

Investment Department

Financial Instruments Unit

ETN Supervision Model - An Overview

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Executive Summary

Exchange traded notes, including short Exchange Traded Notes, leveraged Exchange Traded Notes, complex Exchange Traded Notes and covered warrants (in this document: **ETNs**)¹ have been publicly issued in Israel for more than a decade, since May 17, 2000. ETNs are a globally unique financial product. The ISA's permission for offering these unique products to the public, as part of its desire to encourage development of the capital market in Israel, requires the ISA to regularly face complex challenges and invest significant resources in protecting investor interests in the Israeli capital market.

So far, hundreds of different ETNs have been issued. Currently, this market comprises about five hundred ETNs, managing public funds in excess of 55 NIS billion. This is the fastest growing market segment, both in terms of the complexity of its products, and in terms of money under management.²

ETN operations are subject to various risks – both financial and operational. Exposure is first and foremost due to ETNs being promissory products, which guarantee their holders the yield on the underlying asset, regardless of the issuing company's coverage. However, ETNs are also subject to risk from their complicated nature (exposure abroad, investment strategies, leveraged operations), and from the need to trade in real time.

Besides the specific risk to investors in ETNs, system wide risk to the capital market as a whole is also inherent in these operations. Any insolvency by an ETN issuer would require cessation of activities and the sale of all publically owned securities held by that issuer. Such an event could lead to a far reaching drop in securities prices in the Tel Aviv Stock Exchange (hereinafter - "**the Stock Exchange**"). The risk of such a system wide risk materializing, and the understanding that ETNs involve financial activities which require supervision and regulation, have led the Israel Security Authority (hereinafter - "**ISA**") to

¹ Today, these assets are commonly referred to as indexed products. As part of this market's transition to a supervisory regime, "Exchange Traded Note" will be defined as legal term including all such products, and serving as an equivalent of a mutual fund.

² For comparison, at the end of 2006, public holdings in ETNs were valued at NIS 13.1 billion, with 133 notes in circulation. By the end of 2008, public holdings in ETNs had risen to NIS 30.1 billion, with 380 notes in circulation. As of December 2010, public holdings were valued at NIS 57.7 billion, with 476 notes in circulation.

initiate the regulation of this market according to the strict regulations that apply to mutual funds. This process is currently underway, and as part of this initiative, on November 15, 2009, the ISA Plenum approved a proposed amendment to the Joint Investments Trust Law of 1994 (hereinafter - "**Joint Investments Trust Law**"), which will apply similar regulation to ETNs and mutual funds, and will enable additional new activity in the form of Exchange Traded Funds.

In conjunction with this legislative amendment initiative, the ISA, together with various different parties including ETN issuers, and various capital market experts, considered ways of identifying and measuring the risks inherent in these activities, and ways to manage and mitigate these risks as much as possible. This process of identifying, managing and mitigating risks cannot, and from the start was not intended to resolve the risks inherent in these activities. It is important to emphasize that all financial activity is subject to financial risk, which cannot be completely resolved. Therefore, these risks must be managed intelligently and mitigated as much as possible. Although imposing additional regulatory restrictions would mitigate ETN related risks even further, such restrictions, as will be clarified later, would lead to the cessation of many operations in this market. This would materially damage competition, in some cases to the point of the entire ETN market collapsing.

The ISA has set itself two main goals. First, to preserve activity of the ETN market; and second, to find a formula which would minimize risk in this market as much as possible under the circumstances. Therefore, the ISA decided on a method of operation, which includes various provisions and restrictions, aimed at curtailing the various risks involved in ETN activities. Concurrently, a system of effective incentives was put in place, encouraging ETN managers to comply with the prescribed rules. This supervisory model was developed by the ISA in conjunction and collaboration with ETN issuers, while examining existing models employed for other supervised entities (banks, insurance companies, provident funds, mutual funds, and non banking corporate members of the exchange), as relevant. As regards the ETN market, this initiative does not constitute regulation of a new segment, but rather an existing industry many of whose properties are based on a certain manner of incorporation and on a system of obligations and agreements. With this in mind, the development of a regulatory framework in

collaboration and agreement with ETN issuers is paramount to quick and effective implementation and compliance.

In formulating professional models, the ISA employed the aid of consultants, all of whom are leading risk management professionals. Dr. Maayana Weissman and Dr. Avi Wohl served as advisors for the ETN Association for developing the market risk management model, while Prof. Amir Barnea served as the Association's advisor for the capital allocation model. These models were tested by Prof. Zvi Wiener, an independent advisor on behalf of the ISA.

Risk mapping in the ETN market encompassed various different risks. The main risks in this market are as follows:

Operational risk – This risk arises from the issuer's operations themselves, and in the ETN market it is materially affected by dependence on computer systems. As part of the implementation of a regulatory framework in this market, emphasis was placed on the development of infrastructure of systems controls and computer systems, and initiating ISA-led audits of all issuers. The transition to regulation under the Joint Investments in Trust Law will reinforce aspects of corporate governance in companies, and among other things will strengthen control over ongoing operations and will make corporate governance requirements in the ETN market equal to those employed in the mutual fund market. Capital allocation for operational risk will be a complementary measure in mitigating this risk, both by creating a high "entry barrier" to the segment, and through its relation to the value of assets under management.

Credit risk – Credit risk in the ETN market mainly involves exposure to supervised banks which allocate capital according to the Basel Accord model. Naturally, this exposure is not sufficiently diversified, and so must be carefully addressed in the model. At first glance, the simplest solution would seem to be requiring companies to invest their money only in underlying assets, thereby negating the risk. However, the nature of the activity in the ETN market does not allow this, as it would prevent ETN operations in overseas indices, prevent the issue of complex products, create exposure to operational risk and market risk, and would significantly undermine issuers' coverage options. On the other hand, requiring capital allocation which would allow real, full compensation in the event

of a bank collapsing would shut down the entire market. Diversification across a large number of banks is not operationally practical, among other things due to the fact that, in certain cases, it completely undermines economies of scale and economic viability. Therefore, lacking any way of negating the risk, the integrated approach developed by the ISA aims to significantly mitigate the risk and to that it is managed conservatively.

Risk is mitigated by investing the bulk of funds in low risk banks, while requiring a 100% capital allocation on cash deposits in banks whose credit rating is not in the top two rating groups. Classifying entities into different quality groups will be in accordance with the credit rating determined by Israeli and international rating agencies. Bank deposits must be diversified, with any deposit of more than 25% of an ETN's assets in one bank being permitted only in banks assigned to the top credit rating group. These banks, where deposits of up to 50% are permitted, must comply with ISA document and information disclosure requirements, so that the ISA can protect the interests of public investors in ETNs. Cash deposits require a capital allocation which depends on the risk factor's credit risk profile. Capital allocation will also be required for other activities involving credit risk, such as asset lending, or swap or similar transactions. The capital allocation requirement is negligible compared to the at-risk asset deposits. However, it is material for ETN managers, so that it serves as a negative incentive to risk taking. Furthermore, the funds are subject to liquidity requirements, so as to allow movement between banks when concerns arise for the risk's materialization.

Market risk – This risk reflects a mismatch between an ETN's underlying assets and its legal obligations. In order to quantify and manage market risks, the ISA developed a model based on VaR and stress tests. Ongoing measurement of a company's market risk, through stress tests to be conducted every 10 minutes, is a material improvement of market risk management procedures. Furthermore, weekly VaR and stress tests are sophisticated and commonly used tools for risk measurement. Capital allocation for market risk will be in accordance with the higher of either the VaR test results (3 or 4 times the measured value)³ or the weekly stress test measurement, and subject to a minimum capital allocation

³ Capital allocation requirements will be increased when a company fails its back testing verification of the VaR model validity.

requirement for market risk, to an amount that is greater than the risk currently measured by issuers. Investment rules lay down the general outline which governs investments in index tracking assets.

Liquidity risk – As part of the investment rules, the ISA formulated restrictions and negative incentives on coverage using non liquid assets. These include a “penalty” imposed by revaluating contracts and deposits with banks according to their immediate withdrawal value. In addition, issue prospectuses already currently impose restrictions on conversion, so as to allow conversion proceed payments to be covered by the sale of underlying assets.

In order to mitigate these risks, the issuer's will adopt the supervisory model described below. It consists of a series of provisions and rules formulated through open discourse with the market, and with a clear aim to support existing and future activity by market players, both as regards the identity of these players and the nature of their activity. This supervisory model reflects an understanding that there is no one model or formula which can absolutely guarantee ETN solvency, and that maintaining market stability requires ongoing supervision and monitoring. The various models are intended to outline the framework for activity in this market, and to provide incentives for companies to act conservatively.

Supervision Model – Main Points:

1. **Transition to supervised operations** – Migrating the ETN market to regulation under the Joint Investments in Trust Law. This involves a transition from disclosure based operations to supervision- and regulation-based operations, while applying the corporate governance rules prescribed for mutual funds, and reinforcing the status and responsibilities of trustees. As part of this switch, the ownership of the ETN's underlying assets will be transferred to investors, and will be in trust on their behalf by the trustee.⁴ ETN managers will only be obligated for supplementing the difference between the value of assets held by investors and their legal obligation towards those investors. This legal obligation will be adjusted on an ongoing basis, and will be backed by the capital allocation in a designated, trustee

⁴ Currently, these assets are property of the ETN issuer, and are pledged to the trustee.

supervised account, which will serve as a readily available safety cushion. The Law will also provide for trustees' duty to supervise ETN management companies, in a manner similar to that employed for mutual funds.

The proposed amendment to the Joint Investments in Trust Law (hereinafter - "**Amendment 16**"), is available on the ISA website - http://www.isa.gov.il/Download/IsaFile_5367.pdf. See **Chapter B** below, detailing Amendment 16's principal implications for corporate governance and supervision.

2. **Investment rules** – Defining a set of rules concerning those assets which are permitted for investment, while minimizing permitted investment channels. Rules have been formulated for guaranteeing marketability and liquidity, so as to assure the fastest possible redemption. These rules also provide for investment in products, such as: underlying assets, futures, options, swap contracts, etc. Furthermore, investment rules emphasize that issuers are at all times able to switch to alternate investment products.
3. **Market risk management** – Models have been formulated for measuring and managing market risk, including VaR and stress test models. The supervision model regulates the method for calculating the at-risk value (95% VaR) on a weekly basis (the maximum daily loss estimated with 95% confidence), and dictates that stress tests are conducted once a week (the estimated loss given the worst case scenario in the past 3 years), while a stringent scenario model will be calculated **every 10 minutes** during the course of trading day. This model is a significant improvement in the way that issuers' cope with market risk, and lays the foundation for ongoing measurement of a company's exposure, and for risk based capital allocation.

The market risk management and control model formulated by Dr. Maayana Weissman and Dr. Avi Wohl, in collaboration with the ISA and in accordance with ISA specified principles, is available on the ISA website.

4. **Regulating operations involving financial entities** – Defining a strict credit risk exposure limit, while classifying risk sources into three primary classes. This regulatory framework will include rules governing engagements with

financial entities, ongoing monitoring requirements, and situations where issuers are required to withdraw their fund from that entity.

