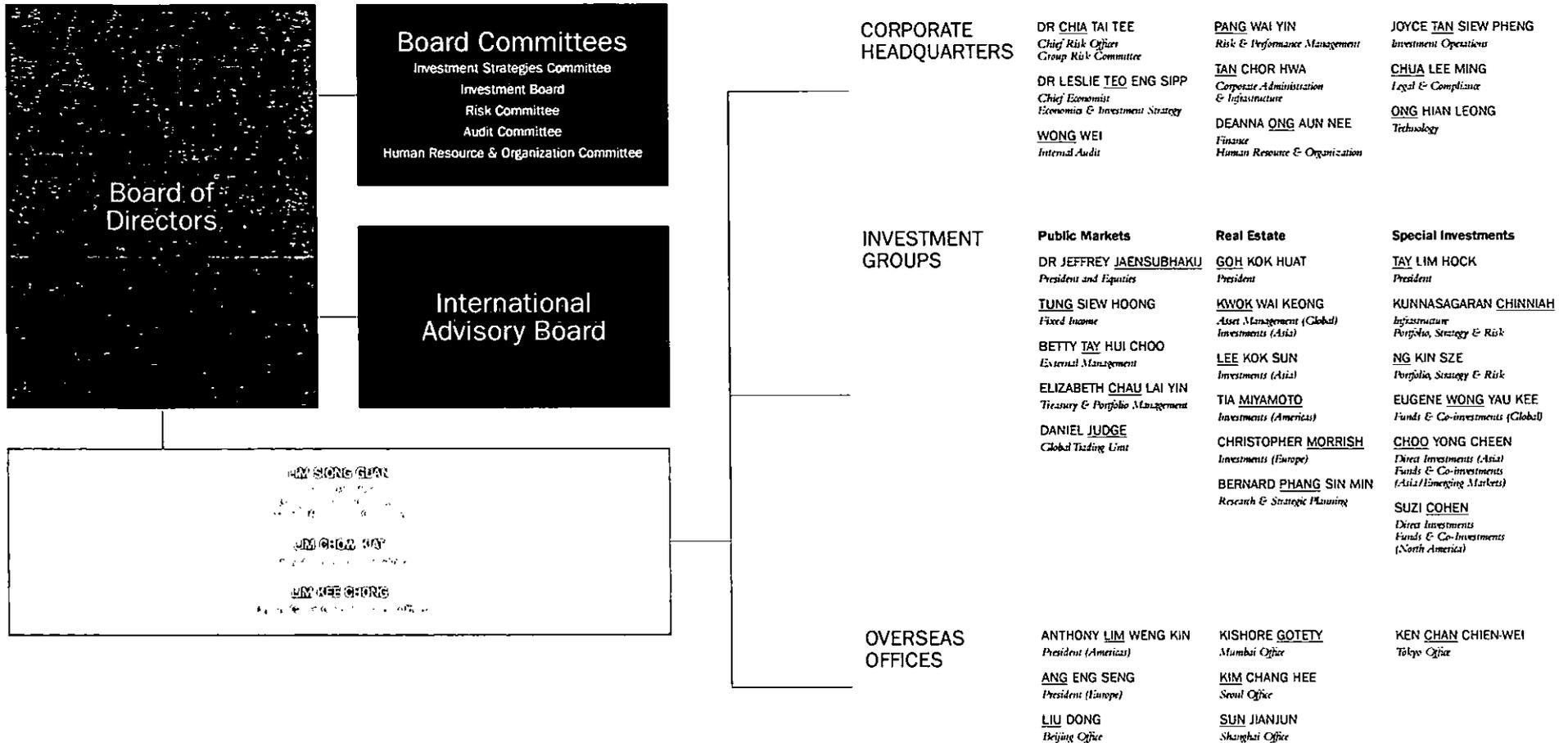
Leslie started his career as an economist at the International Monetary Fund where he held various appointments over 9 years, including Deputy Division Chief and Assistant to the Director of the Asian Department. He also spent a number of years at the Monetary Authority of Singapore working on financial market surveillance and stability issues. Leslie joined GIC as a senior investment manager in the Economics & Strategy department in 2008. He headed the Asian/Emerging Market Research & Strategy team and served as Deputy Director, before his appointment as Deputy Director of the Economics Investment Strategy department (EIS). He was appointed Chief Economist in July 2011 and Director of EIS in February 2012. Leslie is a graduate of the University of Chicago and has a PhD from the University of Rochester.

