

Strengthening Capital Requirements for Insurance Companies – Preparation for Solvency II

Executive summary

A company's capital is intended to serve as a pillow to absorb losses resulting from the realization of unexpected risks to which an insurance company is exposed – risks that the company did not identify in a specific manner or which were not properly assessed.

The current Israeli requirements for insurance companies' capital deal with insurance risk mainly arising from non-life insurance¹ and do not take into consideration the additional risks to which the companies are exposed. This is in contrast to the standard prevailing in developed countries, in which the allotment of capital relates to various risks to which the insurance companies are exposed. It also contrasts with the trend prevailing throughout the world, which has been codified, *inter alia*, in the Solvency II directive that the Insurance Commissioner is seeking to implement in Israel, regarding the efficient allocation of capital to all the risks to which the insurance companies are exposed. These include insurance risks, market risks, credit risks and operating risks.

As the Israeli model for capital requirements does not include any requirements for risks other than insurance risks², and because a comparison to advanced models indicates significant level of divergence between the capital required in Israel and that required in developed countries, it is proposed that action be taken today to minimize this disparity between requirements.

Because the impact of the implementation of Solvency II on Israeli insurance companies is unclear, we propose to establish, as a target for the capital required of Israeli insurance companies, an amount of capital that reflects the capital that would have been required for them pursuant to the Solvency I directive, with an addition of 30% (hereinafter, "the Target Capital"), and to adjust the capital requirements for Israeli insurance companies to the Target Capital, especially with regard to risk categories that are not taken into consideration in the current Israeli model.

Accordingly, we propose to add requirements for the following categories to the existing Israeli capital requirements:

- (a) A capital requirement for investment assets held against non-participating insurance policies and for the exposure to the financial stability of reinsurers.

The risks involved in investment assets have a critical impact on the profitability and stability of Israeli insurance companies. In 2006, income from investment assets constituted more than 60% of the insurance companies' pre-tax profits. The strength of their impact was reflected in, *inter alia*, the exceptional fluctuations in the insurance companies' profits during the first half of 2006, which resulted from negative returns in the local and worldwide capital markets,

¹ And long term care

² Except for investment assets capital requirements that are held against non-participating life policies

and brought about the issuance of a series of profit warnings by these companies.

Additionally, the Israeli insurance companies regularly transfer a significant portion of the insurance risks that they take upon themselves to be covered by reinsurers (some 23% of non-life insurance premiums during 2006), and in doing so, they expose themselves to credit risk and to the financial stability of the reinsurers.

The lack of a capital requirement for risks involved in investment assets that are held by the insurance companies, a high level of exposure to reinsurers and the high level of risk that characterizes the financial and capital markets all necessitate the taking of immediate steps to insure the ability of the Israeli insurance companies to meet their obligations to the insureds.

It is therefore proposed that additional capital requirements be added to those currently existing in Israel – capital requirements for investment assets and for exposure to reinsurers. These additional requirements would be similar to the standard practices in other countries, and would be established according to multiplier amounts for each asset by the capital percentage established in the following table.

This requirement will render irrelevant the need to limit the risk profile for non-participating insurance policies, and it is therefore proposed that, at the same time, the obligation imposed on insurance companies to meet the minimum measure of risk dispersal for such liabilities be cancelled.

- (b) A capital requirement for the exposure of non-life insurance business to damages as a result of a single catastrophic event.

Insurance companies are exposed to catastrophe risks³, and in Israel the primary catastrophe risk for general insurance business is the risk of earthquake. The Israeli insurance companies are not accumulating reserves for the purpose of covering property damages due to earthquakes and their liabilities do not reflect such coverage (other than as expressed in the UPR-Unearned Premium Reserve.)

The Israeli insurance companies customarily transfer most of the risk for earthquake damage to be covered by foreign insurers, but they also accept some of the risk for themselves and are also dependent on the financial stability of the reinsurers.

³ Sudden and unexpected events that cause significant damage.

It is therefore proposed to establish a capital requirement in the amount of the following two items:

- The self retention⁴ by the insurance company regarding general insurance exposure to damage as a result of a single catastrophic event.
- An amount which is the product of the share of the reinsurers in the general insurance exposure for natural disasters, by the factors established in Table Number 10 - "Capital Amounts Required for Types of Assets" - in Appendix E, in accordance with the ranking of the reinsurers.