The credit risk management policy for operations involving overseas financial entities adopted by ETN managers in September 2009, was published as part of the issuing companies' immediate reports on the ISA's MAGNA website.

5. **Capital allocation** – The capital allocation model prescribes capital allocation requirements for operational risk, market risk, and credit risk. The capital allocation model is not intended to insure against future crashes. It does not transform ETNs into failure proof products. This model is designed to reduce economic incentives to risk taking, while encouraging solid, safe conduct in a company's day to day operations. Capital allocation requirements account for economic limitations and the relatively limited amount of capital available to ETN managers. They also aim not to be excessively high, as such requirements would lead to the decrease of this market. Under the present market structure, capital requirements range from NIS 40 million to NIS 110 million at the ETN manager level. Although these are substantial amounts, especially for special purpose companies (hereinafter - "SPCs"), the capital allocation model is practical, and ETN managers and experts, both on behalf of the ETN Association and on behalf of the ISA, actively participated in formulating its key principles.

Every ETN manager will be required to maintain a backing account. Backing accounts are accounts maintained by ETN managers, where deposited assets serve to guarantee ETN managers' legal obligations towards holders of ETN units. The amount to be deposited in the backing account will be dictated by the regulations, according to the capital allocation required under the supervisory model described herein. Backing accounts will be supervised by ETN trustees. It is emphasized that backing accounts will be kept separate from trustee assets and from ETN manager assets, and will be subject to legal protection under the aforesaid legislative amendment. All non-cash capital allocations in the backing account will be subject to "Discount Mechanism" (i.e.– measuring an asset below its value for the purpose of determining capital allocation requirements, due to its inherent risk) according to criteria applied

for non-banking corporate members of the Stock Exchange (hereinafter - "NBCMs").

6. **Disclosure** – Disclosure is one of the main tools used by the ISA in the past few years. In that time, it has proven itself as most effective in protecting investor interests. Although it does not suffice in itself and cannot prevent the collapse of an ETN issuer, the disclosure requirements compiled over the years, and especially the directive concerning disclosure of risks in ETN issuer operations, have shown that, to a certain extent, they urge market players to act as “gatekeepers” when simple and concise disclosure requirements are prescribed. The use of disclosure as a “supervisory tool” is made possible by the robust competition characterizing this market. From an investor's standpoint, a significant part of those ETNs issued by various different issuers constitute perfect substitute products due to their nature as passive investment products. Under these circumstances, any “negative” disclosure which puts an ETN issuer at a "disadvantage" relative the competition, creates a strong incentive, both under existing regulation and under the proposed regulation, to adhere to the strictest standards (‘race to the top’).

The ISA’s directive from February 3, 2010, concerning disclosure of credit risk, market risk, and public holdings in financial instruments, whose extension was approved by the ISA Plenum on December 22, 2010, is available on the ISA website - www.isa.gov.il/Download/IsaFile_5486.pdf.

A. Introduction

Today, many diverse ETNs are available on the market. This include ETNs, covered warrants, short ETNs, commodity ETNs, various composite ETNs, deposit certificates, and contract certificates.⁵

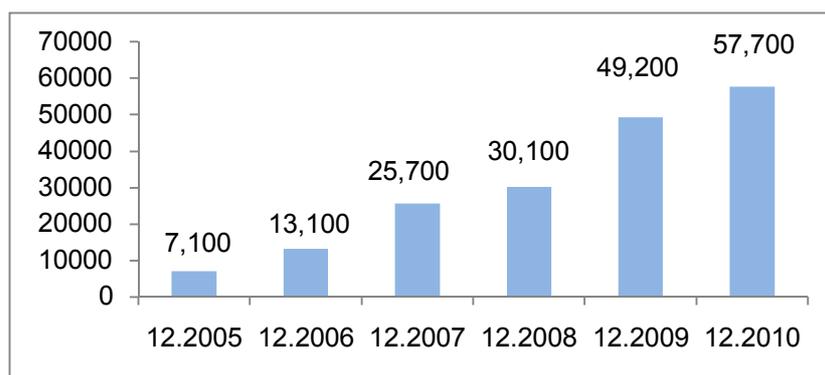
ETNs are, effectively, a bond-type security, whose value and yield are derived from the relevant asset or index specified by the security's legal obligation, and can be converted on a daily basis net of commissions according to a pre-

⁵ As ETNs account for the lion’s share of the ETN market, and considering that after regulation and legislative initiatives are completed all indexed products will be defined as ETNs, this document occasionally uses the term “ETN” to refer to all indexed products.

determined formula specified in the prospectus. ETNs are issued by SPCs, which offer them to the public and list them for trading on the Stock Exchange.

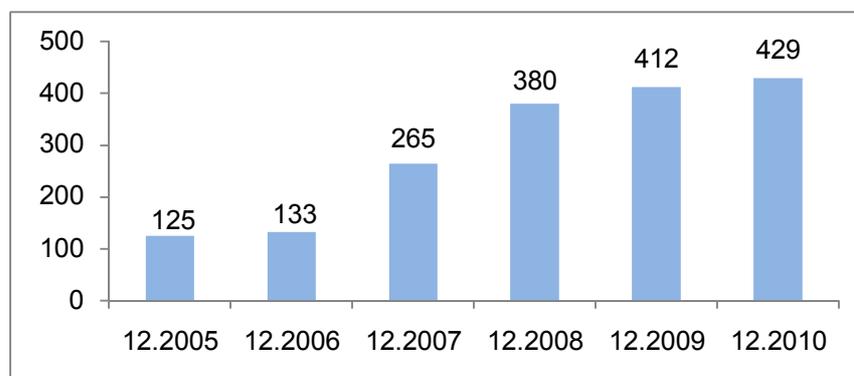
The first ETN in Israeli (TALI 25) was issued by Psagot ETNs (then called "Ofek Leumi Financial Instruments") in May of 2000. Since then, the market has evolved and is continuously growing. Thus, at the end of 2006, public holdings in ETNs were valued at NIS 13.1 billion, with 133 notes in circulation. By the end of 2008, public holdings in ETNs had risen to NIS 30.1 billion, with 380 notes in circulation. As of December 2010, public holdings were valued at NIS 57.7 billion, with 429 notes in circulation. Meaning, over a five year period, public holdings grew approximately four-fold, with a similar growth rate being recorded in the number of notes in circulation.

Value of Public Holdings*



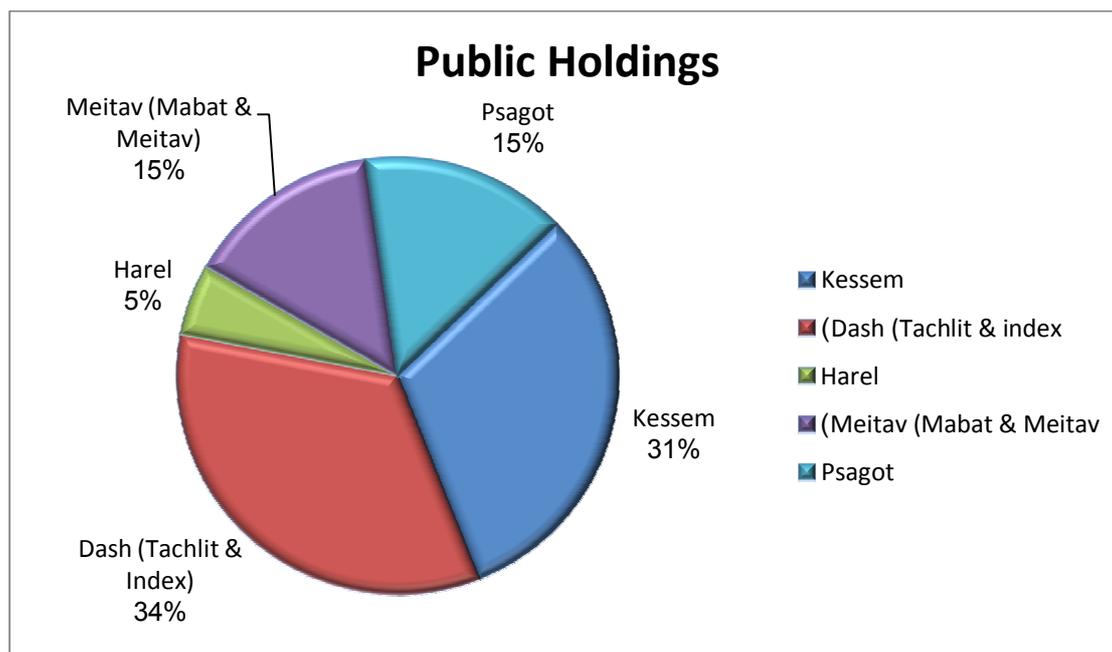
* NIS million

ETN's in Circulation



Currently, the market is comprised of seven issuers: Kessem (31.21%), Tachlit (23.97%), Psagot (15.09%), Mabat (12.27%), Index (10.08%), Harel (5.31%), and Meitav (2.07%).⁶

Market Shares as of December 2010



ETN issuers are privately owned, reporting companies (hereinafter - "**Reporting Company**"), which are currently subject only to disclosure requirements under the Securities Law. Therefore, and particularly prior to Amendment 17 to the Companies Law coming into effect, they are exempt from various provisions set under the Companies Law for public companies. These provisions require, inter alia, approval of transactions with controlling shareholders, appointment of external directors, appointment of internal auditors, etc. Furthermore, they are not subject to any supervisory requirements of any kind, in contrast to both mutual funds and provident funds.

⁶ At the start of 2011, control of the Tachlit group was transferred from Mr. Michael Davis to DS Apex Holdings Ltd., which controls the Index ETNs Group. Concurrently, in mid-2011, control of the Mabat Group was transferred from Clal Finance Batucha Investment Management Ltd. to Meitav Exchange Traded Notes Holdings Ltd.

This lack of supervision is reflected in ETN-issuing companies being subject only to reporting and disclosure requirements under the Securities Law, while mutual funds are regulated under the Joint Investments in Trust Law which also applies detailed regulatory requirements, and allows for fairly close supervision. Thus, current legislation creates a regulatory arbitrage between products which are extremely similar in nature and purpose.

In light of this regulatory arbitrage, on November 15, 2009, the ISA Plenum approved the proposed amendment to the Joint Investments in Trust Law. Amendment 16 aims to regulate and supervise ETNs in a manner similar to the mutual fund market. In addition, this amendment lays the legal groundwork for regulating Israeli Exchange Traded Funds (hereinafter - "ETFs" a new indexed product similar in nature to American ETFs. Under the proposed amendment, and following its enactment, three types of alternative passive investment products will be offered in Israel: tracking mutual funds, ETFs, and ETNs.

In conjunction with the ETN market's regulation as aforesaid, the ISA also continues to act to expand current disclosure requirements, and regularly reviews ETN issuing companies by examining prospectuses, issuing directives, publishing ISA position papers, and conducting on-site audits. The Investment Department intends to complete an audit round of each ETN issuing company by the time the Amendment comes into effect.

The stability of ETN issuing companies and risk management practices employed by these companies are key issues in this market's transition to a supervisory and regulatory regime. Besides the specific risk to investors by ETNs, these operations also engender system wide risk to the capital market as a whole. Any insolvency by an ETN issuer would require cessation of activities and the sale of publically owned securities held by that issuer. This may lead to a far-reaching drop in securities prices on the Stock Exchange, due to the Israeli capital market's inability to absorb such extensive supply of securities in such a short time, and will thus damage the capital market as a whole.

