

Chapter 1

Indirect Investing Through Mutual Funds

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Definitions for Investing

- Return = $\frac{\text{Interest or Dividends} \pm \text{Price Change}}{\text{Initial Investment}}$
- Risk = Variation (or range) of possible returns
- **Goal => Maximize return and minimize risk**

Seeking Higher Returns (for Same Risks)

- Random walk
 - No predictable relationship between past changes and future changes in stock prices
 - Based on extensive empirical studies

Seeking Higher Returns (for Same Risks) (cont.)

- Efficient market hypothesis (EMH)
 - Theory regarding information content of market prices
 - May explain random walk studies
 - Paradox of EMH and value of research
- Behavioural finance
 - Most investors do not behave perfectly rationally, but are influenced by psychological factors

Reducing Portfolio Risk

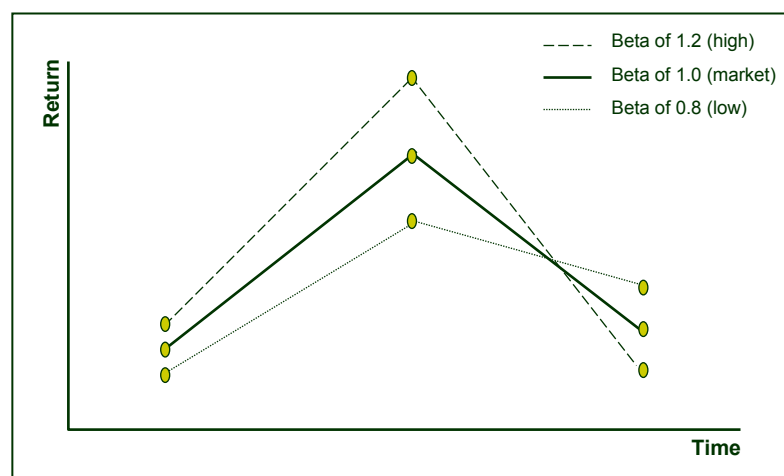
■ Alpha risk

- Individual stock risk; can be reduced by diversification

■ Beta risk

- Stock market risk; cannot be reduced by diversification

Beta Illustration



Investing Through Mutual Funds

- Pros
 - Diversification of risk
 - Lower administrative costs
 - Investment expertise
 - Daily liquidity
 - Broad range of services
- Cons
 - Lower chance of “home runs”
 - Must pay management and other fees
 - No control over timing of realized gains
 - Potential exposure to fiduciary risk
 - Possibility of low relative returns

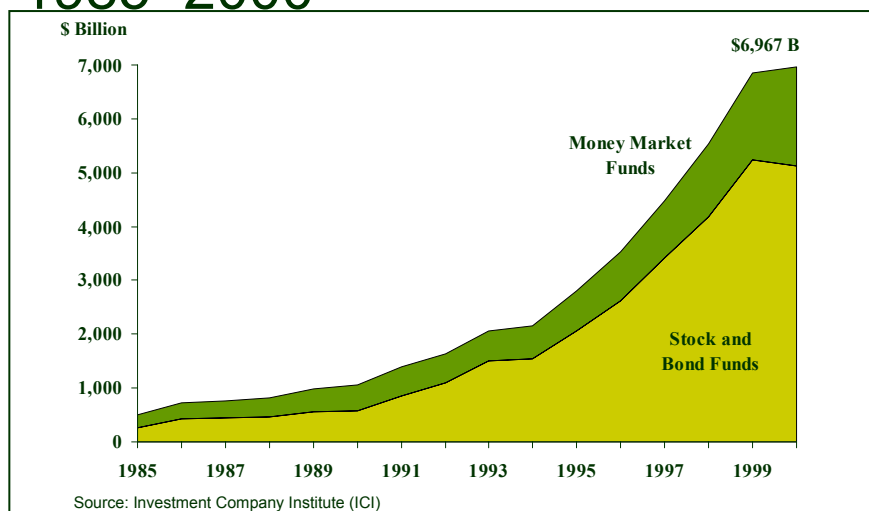
Popular Ways to Purchase Individual Securities