(c) Capital requirement for operational risks

The total amounts managed by the insurance companies, the complexity of their activity and the sophistication of the technology they use exposes them to operational risks that are likely to be caused as a result of faulty or deficient internal processes, human factors, system failures or external events. The realization of an operational risk can threaten an insurance company's stability as well as its ability to meet its obligations to insureds.

We therefore propose to establish a capital requirement in the amount of 1.5% of an insurance company's total balance sheet assets, for exposure to operational risks.

This document presents a review of trends and developments throughout the world, a review of types of models for capital adequacy used throughout the world, and an examination of the implications for Israeli insurance companies of the implementation of the models used in other countries, and of the implementation of the proposed model.

⁴ The self retention of an insurance company, after considering the amounts of reinsurers' participation, in proportional and non-proportional reinsurance.

For the purpose of this table –

“Debts” Shall include deposits, loans, debentures, and guarantees, less amounts transferred to reinsurers, multiplied by the given factors (appendix D’).

“Debts of a reinsurer” shall include the reinsurers’ shares of UPR and of pending claims and ongoing debt, less letters of credit and deposits.

Type of asset	Capital requirement
-Policy loans (Life) - Earmarked Bonds	0%
- Cash and cash equivalents - Debt instruments of countries rated AAA or higher, and of central banks of such countries	0.5%
- Debt instruments of countries rated A or higher, and debt instruments of central banks of such countries	2%
- Other debt instruments rated AA and higher, including debt instruments of reinsurers that are so rated - Loans given to an agent collateralized by future commissions	2.5% or 2% for debt instruments with international rating
Other debt instruments rated A or A2 or higher, including debt instruments of reinsurers that are so rated	5% or 4% for debt instruments with international rating
Debt instruments rated BBB or A3 and higher, including debt instruments of countries and of reinsurers that are so rated	7.5% or 6% for debt instruments with international rating
Debt instruments rated lower than (BBB) or A3, including debt instruments of countries and of reinsurers that are so rated, and debt instruments that are not rated	10% or 8% for debt instruments with international rating
- Negotiable shares - Mutual funds, basket certificates - Base assets for options and futures contracts that are calculated in Delta terms	14%
- Real estate rights - Non-negotiable shares - Non-negotiable venture capital funds - Other assets	16%

3. Part two – an examination of the implications of the implementation of the foreign country models for Israeli insurance companies

In this part, we examine the implications for Israeli insurance companies of the implementation of the foreign models. For the sake of simplicity, this review was carried out regarding standard models, based on given factors:

- a. Solvency I – tested with respect to life insurance and general insurance;
- b. The English model - Enhanced Capital Requirement - tested with respect to general insurance activity only and based on the factors in Tables 2 and 3, in Appendix A.
- c. The Australian model – Apra's Standard model – tested with respect to general insurance activity only and based on the factors in Tables 6-8, in Appendix C, with the addition of the self retention for a catastrophic event.

Note that the test described in this section is only an estimate, and full adjustments for the differences in actuarial and accounting approaches were not carried out.⁵ Note also that different interpretations can be given for the manner of calculating the estimate, which result from, *inter alia*, the differences between the types of products offered in Israel and those offered in the surveyed countries; from differences in the manner in which the lines of insurance business included in life insurance and general insurance are classified; and from the fact that a significant number of the insurance companies in Israel are engaged in providing both general insurance and life insurance.

In the context of carrying out the comparison, necessary adjustments were made in the following categories –

- (a) In the context of the comparison to Solvency I, the full amounts required pursuant to the Israeli model due to deferred purchase expenses, non-recognized assets and controlled companies are added to the results of the calculation according to Solvency I. Additionally, the full capital requirement for special risks pursuant to the Israeli model was taken into consideration, ignoring the completion period established in the regulations.
- (b) In the context of the comparison to the Australian model and to the English model, the capital requirements in the Israeli model that do not refer to general insurance activity - including capital requirements for non-recognized assets, controlled companies, yield guarantees and deferred purchase expenses - have been neutralized.