DR CHIA TAI TEE

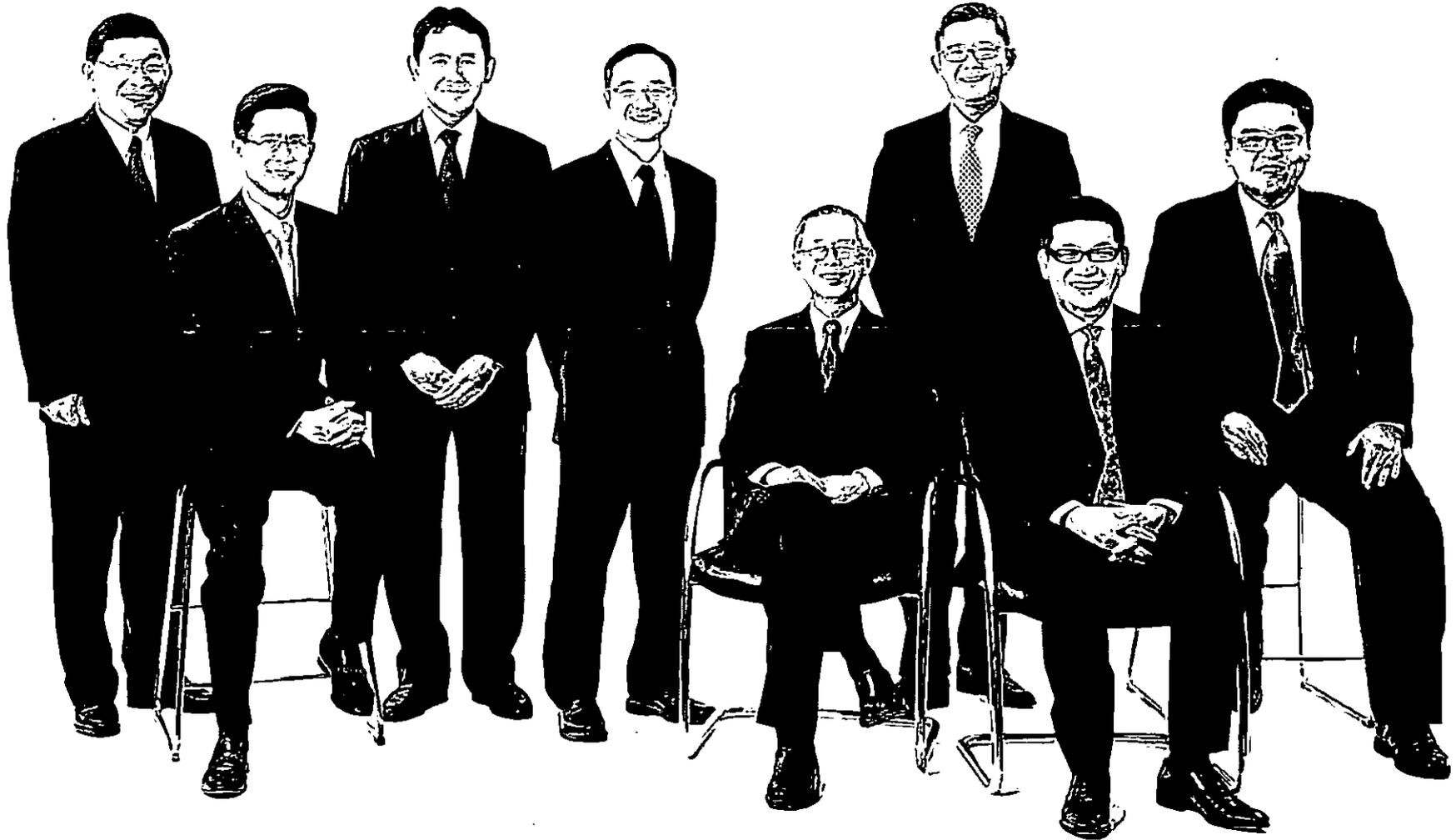


Prior to his appointment as the Chief Risk Officer, Dr Chia Tai Tee was serving as the Deputy Chief Risk Officer and Director of Risk and Performance Management since July 2010. He joined GIC in 1994 and has held various positions in economics and strategy, foreign exchange, and quantitative investments including being the Deputy Director of the investment policy and strategy. He is a member of the People's Association Investment Advisory Committee. He graduated in Economics from University of Adelaide and holds a PhD from Australian National University.

ORGANIZATIONAL STRUCTURE



EXECUTIVE MANAGEMENT



DR CHIA TAI TEE
Chief Risk Officer

TAY LIM HOCK
*President
GIC Special Investments*

LIM KEE CHONG
*Deputy Group Chief
Investment Officer*

DR LESLIE TEO ENG SIPP
*Chief Economist
Director
Economics & Investment Strategy*

LIM SIONG GUAN
Group President

GOH KOK HUAT
*President
GIC Real Estate*

LIM CHOW KIAT
Group Chief Investment Officer

DR JEFFREY JAENSUBHAKUJ
*President
GIC Asset Management*

OUR PEOPLE

Headquartered in Singapore, GIC is a global organization with offices in nine cities worldwide and an international talent pool.