- On-line trading
- Separate account
 - Portfolio of individual securities managed separately by a bank, broker, or financial adviser
 - Account minimums lowered for consultant or rep wraps
 - Pre-packaged model portfolios
 - “Baskets” available through the internet

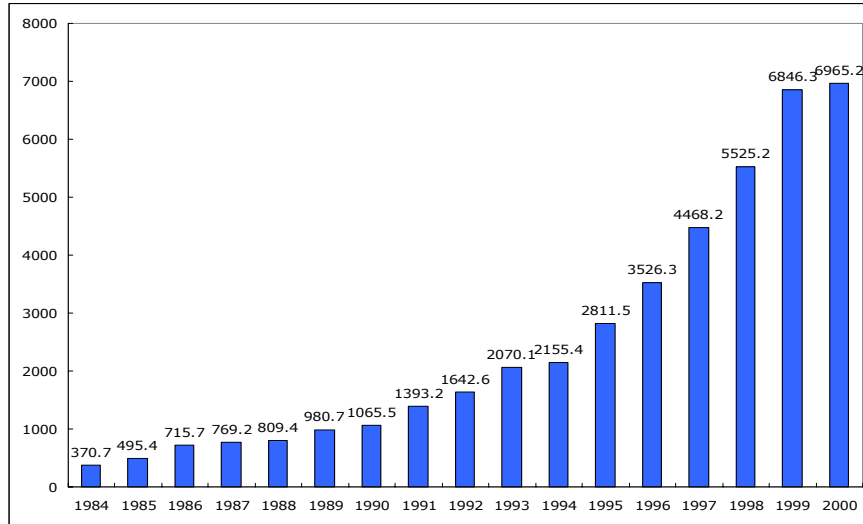
History of Mutual Funds

- The Foreign and Colonial Government Trust was formed in London in 1868. (closed-end fund)
- The Massachusetts Investor Trust was introduced in 1924. (open-end fund)

Assets of Mutual Funds 1985–2000

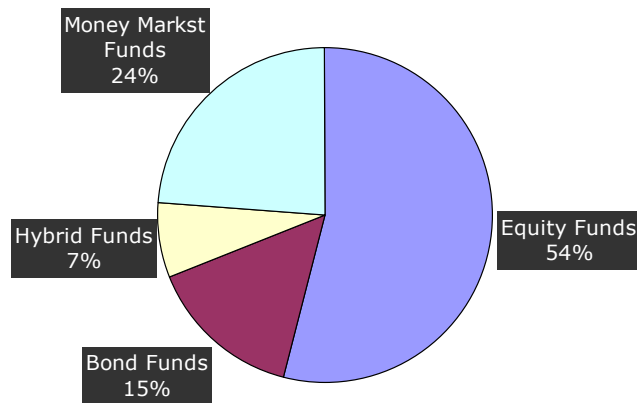


Mutual Fund Assets (U.S.)



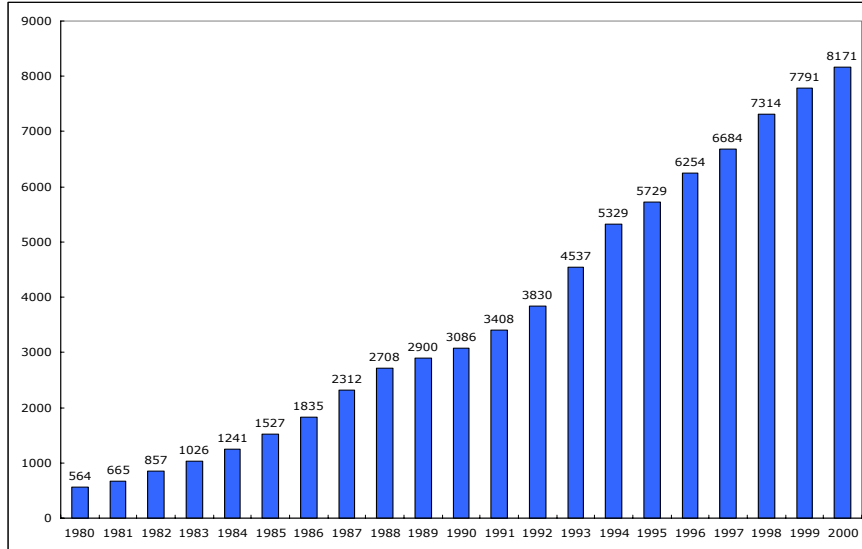
Source: Mutual Fund Fact Book, Investment Company Institute, May, 2001, p.29
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How Mutual Funds Assets are Invested