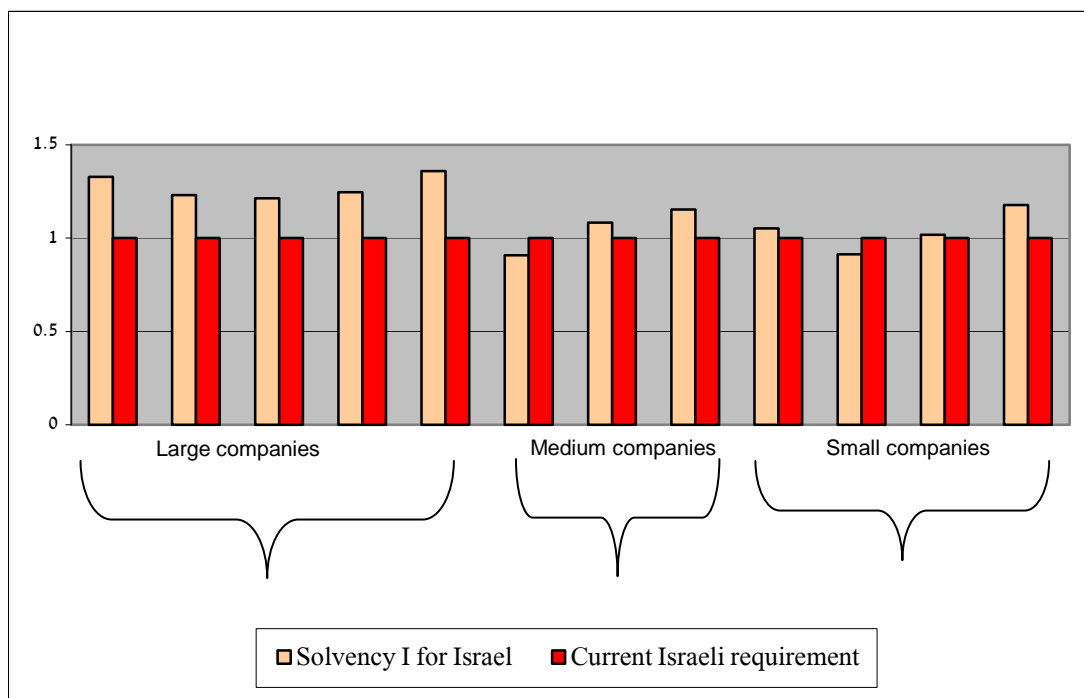
Note that in any case in which we did not have available/full data for running the test pursuant to a given model, lenient assumptions were taken into consideration.

⁵ Thus, for example, while some Israeli insurance companies do capitalize pending claims in general insurance, such capitalization is prohibited in some of the models.

Chart Number 1 shows that the ratio between the capital requirements pursuant to the Israeli model and the capital requirements pursuant to Solvency I fluctuates between 1.1:1 and 1.3:1. The disparity results from the Solvency I requirements for life insurance, which contrast with the absence of such requirements in the Israeli model (other than 0.17% for special risks for life insurance). At the same time, due to the differences between the basis for the calculation of the capital requirements for general insurance business under Solvency I, and the basis of the calculation under the Israeli model,⁶ the ratio between the capital requirements under the Israeli model and the capital requirements under Solvency I for two companies will be lower.

Chart 1

Ratio between the capital required according to Solvency I and the capital required according to the current Israeli model – Israeli insurance companies dealing with life insurance and general insurance lines of business
(December 2006 data)



⁶ “Claims experience” in contrast to the pending claims balance.

The implementation of the English and the Australian models for Israeli insurance companies, with regard to general insurance business only, indicates a large difference between the requirements under the foreign models and the requirements under the Israeli model.

The ratio between the capital requirements according to the Israeli model for general insurance business and the capital requirements according to the English model generally fluctuates between 1.5:1 and 2.5:1. The divergence results mainly from the capital requirements for investment assets [which, as noted, are not included in the Israeli requirement] and from the fact that the requirements according to the English model are a function of the insurance premiums and of pending claims covered by self retention, and not of the higher of the two of them.

The ratio between the capital requirements according to the Israeli model for general insurance business and the capital requirements according to the Australian model generally fluctuates between 1.5:1 and 2.5:1. As with the English model, the divergence results mainly from capital requirements for investment assets [which, as noted, are not included in the Israeli requirement] and from the fact that the requirements according to the Australian model are a function of the insurance premiums and of pending claims covered by self retention. The disparity also results from the Australian model's requirement that additional capital be made available for the retained risk with respect to a catastrophic event.

Nevertheless, it should be noted that in realizing the Australian model, we did not take into consideration the capital requirement for the cost of establishing reinsurance contracts for a catastrophic event, as required pursuant to the Australian model, and the adjustment needed because of the rating differences between Australia and Israel was not carried out.⁷ If these adjustments had been taken into account, the ratio would have been higher.