In this document, we will review the proposed supervisory model, risk management practices employed by ETN companies, and the implications of the various risks for capital allocation requirements.

B. Legislative Framework – Amendment 16 as Regards

ETNs

As aforesaid, in light of the proposed amendment to the Joint Investments in Trust Law (Amendment 16), the ETN market is expected to be regulated under this Law.

The aforesaid Amendment will regulate, inter alia, the following:

1. Establishment of ETNs – ETNs are to be established through agreements signed by ETN management companies, and companies serving as trustees for the arrangement. “ETNs” are to be defined in a manner similar and equivalent to that employed for mutual funds, and ETN issuers are to be defined as ETN managers (equivalent to fund managers). Those ETNs will cease operating under a legal structure which sees them as “debt certificates” issued as a security pursuant to a prospectus, and will migrate to a legal structure essentially similar to that of mutual funds, where investors hold ownership rights in the assets. This transfer of ownership in the assets will improve the legal protection afforded to investors over assets managed by ETN issuers.
2. Backing account - Every ETN manager will be required to maintain a backing account. Backing accounts are accounts maintained by ETN managers, where deposited assets serve to guarantee ETN managers' legal obligations, towards ETN unit holders, and as an incentive for ETN managers to operate responsibly. The amount deposited in the backing account will be dictated by the regulations, according to the capital allocation required under the supervisory model described herein. Backing accounts will be supervised by ETN trustees, and will be adjusted on an ongoing basis. It is emphasized that backing accounts will be kept separate from trustee assets and from ETN manager assets, and will be granted legal protection under the aforesaid legislative amendment. Any non cash capital allocation made in connection with the backing account, shall be subject to a discount mechanism according to the criteria applied to NBCMs.

3. Separation of assets and accounts – In order to guarantee proper management of assets and obligations held in trust on behalf of unit holders, the Law shall include a fundamental obligation to manage each ETN separately, and to prevent property integration across different ETNs. This effectively mitigates the risk of contagion whereby a default in one ETN will serve as an event entitling a call for immediate repayment of all other ETNs managed by that manager.
4. The surplus amount – The surplus amount is any positive balance in underlying assets, in excess of legal obligations towards unit holders. ETN manager shall be entitled to receive the surplus amounts in excess of their obligations towards ETN holders. However, if the backing account accrues a negative ratio between assets and obligations, the ETN manager shall be required to supplement the missing amount.
5. Corporate governance – The amendment will apply those corporate governance principles governing the mutual fund market on the ETN market as well. This is in contrast to the current situation, where the ETN market consists of private companies which are not subject to such rules. Companies will be required, inter alia, to appoint internal auditors, external directors, etc.
- 6.

Main Differences - Comparison

| | ETN (current structure) | ETN (after Amendment 16) |
|-----------------------------|--|---|
| Nature of instrument | Debt certificates whereby issuers undertake to convert the certificate in kind or to a cash value linked to changes in a tracked asset, according to a formula prescribed in a prospectus. | An arrangement between an ETN manager and a trustee, consisting of units each of which grants an equal right in the ETN's assets. ETN assets shall also include an obligation by the issuer to redeem the ETN and pay holders the value of the tracked asset as per a |

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| | | formula prescribed in a prospectus, even in those cases where the value of the ETN assets is lower than the tracked asset. |
| Ownership rights in assets | Assets are owned by the company. Investors are exposed to a risk that the company will be Insolvent. | Assets are transferred to the holders' trustee. ETN managers are entitled to all surplus gains against their obligation towards holders as per the ETN terms. |
| Corporate governance | Issuers are private companies, which are not subject to those requirements set for public companies but only to lesser requirements set for reporting companies under the Securities Law. | All the requirements set for mutual fund managers, including appointment of external directors, competency requirements, and appointment of an internal auditor. |
| Trustee | Obligation to appoint a trustee whose authority is prescribed under the Securities Law. | Obligation to appoint a trustee with extensive supervisory powers, as prescribed under the Joint Investments in Trust Law. |
| Market making obligation | No market making obligation for ETNs. Some ETNs carry a market making obligation pursuant to Stock Exchange rules and regulations. In other ETNs, companies voluntary conduct market making activities. In practice, market making is undertaken by group | ETN managers shall be subject to a market making obligation. Market making will also be permitted by an additional market maker. |

| | | |
|---|---|---|
| | companies. | |
| Asset's investment rules | Investments in underlying assets of tracked assets, derivatives, notes, ETNs, other marketable assets and non marketable assets, all subject to obligations under a prospectus. | Investment rules shall be prescribed in the regulations. |
| Backing account (safety cushion for ETN holders) | None. Most companies maintain accounting equity as per Stock Exchange listing requirements. | A backing account must be maintained for all of a manager's ETNs, and must be regularly matched to obligations. Allocated capital is not measured relative to accounting equity, but relative to the total liquid financial assets held as an effective and readily available safety cushion. |
| Separation of assets and accounts | In practice, different ETN accounts are kept separate pursuant to prospectus obligations. | Mandatory separation of assets and accounts between different ETNs. |
| Risk management | Credit risk management pursuant to voluntary obligations undertaken by issuers. Disclosure of market risks is made pursuant to the Securities Regulations. | Risk management requirements shall be prescribed in regulations enacted under the Joint Investments in Trust Law, based on the models detailed herein. |

C. Risks from ETN Operations - General

As part of their operations, ETN issuing companies are exposed to several risks.

The proposed supervision model addresses the following risks directly:

- a. Operational risk.
- b. Market risk.
- c. Credit risk.
- d. Liquidity risk.

It is noted, that due to the large volume of activity in the ETN market another risk must be considered – the system wide risk. This refers to the risk for possible damage to the capital market as a whole following the collapse of the ETN market. The ETN market is based on the issuers' unconditional obligation to return investors their money, with linkage to the index tracked by that particular ETN. Therefore, the collapse of one ETN is liable to set off a chain reaction which would undermine public confidence in this financial instrument, leading to the collapse of the entire ETN market. ETN trading volumes on the Stock Exchange are high, and many different parties, both private and institutional, invest in these instruments. Therefore, the collapse of the ETN market would materially affect trading on the Stock Exchange, both as regards investing entities and as regards the capital market in general. Thus, it is also paramount from a system-wide perspective to prevent any credit related event in the ETN market.

In the following chapters, each of the above risks will be discussed as it pertains to ETNs. After each risk is presented, we will discuss the regulatory model proposed for the ETN market, including any capital allocation requirements. After discussing these risks, we will discuss the main capital allocation requirements, and their financial implications for existing issuers.

D. Operational Risk

General

The Basel 2⁷ model defines operational risk as: “the risk of loss from inadequate or failed internal processes, people and systems, or from external events”. Operational risk is an inherent and inseparable part of a company's operations. The main challenge posed by this risk is the inability to foresee the maximum

⁷ Basel Committee on Banking Supervision, International Convergence of Capital Measurement and Capital Standards, June 2006

exposure incurred through operational risk, and it is therefore difficult to fully hedge against this exposure. Operational risk may materialize at any point in an organization due to inadequate internal processes, human error, malicious acts, or external events.

ETN managers operations constitute classic financial activity, and are exposed to the range of known operational risks, such as IT failures, embezzlement, etc. However, there are also unique aspects to the ETN market which increase concern for the materialization of this kind of risk. These include:

1. A new market zone – This is a new market zone without extensive risk management experience. In contrast to operations which have been conducted for dozens or hundreds of years, no specific experience has yet been accumulated concerning possible failures.
2. Limited personnel resources – ETN companies are SPCs with limited personnel resources. In contrast to banks, insurance companies and even NBCMs, the ETN market is characterized by very small workforces. As such, there is not enough personnel to maintain different controls and adequate separation of responsibilities.
3. Limited resources - Revenues and profits in the ETN market are not high, while market competition is extremely fierce and drives the price of services down. Therefore, ETN companies have very limited resources for investing in risk management and operational controls.

The Proposed Model for the ETN Market

Licensing and Corporate Governance Rules

Under Amendment 16, ETNs are to be subject to strict regulatory supervision which is currently applied to the mutual fund market. Under this regulatory regime, various rules and provisions shall apply, such as: licensing requirements for issuing ETNs; capability requirements ('Fit and Proper'); Insurance for professional liability and fraud as common for managers of public funds; approval requirements for operational risk management control and enforcement mechanisms employed by company boards of directors and requiring that audit

committees and internal auditors control the actual implementation of these plans. The above measures are to be implemented in conjunction with the establishment of organizational infrastructures and defining processes for monitoring, controlling and mitigating operational risks, along with investment in IT and control systems for risk management purposes. Establishing an organizational infrastructure and defining controls is one of the key changes in the way that ETN issuers operate, and constitutes a paradigm shift in corporate risk management.

Capital Allocation

In addition to the above, ETN issuers will also be subject to capital allocation requirements for covering their operational risk. The capital allocation model is intended to provide management with incentives to establish efficient and effective supervision over ETN related operational risks on the one hand, while laying down a solid foundation for company operations on the other. The proposed capital allocation method is part of a comprehensive capital allocation model for the ETN market, which seeks to mitigate both operational and other risks. The capital allocation model was formulated by the ISA after considering the opinion submitted by Prof. Amir Barnea on behalf of the ETN Association, and with the help of Prof. Zvi Wiener who served as an external consultant for the ISA (hereinafter -"**the Capital Allocation Model**").

The Capital Allocation Model for operational risk in the ETN market was compared with models applied for other supervised entities (banks, insurance companies, provident funds, mutual funds, and NBCMs), while taking into account the unique attributes of the ETN market, similarities and disparities between these operations, and with an understanding that capital allocation alone will not prevent operational risks from materializing.

Under the proposed model, ETN managers will allocate capital for covering operational risks according to the value of the asset under management, as per the following scale:

1. 0.3% of assets under management valued at up to NIS 10 billion.
2. 0.2% of assets under management valued above NIS 10 billion but below NIS 20 billion.

3. 0.1% of assets under management valued above NIS 20 billion.

Furthermore, an initial NIS 20 million capital allocation is prescribed for all ETN managers, for covering operational risk. As such, even ETN managers managing a total of NIS 2 billion will be subject to a capital allocation requirement exceeding the above percentages. In this case, a capital allocation of NIS 20 million (1% of the asset under management) will be required. This initial capital allocation will encourage proper conduct to be maintained, even in companies managing relatively small amounts, and will encourage decision makers in these companies to prevent the materialization of operational risks (First Loss Position).

The ISA shall also be authorized, as per its discretion, to require ETN managers to allocate additional capital of up to one half of the capital amount which they are required to provide under the backing account. This mechanism will serve as a tool for temporarily increasing capital allocation pursuant to a regulatory demand, when the regulating body fears that a manager's operating method or conduct subjects that manager to additional risks, be they operational or other, or when flaws are found in a company's operations. The ISA believes that this tool will be utilized mainly as a response to company audits, when a company is found to be operating in a manner which is not proper for an institution managing public funds. Such a conclusion may be formed due to failure to follow procedures, improper corporate culture, improper corporate governance, etc. The mechanism is intended to increase shareholder interest in developing advanced IT systems, establishing proper managerial culture and corporate governance procedures, to conduct internal audits, and apply the conclusions of these audits both fully and effectively.