Source: Mutual Fund Fact Book, Investment Company Institute, 1999, p.11

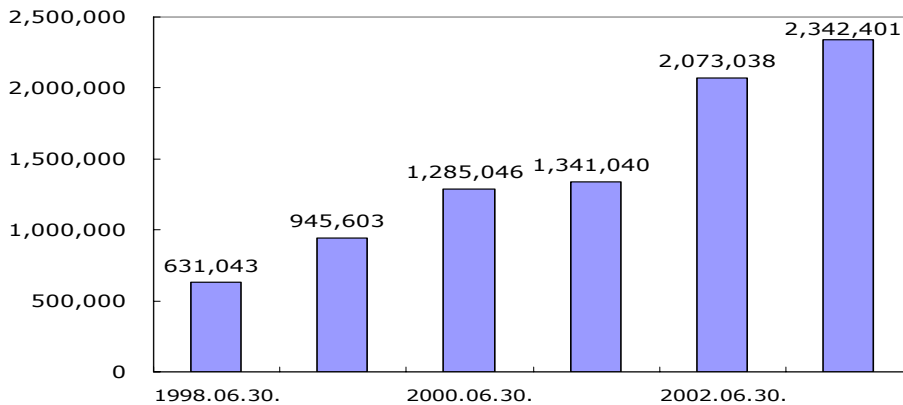
Number of Mutual Funds



Source: Mutual Fund Fact Book, Investment Company Institute, May, 2001, p.40
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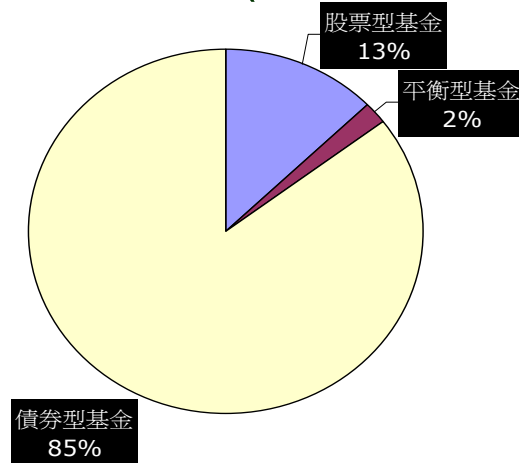
台灣共同基金規模 (至2003年6月底止)

單位：百萬元 (NT)



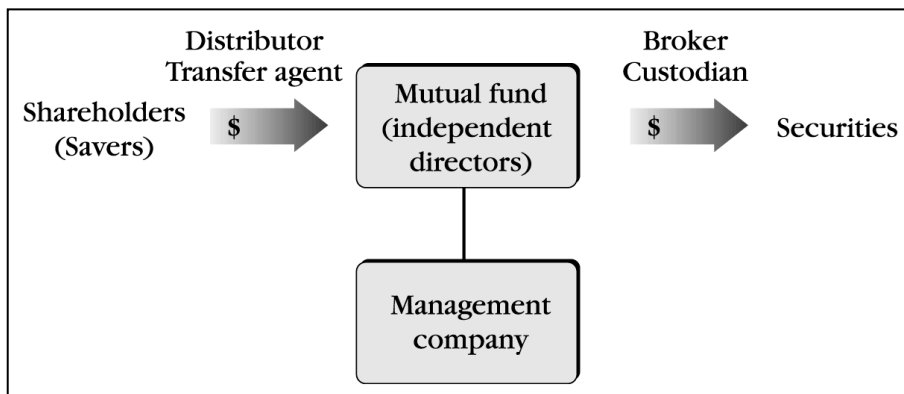
資料來源：投信投顧公會統計月報，2003年6月

台灣共同基金比重(至2003年6月底止)



資料來源：投信投顧公會統計月報，2003年6月

Structure of a Mutual Fund



Structure of a Mutual Fund (cont.)