Charts numbers 2 and 3 show that the impact of the implementation of the English model and of the Australian model on larger companies is significantly greater than the impact on smaller companies. This is because in the Israeli model, the amount of the capital required due to the balance of the pending claims that are covered by the retained risk is significantly reduced above a ceiling of NIS 30 million in claims, while under the foreign models, the amount of the capital required due to the balance of the pending claims covered by the retained risk is fixed.

⁷ For example, for securities issued by the state of Israel, a factor was assigned which was parallel to the factor assigned for a security rated AAA pursuant to the Australian model, rather than a factor that reflects the rating of the State of Israel.

Chart Number 2

Ratio between capital required according to the English model and the capital required according to the existing Israeli model – Israeli insurance companies dealing only with general insurance lines of business
(in millions of NIS, December 2006 data)

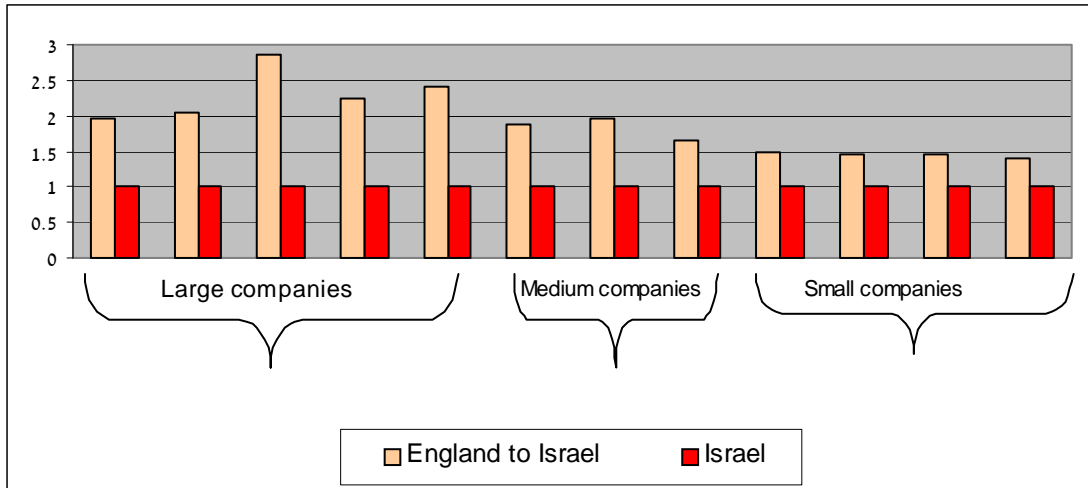
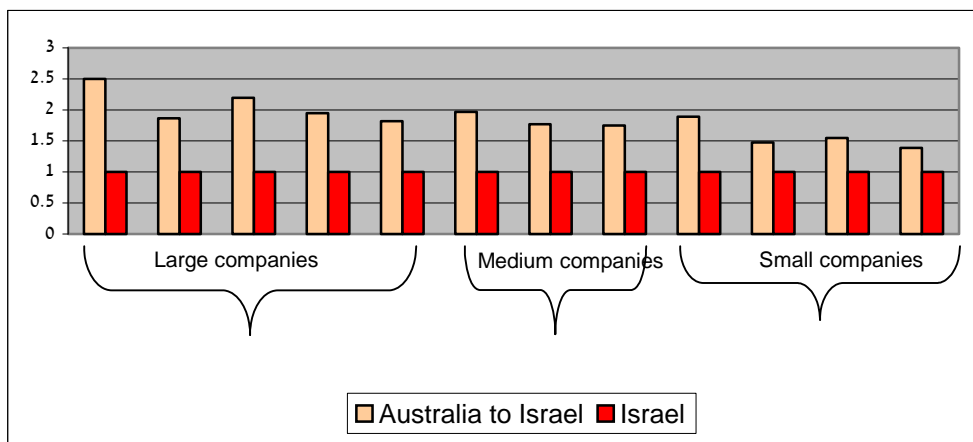


Chart Number 3

Ratio between capital required according to the Australian model and the capital required according to the existing Israeli model – Israeli insurance companies dealing only with general insurance lines of business
(in millions of NIS, December 2006 data)



4. Part Three – Proposal for additional requirements in the Israel model, as an interim stage

The trend throughout the world regarding the importance of the effectiveness of appropriate risk management practices, for the assessment of the potential impact of risks and for effective capital allocation; the significant gaps between the capital requirements in Israel and the capital requirements pursuant to standard foreign models, as is indicated by Part Two of this document; and the fact that the Israeli model belongs to the category of the most basic models – i.e., those that relate to only one type of risk – all necessitate the adoption of immediate measures which will make it easier to implement Solvency II in Israel.