E. Credit Risk

General

Basel 2 defines counterparty credit risk as: “the risk that the counterparty to a transaction could default before final settlement of the transaction’s cash flows”.

Credit risk through investment in assets backing the issuers’ obligation involves the risk of insolvency by entities owing money to the company. A default by a

significant portion of these entities may prevent an ETN issuing company from meeting its legal obligations towards its note holders.

Credit risk in ETN issuer operations is due mainly to the following four activities: bank deposits, collateral held by brokers for derivative trading, bank notes and lending of underlying assets.

As part of the present regulatory initiative, the ISA considered the possibility of reducing ETN related credit risk to a minimum, by investing solely in underlying assets. When the underlying assets are themselves under company ownership, the company's right to income is not dependent on the financial position of any intermediary, and the company is not exposed to credit risk. However, this approach of investing solely in underlying assets is impractical in the ETN market, for the following reasons:

1. **ETNs tracking overseas indices** – Coverage through ETNs tracking overseas indices is mainly effected through financial instruments other than the underlying assets. Coverage usually involves futures and bank notes. This is mainly due to operational issues - different trading hours across markets, technical obstacles to conducting continuous trading in some countries, the risk involved in trading in overseas shares (e.g. - handling dividend distributions), the large number of securities on some indices (S&P500, Russel 2000, etc.), the need for effective coverage on amounts smaller than the securities basket included in the index (a potentially high value basket), etc. These kinds of operations also entail higher costs, due to the need to maintain ongoing trading abroad, and due to the purchasing cost of all the securities included in the index.⁸
2. **Composite ETNs** - Over the years, additional "non-ordinary" ETNs have been issued. These include short ETNs, leveraged ETN- with or without balancing mechanisms, commodity ETNs, and more. In these kinds of financial instruments, the use of derivatives and other financial instruments

⁸ It is noted that in local indices too, and mainly in those indices including MAOF shares, coverage involving non-underlying assets also occurs due to economic considerations. Entry of ETN issuers into the MAOF market, has also contributed greatly to increasing the marketability of index-included shares and index-derivatives. However, it is noted, that requiring coverage only through underlying assets will not prevent activity in local indices.

sometimes simplifies coverage (thereby preventing errors and reducing operational risk). Sometimes, this is the only coverage method.

In light of the fact that the decision to limit investment options strictly to underlying assets would lead to undesired results such as closing issuer activities abroad, and shutting down development of the ETN market, the ISA did not adopt this approach. Instead, the ISA considered various ways of minimizing the credit risk inherent in ETN operations.

The Proposed Model for the ETN Market

General

The recent economic crisis illustrated in the starkest of terms the significance of credit risk exposure, even for those largest banks which for years were considered safe. During the crisis, and even prior to it, the ISA had at its disposal one main tool for addressing credit risk - disclosure. As early as August 17, 2008, before the full effect of the crisis was felt, the ISA Plenum approved a draft directive on disclosure of inherent in financial risks in ETN operations.⁹

The ISA's disclosure initiatives, as well as the desire to present investors with solid performance during the recent crisis, led ETN issuers to voluntarily adopt strict credit risk management policies, which significantly reduce their credit risk exposure in their ongoing operations. To this end, all credit risk sources were classified into 3 groups according to their exposure profile, and limitations were voluntarily adopted for each group.

Classification of credit risk sources

According to the model voluntarily adopted by issuers, overseas financial institutions were classified into three groups, based on various different criteria, including their credit rating and CDS price.¹⁰

⁹ A draft directive concerning lending and operations in derivatives, dated August 17, 2008, whose main points were included in the disclosure directive concerning credit risk, market risk and public holdings in financial instruments, dated February 3, 2010.

¹⁰ CDS, or credit default swap, are financial contracts whose price reflects the market-required premium for insurance against an entity's credit risk. CDS prices are used to

The ISA proposes that these classifications be adopted as this method of operation has already been implemented voluntarily by companies, and as this methodology constitutes a best practice methodology for this market. The ISA believes that these criteria should not be limited to overseas banks, and should also be adopted for local banks as well. The main way to examine credit risk in the ISA's model is through the credit ratings assigned by the various rating agencies. Credit ratings are the primary tool used by regulatory bodies to measure credit risk, and despite its limitations, it serves as an important parameter in assessing this type of risk. As no CDS contracts are traded for Israeli banks, the ISA believes that it would not be appropriate to set this as a regulatory requirement. However, investment committees will be required to examine all parameters concerning the stability of credit risk sources, including CDS prices, as relevant.

Therefore, the ISA proposes adopting the classification principles for financial entities constituting sources of credit risk in the ETN market - both foreign and local - and their grouping in accordance with the following parameters:

| | |
|---------|--|
| Group A | <ul style="list-style-type: none"> • Banks; • Reporting corporations or companies in a group constituting a reporting corporation;¹¹ • Entities supervised by an OECD member country; • At least one of the Israeli rating agencies has assigned that entity a credit rating of no less than Aa3;¹² or at least two international rating agencies have assigned that entity a credit rating of no less than A1.¹³ |
|---------|--|

prevent dependency on rating agencies as the sole source of credit risk measuring. As CDSs are marketable instruments, their market price changes quickly, and they are taken to indicate both the existence and the level of risk, even if a rating agency has not yet completed its examination of that entity's credit rating. However, like shares which can drop sharply and then climb back up after several days even if nothing has changed in the company, this index is also susceptible to volatility which makes it difficult for risk managers to use it exclusively.

¹¹ This refers to the corporation being a reporting corporation in its country of incorporation, or in a country where it is listed for trading.

¹² Or AA-, as per the relevant agency's rating scale.

¹³ Or A+, as per the relevant agency's rating scale.

| | |
|---------|---|
| Group B | <ul style="list-style-type: none"> • Banks; • Reporting corporations or companies in a group constituting a reporting corporation; • Entities supervised by an OECD member country; • At least one of the Israeli rating agencies has assigned that entity a credit rating of no less than A1; or at least two international rating agencies have assigned that entity a credit rating of no less than A3.¹⁴ |
| Group C | <ul style="list-style-type: none"> • Banks or brokers; • Un-rate, or alternatively, at least one of the Israeli rating agencies has assigned that entity a credit rating of no less than Baa1;¹⁵ or at least two international rating agencies have assigned that entity a credit rating of no less than Baa3.¹⁶ |

It is noted that, although the model adopted voluntarily by issuers gives equal weight to the credit ratings assigned by Israeli and international agencies, the ISA decided to distinguish between the two in its proposed supervisory model. This distinction is due to the fact that, in general, international rating agencies tend to assign a lower credit rating than their counterparts in Israel. Therefore, the ISA decided to accept an international credit rating in each credit risk group that is lower than the Israeli credit rating. Thus, for example, the first group includes banks with an Israeli credit rating of Aa3, but also banks with a lower international credit rating of A1. This is in contrast to the voluntary model applied by issuers, which required banks to hold an international credit rating of Aa3.

The above classification system will also be used for various purposes under the supervisory model, considering each group, and in accordance with the rules that will apply to each group. In this way, the classification into groups creates an incentive to invest money in higher rated financial institutions. The main

¹⁴ Or A-, as per the relevant agency's rating scale.

¹⁵ Or BBB+, as per the relevant agency's rating scale.

¹⁶ Or BBB-, as per the relevant agency's rating scale.

incentives provided in the model are the different capital allocation requirements for each group, and different disclosure of credit risk profiles, as detailed below.

Practically speaking, overseas banks classified under Group A are the largest banks in the world (which are also not immune to insolvency, as illustrated by the recent crisis). This group also includes the majority of Israeli banks. Today, almost all ETN funds are deposited with Group A banks.

Investment rules

Similar to the legislation regulating investment of funds provided by unit holders in funds,¹⁷ the regulations to be enacted under Amendment 16 to the Joint Investments in Trust Law will include rules, provisions, and regulatory limitations on investment of public funds managed by ETN issuers (hereinafter: "**Investment Rules**"). These investment rules dictate which types of assets are available to ETN managers for investment, and under what limitations. These rules aim, inter alia, to limit and minimize the various risks inherent in ETN operations. Below are several provisions to be included in the investment rules, which are designed, inter alia, to deal with credit risk in the ETN market:

1. **Available alternative** - Each coverage method will also have a readily available alternative. This will provide an "escape route" in case of concern for credit risk materializing, and will allow issuers to manage credit risk in real time. Thus, for example, if a bank where public funds are deposited experiences financial distress (but is still solvent), ETN issuers will have an immediate option of transferring public funds to a different bank or of switching to the alternative coverage which does not involve the risk posed by that particular bank.¹⁸
2. **Liquidity** - Asset liquidity requirements have been set for assets, in order to allow these assets to be transferred to safer locations in times of crisis (in addition to mitigating liquidity risks which characterize ETN

¹⁷ See, for example - Joint Investments in Trust Regulations (Assets That May be Bought and Held by a Fund and Their Maximum Amounts) of 1994.

¹⁸ It must be noted that without maintaining an available alternative, many months may pass until an ETN manager can open an account in another bank. This is particularly true when opening accounts in overseas banks.

operations). Long-term deposits or investment in non liquid assets also lead to ETN managers incurring losses if they decide to sell the assets in the short term. Therefore, the capital allocation model provides a revaluation model which penalizes ETN managers to the full amount of the liquidity risk on non liquid investments, including for interest losses and payment of early withdrawal fines.

3. **Diversification requirement** - Deposits with financial institutions - both in Israel and abroad - will be subject to a maximum exposure limit of 25%, both at the single ETN level and for all assets managed by an ETN manager. A deposit of more than 25% of an ETN's assets in a particular financial institution creates significant exposure for public funds managed through that ETN to that entity's credit risk. Therefore, that financial institution - be it Israeli or foreign - will be required to meet additional conditions:

- a. The financial entity will be classified under Group A in terms of its credit risk exposure profile. One result of this classification requirement is the limitation of these entities' exposure strictly to high rated banks.
- b. The financial entity will be an Israeli or foreign entity which will agree to the ISA's information and document disclosure requirements, so as to enable the ISA to safeguard the interests of ETN investors.

In these banks, an exposure level of up to 50% will be permitted, instead of the 25% limit imposed for other financial entities.

4. **Limiting coverage options using bank notes** - Coverage using bank notes leads to numerous problems. An ISA examination of existing bank notes found that the terms of the notes themselves are not sufficiently clear and are incomplete. Furthermore, note issuing banks limit their obligations, and reserve a virtually unlimited level of discretion in calculating the proceeds upon conversion; as regards repayment options; as regards risk hedging; etc. Today, bank notes are seldom used for coverage, and exposure is estimated at only about NIS 1 billion (less than two percent of all assets under management). Due to extensive exposure to the issuing bank's credit risk, as a result of the difficulty of leaving the

position in times of crisis and due to a lack of commitment by the bank to guarantee the exit price, the ISA decided to prohibit the use of bank notes for coverage. Similar rules will apply to fully funded swap transactions. Use of bank notes for coverage will generally be prohibited, but the ISA reserves the option of permitting such coverage, subject to such restrictions as may be determined (e.g. - exposure limitations, capital allocation, and qualitative criteria).