- Director: prudent men rule
at least 40% independent director
- Shareholders: elect directors
approve material changes in the contract

Structure of a Mutual Fund (cont.)

- Investment Advisor: manage the fund's portfolio
- Administrator: may be the investment advisor or an unaffiliated third party provide accounting, shareholder, tax and SEC filing services.

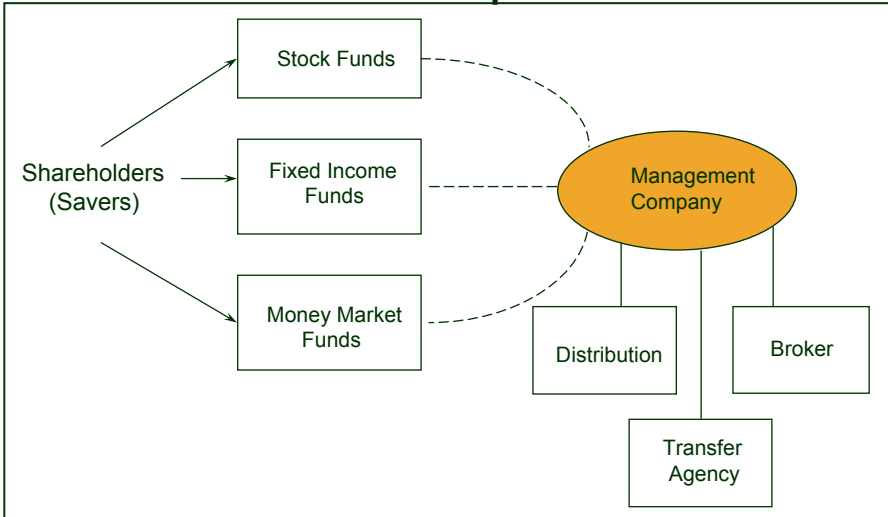
Structure of a Mutual Fund (cont.)

- Custodian: holds fund's assets, usually a bank.
- Transfer Agent: record keeping & mailing of shareholder activities

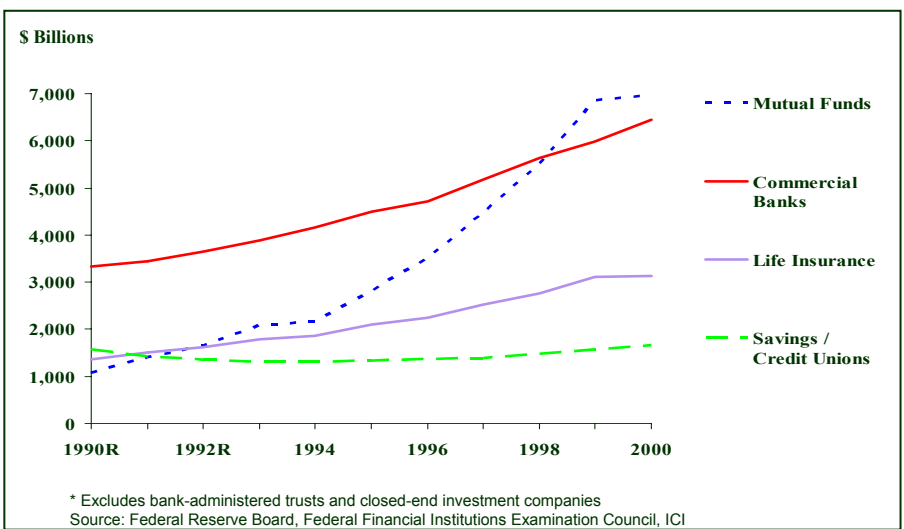
Mutual Fund Complex

- **Fund Complex**: array of mutual funds advised by the same management company (principle underwriter, transfer agent).
- A fund complex usually provides its shareholders with free transfers in the fund family and consolidated statements.