Because the impact of the implementation of Solvency II on Israeli insurance companies is unclear, we propose to establish, as a target for the capital required of Israeli insurance companies, an amount of capital that reflects the capital that would have been required for them pursuant to the Solvency I directive, plus an additional 30% (hereinafter, "the Target Capital"), and to adjust the capital requirements for Israeli insurance companies to the Target Capital. Since the Israeli model does not include capital requirements for risks other than insurance risks for general insurance and for nursing care insurance, we propose that the existing model be adjusted especially with regard to the categories that are not currently taken into consideration.

Accordingly, we propose to add requirements for the following categories to the existing Israeli capital requirements:

- (a) Capital requirements for investment assets held against non-participating insurance policies and for exposure to the financial strength of reinsurers.

Research regarding the consequences of the implementation of Solvency II in Europe indicates that the capital requirements for risks involved in investment assets will have a very significant impact for companies in countries whose capital requirements are based on Solvency I.

Income from their investments has a significant impact on the profits of Israeli insurance companies. The strength of its impact was reflected in, *inter alia*, the exceptional fluctuations in the insurance companies' profits during the first half of 2006, which resulted from negative returns in the local and worldwide capital markets, and brought about the issuance of a series of profit warnings by these companies.

A survey carried out by the Capital Markets Division in order to assess the contribution of income from investments to the profits of the insurance companies during the past ten years indicates a strong positive contribution.

Additionally, an analysis recently published by Accountants Beni Gabai and Moshe Shahaf,⁸ which examined the effect of investment income on the profitability of Israeli insurance companies, showed that in 2006, investment income constituted more than 60% of the pre-tax profit of Israeli insurance companies, and for companies that had not issued any life insurance policies before 1990 and which have no developed health insurance business, investment income constituted more than 80% of such profit.

Investment income was neutralized in the analysis in the following manner –

1. For participating life insurance, the writers recorded a 0% yield, and for non-participating life insurance, against which the company holds earmarked debentures, the yield recorded was in accordance with the yield of the earmarked bonds. In this case, the insurance companies' profits from life-insurance business in 2006 came to some NIS 724 million only, in contrast to some NIS 1,861 million if the investment profits were not neutralized.
2. For general insurance, a yield of 0% was recorded, and for liability insurance lines of business, the profit for 2003 and for other years was replaced with the underwriting profit for 2006. In this case, the insurance companies' profits from general insurance business during 2006 came to some NIS 714 million only, in contrast to some NIS 1,929 million if the investment profits were not neutralized.

Additionally, the Israeli insurance companies regularly transfer a significant portion of the insurance risks that they take upon themselves to be covered by reinsurers (some 23% of the general insurance benefits during 2006), and in doing so, they expose themselves to credit risk and to the financial strength of the reinsurers.

The lack of a capital requirement for risks involved in investment assets that are held by the insurance companies, a high level of exposure to reinsurers and the high level of risk that characterizes the financial and capital markets all necessitate the taking of immediate steps to insure the ability of the Israeli insurance companies to meet their obligations to the insureds.

It is therefore proposed that additional capital requirements be added to those currently existing in Israel – capital requirements for investment assets and for exposure to reinsurers. These additional requirements would be similar to the standard practices in other countries, and would be established according to multiplier amounts for each asset by the capital percentage established for it in

⁸ See "Uninsured Insurance," Accountants Moshe Shahaf and Benny Gabai, Globes, July 2007.

Table Number 10 – “Capital Percentages Required For Types Of Assets” in Appendix E, with an adjustment for differences between a local and an international rating.

As a marginal point, and in order to remove doubt, note that this requirement would replace the capital requirement for the investment assets risk currently established in the first supplement to the Capital Regulations for non-participating insurance policies.

- (b) A capital requirement for the exposure of general insurance business⁹ to damages as a result of a single catastrophic event.

Insurance companies are exposed to catastrophe risks,¹⁰ and in Israel the primary catastrophe risk in Israel is the risk of earthquake. The Israeli insurance companies are not accumulating reserves for the purpose of covering property damages due to earthquakes and their liabilities do not reflect such coverage (other than as expressed in the reserve for unrealized risks.)

The Israeli insurance companies customarily transfer most of the risk for earthquake damage for coverage by foreign insurers, but they also accept some of the risk for themselves and are also dependent on the financial strength of the reinsurers.