5. **Unfunded swap contracts** - In light of the ISA's coverage restrictions, some issuers are expected to increase their use of these contracts. The credit risk inherent in these swap contracts arises from the funds held as collateral (margin), and from money which may be due to the bank which is the counterparty in the transaction to ETN issuers as a result of fluctuations in the tracked index. The advantage of using swap contracts is the reduction of credit risk, in light of the fact that the amount deposited in the bank as collateral is estimated at 20% of the total contract. Although this coverage method is more conservative, it still entails credit risks, and so will be subject to capital allocation requirements as detailed below.
6. **Other OTC transactions** - as a rule, these transactions were prohibited. However, it will still be possible to conduct currency transactions with banks, subject to clearly defined procedures and adequate controls.
7. **Exposure to Group C entities** - In addition to applying the existing model on Israeli banks, one of the changes expected to be made in the current voluntary model is a practical restriction on exposure to Group C on a company's surplus liquid financial assets, and not on its accounting equity. Corporate financial statements include non-financial or non liquid assets, such as issue costs (which for accounting purposes are offset against commitments), property plant and equipment, deferred tax assets arising from losses for tax purposes, etc. These assets increase a company's accounting equity, although they cannot be easily or quickly liquefied. Therefore, the ISA will limit exposure to financial institutions classified under Group C strictly to a company's surplus liquid financial assets. This means that investments in these entities will require a capital allocation of 100%.

8. **Entities that are not in Groups A-C** - The ISA will prohibit exposure to credit risk from entities not included in Groups A-C.

Capital Allocation

Practically speaking, it is not possible to eliminate credit risk in the ETN market through reasonable capital allocation requirements. This is due to the fact that a bankruptcy event in a bank may cause an ETN to incur billions of shekels in losses, and no reasonable, balanced capital allocation requirement can compensate for this level of damage.

An initial capital allocation requirement for credit risk will be determined according to the value of the asset under management, as per the following scale:

1. NIS 10 million - for entities managing assets of up to NIS 7.5 billion.
2. NIS 20 million - for entities managing assets of more than NIS 7.5 billion but less than NIS 15 billion.
3. NIS 30 million - for entities managing assets of more than NIS 15 billion.

Furthermore, a capital allocation requirement was prescribed for specific ETN related credit risks. The capital allocation requirement for deposits was set at 0.25% for deposits in Group A banks; 5% for deposits in Group B banks; and 100% for deposits in Group C banks. This allocation method reduces the incentive for investing in non Group A banks, against the additional interest which issuers can expect to receive for investment in such institutions.

As regards lending, the ISA decided that in case of on-call lending meeting one or more of the following conditions, a capital allocation of 0.5% of the lending amount will be required:

- a. Lending involving an Israeli Stock Exchange member, in accordance with the Stock Exchange rules and regulations.
- b. Lending involving a foreign bank or broker, with the terms of the lending transaction reflecting best practice procedures, and the foreign bank or broker, as relevant, commits to depositing collateral of 105% in an account securing the lending (segregate account).

In any case where one of the above conditions is not met, ETN managers will be required to allocate capital at a rate of 100% of their credit risk exposure on the lending.

No capital allocation is required for investments in ETNs issued by competing issuers, as these entities are subject to ISA supervision and operate according to the supervisory model detailed herein. However, this exposure is limited to 5% of the total ETN assets.

Exposure to non-marketable, index tracking financial instruments, such as notes or swap contracts, will also be subject to capital allocation requirements. Note and funded swap transactions with Group A banks will be subject to capital allocation requirements of 1.5% of the transaction value, while transactions with financial institutions from the other two groups will be subject to capital allocation of 100%. Pegging the capital allocation to the transaction value is due to the credit risk inherent in these instruments, as they require financial institutions to pay the full amount of the transaction. However, in unfunded swap transactions, the capital allocation requirement for credit risk exposure in Group A banks will be at a rate of 2% of the total credit risk exposure; transactions with Group B banks will be require a capital allocation of 5% of the total credit risk exposure; and transactions with Group C banks will require a capital allocation of 100% of the credit risk exposure. As credit risk in these transactions arises mainly from index fluctuations until the periodic settling of accounts with the financial institution serving as the counter-party to the transaction, and does not involve the transaction amount, capital allocation requirements are expected to be relatively low, and reflect the lesser risk offered by these transactions.

It is noted that buying notes from banks is expressly forbidden under the investment rules, and will be permitted only in specific cases approved by the ISA, subject to such restrictions as will be determined. Furthermore, note or swap activities not meeting generally accepted and conservative criteria for these types of transactions, will be subject to a capital allocation requirement of 100% of the transaction value. These criteria will be defined under the investment rules.

Disclosure

In February 2010, the ISA published a disclosure directive concerning “Disclosure of Credit Risk, Market Risk, and Public Holdings in Financial Instruments”. The directive requires companies to disclose their credit risk sources - disclosure of material exposure at the individual ETN level, and disclosure of all credit risk at the corporate level. The credit risk carried by an ETN is also expressed in that ETN’s exposure profile - a three-character symbol,¹⁹ describing the ETN’s exposure to shares, foreign currency and credit risk. Disclosure is made regularly on a monthly basis, with any exposure to credit risk leading to a change in an ETN’s exposure profile requiring additional immediate reporting. Disclosure of credit risk sources allows these risks to be presented on the market, and has many uses:

1. **Regulatory supervision** - Allows the risks taken by issuers to be examined, supervised, and when necessary - allows intervention by both trustees and the ISA.
2. **Internal control** - Simplifies internal identification of risks by companies.
3. **Market led supervision** - Disclosing credit risk facilitates market led supervision (by investors, the press, etc.) of this risk, and exposes potential problems.
4. **Competition** - Exposing risks allows a better comparison of different issuers and different ETNs. Use of the abbreviated exposure profile symbol encourages competition for raising the profile and reducing risk.

Summary

There is no doubt that credit risk is the most significant risk in the ETN market. The only way to eliminate credit risk is to prevent the use of non-underlying assets as coverage. However, such an initiative would shut down most of the activity carried out in foreign markets; would increase other risks to a certain extent (mainly market risk and operational risk); and would severely undermine issuer

¹⁹ Exposure profile presentation is based on a similar presentation made in the mutual fund market.

operations. Excessively high capital allocation requirements are also not a practical way of eliminating risk, as increasing capital requirements to levels that allow coverage of such losses (i.e. - 100% allocation), means shutting down the ETN market.

Moreover, any increase in capital allocation requirements also has a negative impact on ETN exposure to credit risk. Increasing capital requirements would force issuers to raise additional capital (e.g. - borrowing by controlling shareholders), and would first and foremost increase return on capital requirements. This increase would create an incentive for increasing yields by taking greater risks, i.e. - depositing money in more risky banks or searching for alternative sources of profit, in places which may lead to other risks, including risk of non compliance with regulatory requirements.

This inability to completely eliminate credit risk mandates that the risk be managed and thereby mitigated as much as possible. The above supervisory framework aims to allow efficient risk management.

F. Market Risk

General

Basel 2 defines market risk as: “The risk of losses in on and off balance sheet positions arising from movements in market prices”. Classic market risk arises from gains or losses due to movements in market prices while holding financial assets. In contrast, for ETNs, market risk is due to exposure created by a mismatch between assets and commitments, i.e. - a mismatch between an ETN’s asset composition and the composition of the tracked index. Thus, for example, a single ETN which carries a commitment to pay the index value against which it maintains only pro rated holdings in that index’s underlying assets, is virtually free of market risk. Accordingly, partial coverage by an index's assets effectively gives rise to the market risk specific to ETNs. Partial coverage can also occur when an ETN is sold (created) or bought (redeemed) by an issuer on the Stock Exchange. If such activity does not include immediate adjustment of coverage, it subjects issuers to market risk.

The Proposed Model for the ETN Market

Market Risk Management and Control Model

As ETN issuers are required to conduct hundreds and even thousands of transactions each day, they are routinely exposed to market risk, even if their coverage method is essentially quite conservative. Therefore, one of the aspects of the supervisory model concerns the management of this risk, its quantification, and prescribing capital allocation requirements for the measured risk. Another aspect concerns reporting and disclosure requirements for market risk and its components. These requirements seek to minimize incentives for risk taking, and to allow more efficient and effective supervision of risk management in ETN companies. As aforesaid, the market risk management and control model was drafted by Dr. Maayana Weissman and Dr. Avi Wohl, and reviewed by Prof. Zvi Wiener on behalf of the ISA.

The model is based on standard and generally accepted market risk management methodology, and accounts for the unique attribute of ETNs - issuing companies' obligation to maintain a high asset to commitments ratio for the ETN (a ratio of at least 1:1). In contrast to the mutual fund market, where fund managers do not guarantee any particular yield and so are not obligated to accurately track any particular index, ETN issuers commit to paying note holders the yield on the tracked index. Therefore, if ETN issuers do not accurately track their index, they will need to supplement payment at their own expense. On the one hand, tens of billions of shekels are managed in this market, while on the other these assets are managed by SPCs with relatively low equity. Therefore, significant tracking errors may undermine an issuer's stability, leading to grave consequences.

The following risk management model is designed to serve three main purposes:

1. To serve as a reporting tool - to the public and to the ISA - concerning the extent of market risk;
2. To serve as an administrative tool for issuing companies - for supervising and controlling market risk;
3. To serve as a basis for determining capital allocation requirements under the comprehensive supervision model for ETNs.

The model is comprised of three aspects, which together form a comprehensive risk management system for ETN companies:

1. Estimating fair value at risk (VaR) at the individual ETN level and at the corporate level, **once a week**;
2. Historical stress testing at the individual ETN level and at the corporate level, **once a week**;
3. In-day stress testing at the corporate level, **every 10 minutes**.

We will now discuss each aspect of the proposed model.

Estimating fair value at risk (VaR) - VaR is a generally accepted parameter for market risk management purposes. This parameter examines the loss which a specific portfolio can expect to incur at a pre-determined probability rate, over a given period of time. For example, a one business day, NIS 1 million, 95% VaR for an ETN managing NIS 1 billion, means that the probability of losses exceeding NIS 1 million is 5%, and vice versa - the probability of the portfolio losing, in one single business day, an amount equal or less than NIS 1 million, is 95%.

The ISA has chosen the historical VaR model,²⁰ which will be measured at a 95% confidence level for one single business day. VaR calculations are to be carried out once a week, as opposed to the current practice of quarterly VaR calculations. VaR will be calculated separately at the individual ETN level and at the corporate level.

Validity testing of the VaR calculation will be implemented by **backtesting**: Retrospective analysis (in general - once a week) of how many times the portfolio incurred a loss exceeding the VaR amount. In the above example of 95% VaR, a deviation is expected in 5% of the cases, i.e. - in these cases losses would have exceeded NIS 1 million. Furthermore, backtest analysis defines “warning signs” -

²⁰ There are also additional methods for calculating VaR - the analytical method and the Monte-Carlo method.

total deviations and consecutive deviations - which require companies to re-analyze their data to make sure that the model is valid.