OUR PEOPLE

PEOPLE THE KEY

Our people are key to all that we can accomplish. Their morale *and motivation, their capacity and capability, and their drive* and determination, define our potential and our future. We have more than 1,200 GICians from over 30 nations, making investments in more than 40 countries, and working from 9 offices – Singapore (where we have our headquarters), Beijing, London, Mumbai, New York, San Francisco, Seoul, Shanghai and Tokyo. More than half our investment professionals are non-Singaporeans, most of them working in our overseas offices, where local knowledge and local contacts are critical.

VALUES AND PRINCIPLES

GIC has five core values easily remembered as PRIME – Prudence, Respect, Integrity, Merit and Excellence. And we have 14 principles grouped around the three pillars of Clients First, People The Key and Future Now in The GIC Way. They enunciate thought and behaviour which we believe will yield us sustainable success.

LEADERSHIP CHANGES

We believe in timely renewal of leadership while maintaining continuity in vision and relationships. Mr Ng Kok Song retired as Group Chief Investment Officer in February 2013. Mr Lim Chow Kiat, President of GIC Asset Management, succeeded Mr Ng. Mr Lim Kee Chong, Director of Equities in GIC Asset Management joined him as Deputy Group Chief Investment Officer. We are fortunate that Mr Ng continues to promote and support GIC as our Chair of Global Investments, Advisor to the Board Investment Strategies Committee, Advisor to the Group Executive Committee, and as Director on the Boards of GIC Asset Management Pte Ltd, GIC Real Estate Pte Ltd and GIC Special Investments Pte Ltd.

Dr Jeffrey Jaensubhakij took over from Mr Lim Chow Kiat as President of GIC Asset Management in April 2013, and concurrently takes on Mr Lim Kee Chong's previous appointment as Director of Equities.

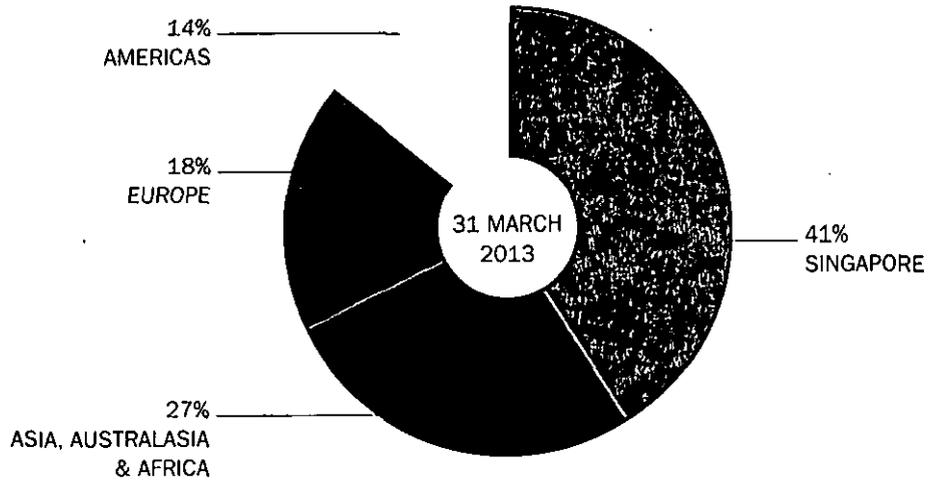
Managing Directors Mr Wan Ismail, Ms Chen Soon Bin, Mr David Dickinson and Mr Michael Simcock retired from GIC on 30 September 2012, 31 March 2013, 30 June 2013 and 25 July 2013 respectively. Four new Managing Directors have been appointed in July 2013 – Mr Sun Jianjun, Mr John Tang, Mr Tham Chiew Kit and Mr Bryan Yeo.