It is therefore proposed to establish a capital requirement in the amount of the following two items:

- The self retention¹¹ by the insurance company regarding general insurance exposure to damage as a result of a single catastrophic event.
- An amount which is the product of the share of the reinsurers in the non-life insurance¹² exposure for natural disasters, by the factors established in Table Number 10 - “Capital Amounts Required for Types of Assets” - in Appendix E, in accordance with the ranking of the reinsurers.

- (c) Capital requirement for operational risks

The total amounts managed by the insurance companies, the complexity of their activity and the sophistication of the technology they use exposes them to operational risks that are likely to be caused as a result of faulty or deficient internal processes, human factors, system failures or external events. The realization of an operational

⁹ As provided in the Australian model.

¹⁰ Sudden and unexpected events that cause significant damage.

¹¹ The self retention of an insurance company, after considering the amounts of reinsurers' participation, in proportionate and non-proportionate re-insurance.

¹² In accordance with the MPL established by the insurer, pursuant to the Commissioner's guidelines for contractual and facilitative insurance, proportionate and non-proportionate.

risk can threaten an insurance company's stability as well as its ability to meet its obligations to insureds.

We therefore propose to establish a capital requirement in the amount of 1.5% of an insurance company's total balance sheet assets, for exposure to operational risks.

Chart Number 4 and Number 5 show a comparison of the new capital requirements as compared with the Target Capital, with the current Israeli model and with Solvency I. Note that the calculations are based on data reported by the insurance companies, and to the extent that we did not have complete or accurate data, the necessary adjustments were carried out.

Chart Number 4

Capital currently required compared with the proposed model, with The Target Capital and with Solvency I - for large companies
(in millions of NIS, December 2006 data)

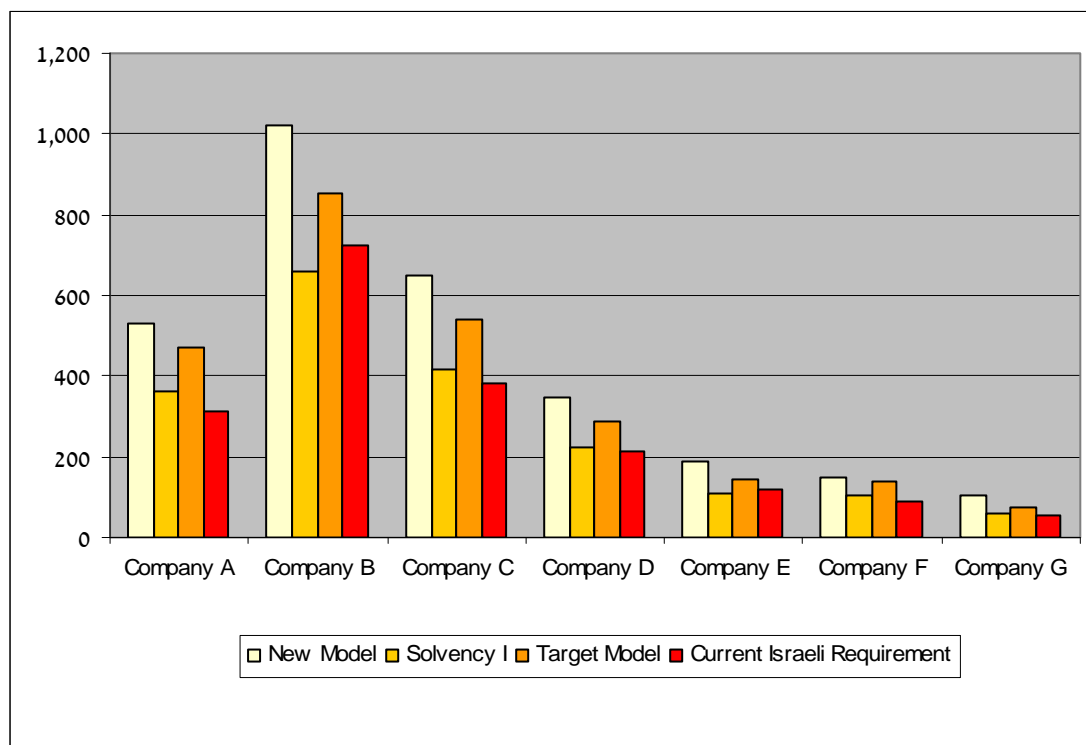


Chart Number 5

Capital currently required compared with the proposed model, with the Target Capital and with Solvency I - for medium and small companies
(in millions of NIS, December 2006 data)