Historical stress test - Calculating portfolio losses according to changes in risk factors, taking into account actual changes which caused the most severe decrease in portfolio value in the past three years. In this process, the most severe market drops in a specified period, in this case the past three years, are simulated on the portfolio, and the resulting loss is analyzed. This scenario is implemented once a week both for each individual ETN, according to its specific risks, and at the general corporate level. For example, if a portfolio only includes long positions on the US dollar, then the scenario will be based on the week which saw the sharpest devaluation of the US dollar in the past three years. It is noted that in light of the fact that recent years have been characterized by high market volatility, the model applies more stringent criteria for issuers during the initial application period. In 2012, the ISA will examine whether or not it is necessary to include 2008-based scenarios in the aforesaid model.

In-day stress tests - This control mechanism serves as an in-day indication for significant probability for a "catastrophic event", and is implemented every 10 minutes at the general corporate level. This easy to use tool applies simplistic and severe assumptions - it sums the losses incurred through extreme movements in a company's main risks. Furthermore, the scenario is pushed even further by breaking the correlation between risks. Thus, the model ignores the connections between the various risks which, in practice, would prevent the simultaneous materialization of these risks. For example, if a portfolio includes a long position on a company's share, and a short position on shares of a subsidiary of that company, the in-day stress test would consist of the sum of losses incurred through a drop in the company's share price and an increase in the subsidiary's share price. If the sum of these losses exceeds the amount in the backing account, this constitutes a deviation requiring attention, and if necessary would lead to changes in the portfolio and to VaR calculations being conducted at the end of that day.

The model includes documentation requirements for analysis results, deviations, and explanations for such deviations.

No one aspect of the model suffices by itself. The VaR model is not perfect, and is based on various assumptions and calculation methods, and even stress test scenarios are based on numerous assumptions. However, the integration of the various aspects creates a comprehensive supervisory model which significantly improves companies' ability to manage and control their market risks. The assumption is that in the near future, after the above model is applied and actual results and actionable conclusions are recorded both by the ISA and ETN issuers, additional improvements and adjustments will be made in the model. At this point in time, as we are dealing with a new model, which can be applied in many different ways, the ISA emphasizes the fact that the model will provide results supporting comparison of different ETN issuers. Therefore, the discretion afforded to companies under the model is relatively limited. This allows the model to be applied as uniformly as possible, and prevents manipulation and implementation in a manner that is beneficial to any one company. One implication of the ISA setting criteria, is the need for service providers in this field to adjust those models with which they are currently familiar. Therefore, at this stage, these criteria may serve as a temporary entry barrier for additional parties providing risk management services.

In the past two years, ETN issuers have worked on developing and implementing the proposed model. Weekly VaR measurement and weekly stress tests are already in use by ETN issuers (even if they are not yet applied in full according to the model). In-day stress testing is expected to be fully applied towards the end of 2012.

It is noted, that rated ETNs limit maximum exposure (mismatch relative to an index's composition) at the individual underlying asset level (e.g. - the individual share level). In light of existing internal models and the proposed capital allocation requirements, the ISA did not deem it necessary to go down to the individual share exposure level. However, the ISA believes that after testing the proposed model over time, it will be necessary to consider imposing specific

exposure restrictions at the individual share level, or alternatively to impose disclosure requirements concerning this exposure.

Investment rules

In addition to those restrictions prescribed under the market risk management and control model, ETN investment rules are another aspect of the supervisory model which mitigates market risk. These rules state that investments can only be made in assets included in an index or financial assets tracking those assets. The rules also limit the duration of contracts and deposits in which ETN managers can invest, and emphasize investment in short duration investments. Limitations have been set on an ETN's holdings in a specific asset, so that the sale of that asset (closing the position) will not cause material volatility in the value of that asset.

Capital Allocation

The capital allocation model proposes the following capital allocation requirements for market risks:

1. Capital requirements are determined according to the higher of either three times the one day 95% VaR value, or the measured weekly stress test scenario. It is noted, that strict rules will also be set for the maximum permitted exposure (in addition to its measurement). Each company will be obligated to keep its exposure level below a maximum VaR level of 0.15% of the ETN's assets.
2. A minimum capital allocation of NIS 5 million will be required to allot against market risk.
3. Limit for in-day stress tests - this amount will not exceed the value of the backing account.
4. If the number of deviations in in-day stress testing exceeds five deviations in one calendar month, then **at the end of the day in which the fifth deviation was measured**, the VaR value will be calculated and a historical stress test will be carried out. The capital allocation requirement will equal three times the VaR value measured that day, and no less than the stress

test scenario measured that day. This extraordinary capital allocation will be made within 3 business days, and will remain valid for three months or any other period as determined by the ISA.

5. If backtesting results exceed the maximum permitted number (i.e. - warning signs have been identified), then the capital allocation for the VaR will be increased to **four times** the VaR instead of three times that value. This increased capital allocation requirement will remain in effect until the later of either six months or until correction of the model with the ISA's approval. The additional allocation will be made within 3 business days from the date on which the permitted number of deviations was exceeded.
6. The current exposure limit will continue to apply to ETN issuers, as part of these companies' risk management policies. This limit states that the total exposure (defined as a mismatch between assets and liabilities) at the end of each day will not exceed the higher of either NIS 100 million or the total value of assets in the backing account.

G. Liquidity Risk

General

Liquidity risk reflects exposure to shortages of cash or available credit facilities for conducting operations²¹. When issuers immediately require liquid assets, the materialization of this risk may lead to assets being sold at a loss, and may even lead to insolvency. When dealing with ETNs, exposure to liquidity risk is particularly important in light of the nature of this product as a debt certificate granting its holder a right to daily conversion. Thus, for example, an issuer's inability to convert backing assets into the type of asset which it has undertaken to provide to holders (the underlying asset or cash, as relevant),²² means that the issuer will violate its obligation towards the holders, on all that this entails.

²¹ This risk is not expressly defined in Basel 2. Regulation 342 of the Proper Conduct of Banking Business Regulations defines it as: "The risk to a banking corporation's profits and capital deriving from an inability to supply its liquidity requirements".

²² In some ETNs conversion is for cash, and so the risk involves conversion of various assets (shares, futures, etc.) into cash. On the other hand, in other ETNs, conversion is in kind, i.e. -

ETN issuers are exposed to liquidity risk under several circumstances, including:

1. **Transaction size** - Large-scale transactions may impede an ETN's redemption on the market, thereby causing an issuer liquidity difficulties when trying to transfer the underlying asset or its cash equivalent to holders;
2. **Lending** - As the majority of lendings are on call, the lender may "call" on the loaned asset immediately. An ETN issuer who loaned the asset (e.g. - when dealing with short ETNs) would then be required to quickly buy back the loaned asset (as the asset was sold in the meantime). This may expose the issuer to liquidity risk;
3. **Futures** - Futures trading exposes issuers to liquidity risk based on the duration of the contract and the issuers' holdings in these contracts, when a contract is for a certain period of time but issuers are required to sell them before their expiration date.
4. Coverage using **non-marketable financial assets** (such as note-type debt certificates).

The Proposed Model for the ETN Market

Prospectus provisions

Currently, common practice under the prospectus provisions prescribes various mechanisms designed, inter alia, to minimize liquidity risk. These include days on which the issuer will not accept conversion notices from holders; stating that conversion proceeds will be delivered to holders according to the closing price of the tracked underlying asset on the specified conversion date,²³ which allows

for securities included in the index. In this case, risk arises when coverage is through means other than these securities.

²³ The date of record for conversion is defined in the prospectus and derived from the type of conversion - conversion at the holder's request or forced conversion.

issuers to sell coverage assets and transfer conversion proceeds to holders according to the selling price on the exchange,²⁴ no matter how low; and more.

Investment rules

Investment rules for ETN issuers set limitations which significantly reduce liquidity risk exposure. Liquidity risk-relevant rules include the following:

1. Issuers will be allowed to invest only through securities listed on the exchange and included in the tracked index;
2. Setting a maximum limit on holdings in a security, both at the manager level and at the security issuer level, relative to all securities traded on the exchange;
3. Issuers will be permitted to obtain credit from banks, subject to trustee supervision, in order to bridge timing differences in payment clearing or in order to implement investment policies adopted by their board of directors so as to allow an index to be tracked (e.g. - for coverage using short ETNs and leveraged ETNs). In contrast to the provisions applicable to mutual funds, no restrictions of credit leveraging will be imposed on ETN issuers;
4. Issuers will be permitted to buy marketable contracts on the underlying asset or its components. Issuers may hold short contracts only and in any case a contract's duration is not to exceed six months. Furthermore, in order to undertake a contract not traded on the Stock Exchange, the contract must meet minimum trading volume restrictions. Issuers will be required to comply with maximum limits on their contract holdings;
5. In general, investment in non marketable assets such as notes or ETNs will not be permitted;

²⁴ Similarly, for commodity ETNs tracking futures prices on commodities, conversion proceeds are determined according to the bid prices on these contracts at the dates prescribed in the prospectus. This allows companies to sell their coverage contracts without price exposure.

6. Coverage using swap contracts will be permitted subject to a daily exit right from the contract according to a pre-agreed formula. Furthermore, revaluation of the contract will be based on its value upon conversion;
7. Each issuer will be required to hold more than one active bank account for each ETN. The concern is that issuers will find themselves in a position where they cannot issue orders to a particular bank, including withdrawals, coverage transactions, etc. This may be due to an extreme scenario such as insolvency, or due to technical problems with a bank's services. Maintaining several active bank accounts may mitigate this risk;
8. Cash deposits will only be permitted in commercial banks. Cash may be deposited in up to three-month deposits (unless board of directors' approval has been obtained for a longer deposit period which is not to exceed six months, and such deposit was publically disclosed). The deposit is to be revaluated based on its immediate withdrawal value (and will therefore account for interest losses and penalties);
9. Lending is prohibited, except for lending of underlying assets through short ETNs and subject to such restrictions as will be determined.

Capital allocation for deposit revaluations

In addition to the above restrictions, ETN issuers will be subject to a **100% capital allocation** requirement for any possible monetary loss for early withdrawal of funds. Therefore, the supervisory model, as detailed above, specifies that deposits are to be revaluated at their immediate withdrawal value, which accounts ahead of time for interest losses and penalties through early withdrawal. Thus, issuers provide additional amounts against liquidity risk.

H. Capital Allocation Model

General

As previously detailed for each risk factor, the capital allocation model requires each manager to allot a pre-determined sum as an initial capital allocation. This

amount will be supplemented by additional capital allocations for each risk, so that when a particular risk component changes and in case of any increase or decrease in risk, the allotted capital will be adjusted accordingly. This section details the principle capital allocation requirements for ETN managers, and their monetary implications.

The supervisory model was drafted in collaboration with ETN managers, with an aim to develop a model which allows ETN managers to comply with capital allocation requirements, while simultaneously providing negative incentives to risk taking. Discussions held with issuers and the capital allocation requirements under the proposed model, were both based on a clear understanding that excessively high capital allocation requirements would drive issuers out of the market, in favor of managing tracking mutual funds and ETFs. Therefore, the capital allocation model seeks to balance the need for capital allocations to be made against risk exposure, and existing capital limitations in the market. The capital allocation requirements do not guarantee the stability of the ETN market, but rather create an incentive encouraging conservative operations and “penalizing” companies for risky behavior.