DEVELOPMENT

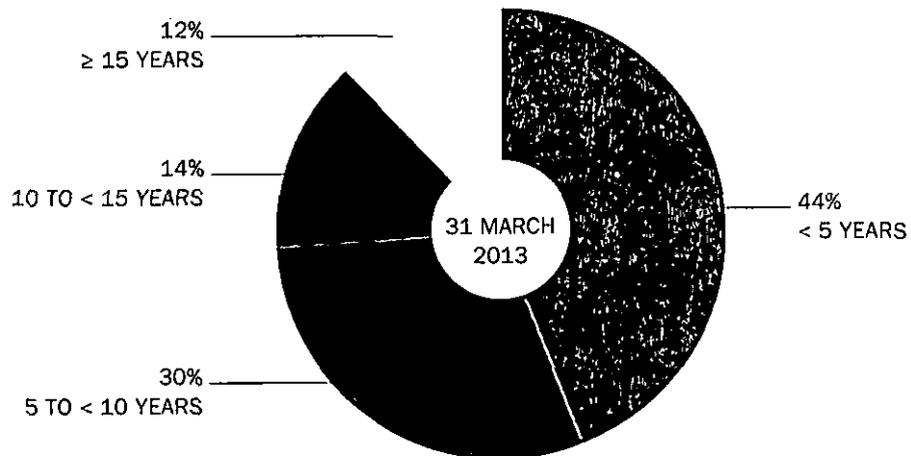
GIC looks for people with a drive to succeed, an openness to ideas, a capacity to innovate, a desire to learn and a willingness to work as a team. The GIC Professionals Programme recruits recent graduates from around the world for a high-intensity training programme which fits them out for a career in GIC. Separately, the GIC Internship Programme offers promising undergraduate and postgraduate students insightful attachments in the fund management business.

We strive to develop staff to their full potential through training programmes and many opportunities for learning and contribution. There is a Foundation Programme at every grade level which builds camaraderie across the company and develops deeper understanding of the expectations, values and beliefs which will make the future. This is complemented by mentorship programmes, learning communities, attachments and rotations. Most of all, GICians are encouraged to build up their self-confidence and exercise creativity by participating in various schemes which welcome innovation and continuous improvement, where they can initiate ideas, identify issues, propose solutions, experiment, lead and contribute in their own way.

WHERE OUR INVESTMENT PROFESSIONALS COME FROM

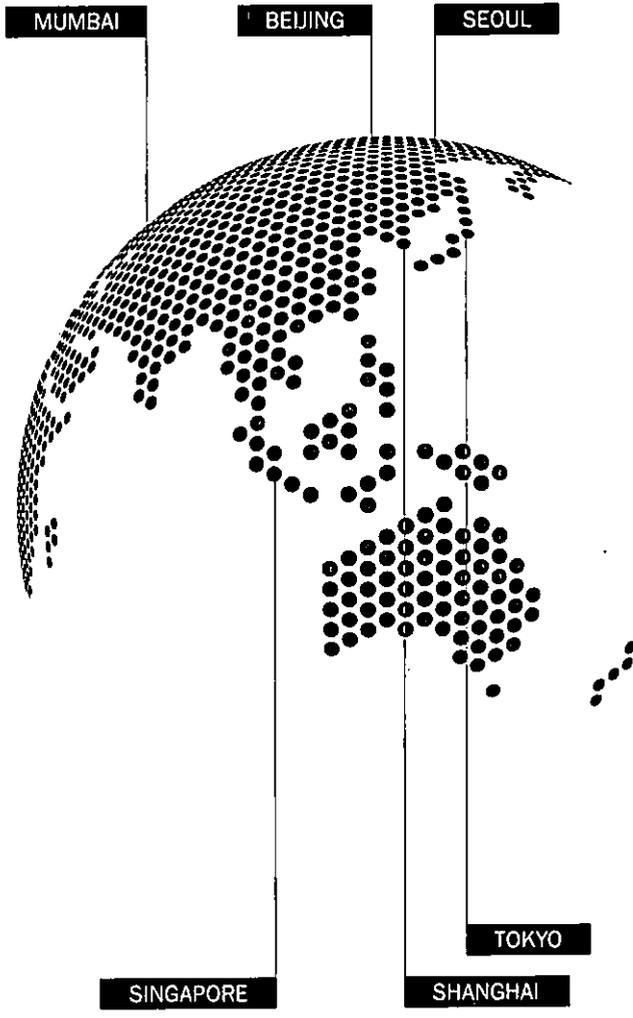


YEARS IN GIC



OUR OFFICES





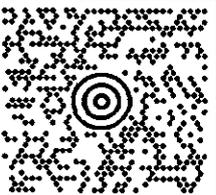
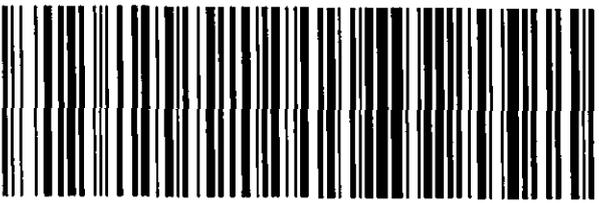
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