The model was drafted by the ISA, and was formulated in collaboration with Prof. Amir Barnea on behalf of the ETN managers Association and Prof. Zvi Wiener as an external advisor on behalf of the ISA.

Capital Allocation Under the Model

A. Capital allocation for operational risk

The minimum capital allocation for operational risk will be NIS 20 million. This allocation constitutes an initial allocation and is not dependent on the asset under management. However, this allocation constitutes a minimum amount only. The model also prescribes capital allocation requirements according to the total value of the asset under management. The additional capital allocation requirement for operational risk is as follows:

Capital allocation for operational risk

| Capital Allocation | Allocation for operational risk |
|---------------------------|---|
| 0.3% | For assets under management below NIS 10 billion |
| 0.2% | For assets under management between NIS 10 billion and NIS 20 billion |
| 0.1% | For assets under management exceeding NIS 20 billion |

B. Capital allocation for credit risk

The initial capital allocation for credit risk depends on the value of assets under management:

Initial capital allocation for credit risk

| Capital Allocation | Initial allocation for credit risk |
|---------------------------|---|
| NIS 10 million | Entities managing assets of up to NIS 7.5 billion |
| NIS 20 million | Entities managing assets between NIS 7.5 billion and NIS 15 billion |
| NIS 30 million | Entities managing assets in excess of NIS 15 billion |

In addition, the model requires additional capital allocation for credit risk arising from an ETN manager's operations and according to the classification of the financial entity to which a company is exposed.

Capital allocation for credit risk on deposits

| Capital Allocation | Group |
|---------------------------|--------------------------------|
| 0.25% | Group A banks |
| 5% | Group B banks |
| 100% | Group C financial institutions |

In the case of lending, a capital allocation of 0.5% of the total value of loaned assets is required for lending which does not meeting one of the following criteria:

- a. lending involves an Israeli Stock Exchange member, in accordance with the Stock Exchange rules and regulations.
- b. Lending involves a foreign bank or broker, its terms reflect best practice procedures, and the foreign bank or broker commits to depositing collateral of 105% in an account securing the lending (segregate account).

In any case where one of the above conditions is not met, ETN managers will be required to allocate capital at a rate of 100% of their credit risk exposure on the lending.

Capital allocation for lending

| Capital Allocation | Type of lending |
|---------------------------|---|
| 0.5% | Lending according to the above criteria |
| 100% | Lending not according to the above criteria |

Furthermore, a capital allocation framework was prescribed for notes- and swap transaction-based activities (as may be permitted).

Capital allocation for notes and swaps

| For unfunded swaps | For notes and funded swaps | |
|----------------------------------|-------------------------------|-------------------------------------|
| 2% of the credit risk exposure | 1.5% of the transaction value | With Group A banks |
| 5% of the credit risk exposure | 100% of the transaction value | With Group B banks |
| 100% of the credit risk exposure | 100% of the transaction value | With Group C financial institutions |

For transactions involving these instruments, which do not meet best practice criteria reflecting conservative conduct in these types of transactions, a capital allocation of 100% of the transaction value will be required. These criteria will be defined under the investment rules.

No capital allocation is required for investments in ETNs issued by competing issuers, as these entities are subject to ISA supervision and operate according to the supervision model detailed herein. However, this exposure is limited to 5% of the total series assets.

C. Capital allocation for market risk

The initial capital allocation required of an ETN manager for market risk will be no less than NIS 5 million. Additional allocation for this risk will be required at a rate of no less than three times the maximum VaR measured during that month, or in the weekly historical stress test measurement.

Capital allocation for market risk

| | Allocation Rate |
|--------------------|-----------------|
| Capital allocation | The higher of: |

| | |
|--|---|
| | <ul style="list-style-type: none"> a. 5,000,000 b. VaR x 3 c. Weekly historical stress test |
| <p>Deviations:</p> <ul style="list-style-type: none"> • Allocation for 5 deviations in one month of in-day stress testing <p>Allocation for failed backtesting</p> | <ul style="list-style-type: none"> • The higher of either the original allocation amount, 3 times that day's VaR, and the stress test scenario measured that day <p>Increasing allocation to 4 times VaR</p> |

D. Capital allocation for liquidity risk

The prescribed investment rules require that investments be made in liquid assets. In case of a lack of immediate liquidity, ETN managers are penalized and required to allocate capital accordingly. The main liquidity risk is due to deposits for periods exceeding one business day. Therefore, investments in deposits are revaluated at their immediate withdrawal value, which accounts for penalties and interest losses upon early withdrawal. Thus capital is effectively allocated for risk of early deposit withdrawal at a rate covering 100% of this liquidity risk.

One exception in this case is liquidity risk incurred through contract based coverage, for which no capital allocation is prescribed. This risk is hedged, inter alia, through various investment limitations, which set minimum marketability and liquidity criteria as binding pre-requisites to investment in these instruments.

E. Additional equity allocation

The ISA shall be authorized, as per its discretion, to require ETN managers to allocate additional capital of up to one half of the capital amount which they are required to provide under the backing account. The ISA is expected to exercise this authority due to improper conduct by ETN managers; when failures are found; due to inadequate investment in control processes, personnel and adequate technological means; or in other cases where the ISA is concerned with possible

materialization of any ETN related risks, or due to improper handling of these risks.

Actual Implementation - Capital Allocation in the ETN Market

In order to provide an indicative picture of the capital allocation model's full application, the following table provides approximated calculations which illustrate the capital requirement required under the proposed model for three ETN managers.

Capital Allocation in the ETN Market - Actual Implementation (indicative data)

| Small Company | Medium Company | Large Company | |
|--|--------------------------|--------------------------|---|
| | | | <u>Capital allocation for operational risk</u> |
| 4,000,000,000 | 8,000,000,000 | 17,500,000,000 | Value of assets under management |
| <u>20,000,000</u> | <u>24,000,000</u> | <u>45,000,000</u> | Capital Allocation |
| <u>Capital allocation for market risk</u> | | | |
| 150,000 | 300,000 | 1,500,000 | VaR |
| 350,000 | 1,200,000 | 5,500,000 | Stress test |
| <u>5,000,000</u> | <u>5,000,000</u> | <u>5,500,000</u> | Capital allocation |
| <u>Capital allocation for credit risk</u> | | | |
| 750,000,000 | 1,300,000,000 | 6,500,000,000 | Deposits with Group A banks |
| 0 | 0 | 0 | Deposits with Group B banks |
| 0 | 5,000,000 | 5,000,000 | Deposits with Group C financial institutions |
| 170,000,000 | 400,000,000 | 750,000,000 | Criteria compliant lending |
| 0 | 0 | 0 | Non compliant lending |

| | | | |
|--------------------------|--------------------------|---------------------------|---|
| 100,000,000 | 200,000,000 | 300,000,000 | Notes and funded swaps (Group A banks) |
| 0 | 0 | 100,000,000 | Credit risk exposure through unfunded swaps (Group A banks) |
| <u>14,225,000</u> | <u>33,250,000</u> | <u>61,500,000</u> | Capital allocation |
| | | | |
| <u>39,225,000</u> | <u>62,250,000</u> | <u>112,000,000</u> | <u>Total capital allocation</u> |

Capital Allocation Methodology

Under Amendment 16 to the Joint Investments in Trust Law, each issuer will be required to maintain a backing account. Assets deposited in these backing accounts will secure issuers' commitments towards ETN holders. Backing account assets will be held separate from trustee assets and ETN manager assets, and so, in general, non holder creditors will not be entitled to payment from this account. Upon 16th Amendment coming into effect, allocated capital will be deposited as financial assets in the backing account, which may be foreclosed if necessary. This capital allocation will serve as an effective safety cushion, independent of accounting capital calculations. Until then, capital allocation will be made as part of a company's equity, which will be calculated as aforesaid according to the surplus liquid financial assets, and not according to that company's accounting equity.

ETN managers will have several options for allocating capital:

1. Cash deposits in their backing account;
2. Depositing other assets in the backing account, subject to "Discount Mechanism" at a rate prescribed according to the rules applied for NBCMs.

Capital Allocation Model Rollout Schedule

The above capital allocation model will be set forth in regulations to be enacted in conjunction with 16th Amendment. However, in light of the great importance of this issue to the capital market in general and the ETN market in particular, after the supervisory model's approval, the ISA will instruct ETN issuers to report their operational capital allocation to investors according to the criteria set forth in the capital allocation model. This requirement will be effected as an "adopt or disclose" requirement.

I. Supervision

Establishment of a risk management system, especially in entities managing public funds and certainly in entities managing complex activities such as ETNs which are exposed to stability risk, is not a onetime project of defining controls and capital allocation. Risk management systems include ongoing examination of existing risks, verifying that risks are measured appropriately, and defining various different risk management controls and mechanisms. Corporate risk management also encompasses an organizational culture supporting the risk management process, including not only monetary investment in both IT and personnel, but also accepting the view that company operations involve risks that must be managed and hedged.

Reinforcement of supervision and control mechanisms was already initiated in 2008. This process is being carried out in collaboration with issuers, and with an understanding that reinforcing the supervisory mechanisms is an interest not only for regulators, but for the ETN market in general.

The above supervisory model defines investment rules for assets under management; provides a model for hedging against credit risk; includes regular measurement of market risk; allocates capital for the various risks; and more. However, the model cannot stand on its own. The limitations and provisions that were determined in the supervisory model must be supported by a formal system for supervising risk. This supervision must regularly examine the various risks and both the ability and need to hedge against them. The supervisory framework begins with the regulator, in this case the ISA, continues with the gatekeepers

(trustees, auditors, legal advisers, etc.), and ends with the organizational culture and internal controls in the supervised company.²⁵

This approach corresponds with current methodology applied by banks (Basel II) and insurance companies (Solvency 2). Under this approach, capital allocation is only the first stage of risk management. The second stage requires ongoing examination of risks by both companies and supervisory bodies, with supervisors charged, among other things, with assessing risk management and capital adequacy. The third stage pertains to transparency and disclosure requirements, that provides allows himself to be supervised by the market. This stage is also reflected in the ISA's supervisory model.

Following is a description of the supervisory process, from the company, through to the trustee who serves as the main gatekeeper under the Joint Investments in Trust Law, and culminating in the ISA's role under this supervisory model.

Companies

Liability and corporate governance rules under 16th Amendment- Improvement of risk management by issuing companies is achieved in a number of ways. The most basic framework provided under Amendment 16 is the reinforcement of liability and corporate governance rules among companies, and equating these requirements with those applied to mutual funds. Corporate governance rules refer, inter alia, to the board of directors' duty to set forth procedures which guarantee that risks are managed according to the policy that was determined by the company, and the investment committee's duty to prescribe the manner in which the ETN's operation is carrying out its investments. Furthermore, the board of directors must appoint external directors. Limitations have also been imposed on employees engaged in risk management. These limitations pertain to employment in a position involving portfolio management decisions. The investment committee's duty to examine risks is also anchored in the investment rules formulated for the ETN market. Whenever different alternatives must be considered for an investment, the investment committee has

²⁵ Rating agencies serve as an additional key supervisory body. These agencies rate certain ETNs taking into account, inter alia, the credit risk on those entities where funds are deposited, exposure to various underlying assets, but also aspects of ETN management and operation which encourage adherence to a certain standard of management and supervision.

been charged with making sure that the chosen alternative meets adequate risk management rules.

IT systems - Another key change planned for the ETN market is the establishment of formal operational infrastructure at the management company level. This requires significant monetary investment in establishing IT systems that will enable not only ongoing trading, but risk measurement and management. Thus, for example, the requirement that stress test scenarios be measured during the course of in-day trading (every 10 minutes) is not only a tool for regular measurement of market risk. It also mandates the deployment of IT systems that can read the issuer's position at any given moment. This operational infrastructure is not currently available in the companies, and its deployment is expected to be a significant improvement in issuers' control over public funds under their management and risks thereto.

Organizational aspects - The required infrastructure involves more than just physical infrastructure. Implementing controls over operations, whether pursuant to regulatory requirements or pursuant to management requirements, necessitates allocation and training of competent personnel. As activities have grown, companies have developed a financial risk management function, and personnel allocation to risk management units has increased. Most companies conducted risk surveys of their own accord, in which they examined operational risks, as well as methods for handling communication systems failures, power outages, information security issues, embezzlement, etc. All companies operate under the auspices of either investment houses or insurers, and are subject to internal audits by these bodies. The legal risks are addressed on the company level, and most issuers employ legal advisers within the group aiming to improve the legal services of the company itself.

All those consultants who assisted in developing the risk management model, whether on behalf of the ETN Association (Dr. Maayana Weissman, Dr. Avi Wohl, and Prof. Amir Barnea) or on behalf of the ISA (Prof. Zvi Wiener), stressed the importance of establishing a risk management function at the individual company level, who will be responsible for examining, measuring, and managing risk. The recommendation was for risk management officers to be members of management, be directly subordinate to the CEO, and submit reports to the CEO,

the investment committee, and the board of directors. The ISA intends to adopt this recommendation, so as to emphasize the importance of corporate risk management, and require companies to allocate the appropriate resources and authority for addressing this subject.

Corporate risk management procedures will be subject to ISA supervision, and today it already constitutes one of the material issues examined in regular audits conducted by the ISA, as detailed below.

Trustee

Expanding trustees' supervisory powers - Under the Securities Law, ETN trustees are required to safeguard the interests of ETN holders, and comply with the provisions of the indenture. Indentures for the various ETNs provide for a company's duty to maintain at least a 1:1 ratio between ETN assets and commitments, and require companies to report to the trustee on this matter. This mechanism is one of the most significant tools protecting an ETN's value.

As part of the regulation of the ETN market, even today, prior to Amendment 16 coming into effect, particular emphasis has been placed on reinforcing trustees' supervisory powers. Initially, the ISA has emphasized that trustees be granted direct access to ETN bank accounts, so that they can independently supervise ETN assets. As a second stage, the ISA initiated a process which will grant trustees access to IT systems used by companies to value assets. This will provide trustees with a simple tool enabling ongoing supervision. This initiative coincides with the ISA's policy of reinforcing trustees' position as gatekeepers.

Changing trustee responsibilities under 16th Amendment- With Amendment 16 coming into effect, a significant change is expected to take place in trustee responsibilities, and consequently in their method of operation. Trustees will cease operating as passive trustees (under the Securities Law) and will become active trustees (under the Joint Investments in Trust Law). First, in contrast to the existing situation where assets are owned by issuers, the Joint Investments in Trust Law states that assets will be granted to trustees, who will hold them in trust on behalf of ETN holders. Furthermore, according to the Amendment, trustees

will be required to monitor compliance with the Law, including as regards ETN management. As such, trustees will actively examine ETN operations, including by auditing ETNs under their trust. This increase in responsibility and operations is expected to be accompanied by a corresponding increase in trustee compensation, and to reflect their new role as entities holding supervisory responsibility over the ETNs with which they are entrusted.

The ISA

The ISA is also faced with a new challenge - managing ETN risks. Transition to a “supervisory” regime will allow the ISA to enact regulations governing existing ETN risks, thereby significantly mitigating those risks. Under the current legal framework, risk levels are defined by issuers, who are only required to disclose this risk level. A transition to a regulatory and supervisory regime as detailed above will allow the ISA to enact positive provisions, by setting limitations on market risk, instituting provisions for mitigating liquidity and credit risk, and prescribing binding mechanisms for monitoring the materialization of operational risk. Furthermore, the ISA is required to supervise the risk management framework in the ETN market, and to examine the way in which ETN risks are managed. For this purpose, the ISA must implement processes similar to those implemented by issuers.

IT systems - The ISA is in the process of migrating corporate reporting to a format that will enable data to be recorded by the ISA’s IT systems. This will facilitate development of an automatic control system, such as the one implemented for the mutual fund market.

Establishing a risk management function in the ISA - Here, too, in addition to physical infrastructure, the ISA must establish an internal risk management function. This function will be charged with monitoring risk management activities carried out by issuing companies on the one hand, while managing ETN related risks with a comprehensive system wide view on the other. For this purpose, the ISA first and foremost must invest personnel and time in adequate risk management training, both for financial risks and operational risks, while examining existing risk management methodology in the ETN market and in

similar entities. In light of this market's complexity, the ISA sometimes enlists external advisors for examining specific issues.

Audits - Today, the ISA already supervises operations carried out by issuing companies through pre planned audits. The ISA intends to audit all ETN issuers in the next two years, with audits already having been completed in two groups of companies. Furthermore, in preparation for auditing issuing companies, and in order to streamline the auditing process, all companies have been requested to provide the ISA with information concerning their risk assessment and management methodology, including risk assessments and findings from internal audits conducted since January 2008, corporate procedures, and protocols from the board of directors.

Disclosure

In supplementation to risk management processes instituted throughout the market, the ISA is acting to regulate corporate reporting requirements. In addition to public disclosure supporting valuation of issued ETNs, these reporting requirements also enable market led supervision. Current corporate reporting requirements include:

1. Daily reporting of parameters used in ETN valuations;
2. Monthly reporting of credit risk sources and an ETN's credit risk exposure;
3. Monthly reporting of public holdings in ETNs (creation/redemption);
4. Quarterly reporting of corporate market risks - sensitivity analyses, VaR, stress tests.

This disclosure framework is continuously undergoing improvement, and is transitioning to a reporting format which allow data to be automatically recorded by IT systems. As a future direction, the ISA has recently began considering the need for full disclosure of all ETN assets, similar to the disclosure required for mutual funds.

Information at hand creates a high level of transparency concerning the manner in which ETNs operate, and allows effective supervision by the capital market and public investors.

J. Conclusion

The supervisory model for the ETN market is one of the most important aspects in regulating this market, as ETNs constitute legal commitment and involve investment of public funds. The importance of regulating this market is especially important in light of the large volume of activity on the ETN market and the system wide risk which a possible collapse poses for the capital market as a whole. This document reviewed the four principle risks for this market's stability: operational risk, credit risk, market risk, and liquidity risk. This document proposes "tool box" which includes a regulatory framework to be prescribed under Amendment 16, a credit risk model, investment rules, capital allocation, market risk measurement models, and more. This tool box seeks to minimize the ETN market's exposure to these risks, as summarized below:

Operational risk - Allocating capital for operational risk does not guarantee against the materialization of this risk and its resulting damage, as operational risk cannot be quantified in advance. Therefore, the proposed model emphasizes both reinforcement of corporate governance among issuers, and establishment of corporate IT and control systems. The proposed capital allocation model (initial allocation and allocation for operational risk) is derived from models applied to other supervised entities, with specific adjustments to the ETN market, and in general is both strict and conservative in nature. This model constitutes a comprehensive and significant improvement in management and control measures implemented by ETN issuers.

Credit risk - Credit risk is the most significant risk posed by the ETN market. The only way to eliminate credit risk is to prevent the use of non underlying assets as coverage. However, such an initiative would severely undermine issuer operations, increase other risks (mainly market risk and operational risk), and shut down most of the activity carried out in foreign markets. Excessively high capital allocation requirements are also not a practical tool for eliminating this risk. Increasing capital allocation to levels that would allow coverage against credit risk losses would shut down the ETN market or create an incentive for increasing yields through increased risk-taking. This document proposes that credit risk be mitigated as much as possible by defining rules and models that allow efficient

management of credit risk, primarily: instituting a credit risk model where the majority of funds are deposited in high rating banks and regularly examining their risk levels; maintaining cash liquidity and back-up measures that would allow funds to be transferred in times of crisis; diversifying investment sources; creating a negative incentive for risk taking by instituting differential capital allocation requirements according to credit risk levels; regular disclosure of risk sources, which allows supervision; etc.

Market risk - In order to quantify and manage market risk, use is made of the VaR model and stress test scenarios. This methodology is similar to that employed by other supervisory bodies in general, and by banks in particular. Capital allocation against market risk is based on measurements using the VaR model and stress test scenarios, and increases capital requirements in case of measured deviations. The proposed model for the ETN market coincides with the other models, and applies a strict and conservative approach, while instituting clear rules that allow comparison between market players.

Liquidity risk - The supervisory model seeks to limit ETN issuer liquidity risk on two key levels - liquid asset based coverage pursuant to clear and formal investment rules; and imposing limitations on the conversion process. Whenever liquidity risk arises, such as in bank deposits, the model goes so far as to require capital allocation amounting to 100% of the liquidity risk.

The capital allocation model will be anchored in regulations to be enacted in conjunction with Amendment 16. However, in light of the great importance of this issue to the capital market in general and to the ETN market in particular, until these regulations come into effect, the ISA will prescribe “adopt or disclose” requirements, so that ETN company operations will be transparent and open to the public. As regulating capital requirements under the backing account requires legislative amendment, reporting in the interim stage will reflect ETN companies’ surplus liquid financial assets. Furthermore, reporting requirements will reflect the structure of the ETN issuer market after consolidation of the Tachlit-Index and Meitav-Mabat groups. In the past, companies in each of these groups were managed by separate ETN managers. However, following their merger, they are managed together under one investment house. Under the prescribed capital allocation rules, each group will be required to maintain one backing account, and

so they will be considered jointly under the "adopt or disclose" requirement. Adoption of the investment rules is expected to be implemented gradually by issuing companies, even prior to approval and application of Amendment 16.

However, even the "tool box" that were mentioned above are not a perfect solution for stability in the ETN market. Neither the proposed model, nor any existing model applied in other supervised markets, including those considered as having the highest level of supervision, can provide absolute protection against an issuer's default in case of a significant risk materialization event, as credit risk. The risks inherent in ETN operations cannot be eliminated, and therefore must be managed in a coordinated manner. Establishment of a risk management system for complicated operations such as those carried out on the ETN market, which are exposed to stability risks, includes ongoing examination and supervision of risks, defining measurement methodology, and prescribing risk management controls and mechanisms. The proposed "tool box" must be supported by a formal system of risk supervision, which will regularly monitor both risks and hedging options, both by issuing companies and by the supervisory bodies - the trustee and the ISA. Supervision of risks must lie at the heart of the supervisory model, not only through monetary investment in systems and personnel, but as an organizational world view.