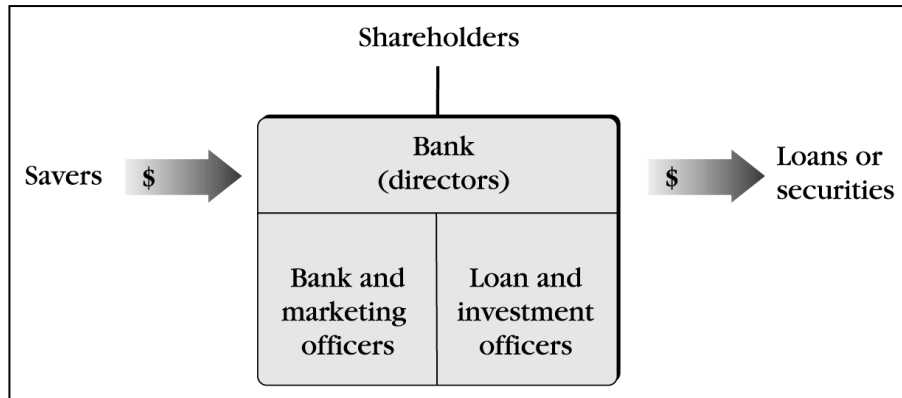
Mutual Fund Complex



Growth of Financial Intermediaries*



Structure of a Commercial Bank



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Case Study: Rules for Taxable Money Market Funds

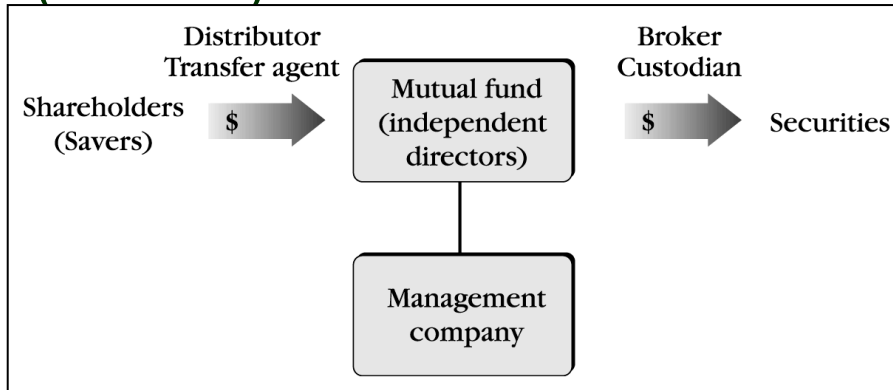
- At least 95% of assets in top rated paper
- No more than 5% of fund assets in one issuer besides U.S. Treasury
- Average maturity of fund 90 days or less
- Constant NAV of \$1.00 (versus fluctuating NAV)
- Accounting technique of rounding to nearest penny

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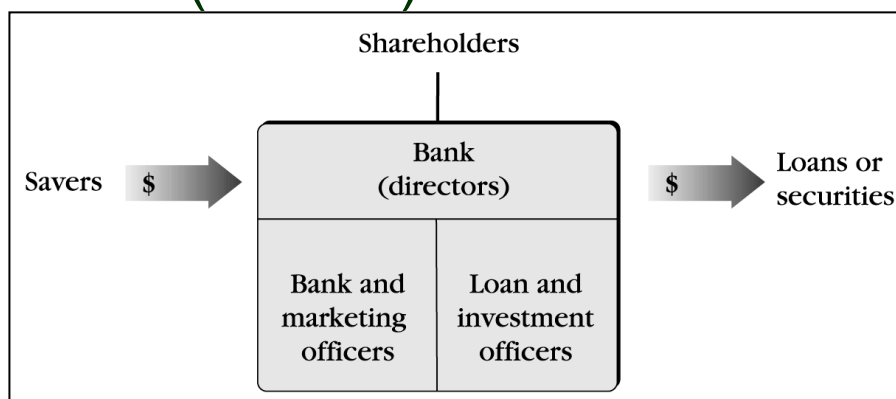
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Q1. Structure of a Mutual Fund (Review)



Q1. Structure of a Commercial Bank (Review)



Q2. MM Fund Versus Bank Deposit

| | <u>MM Fund</u> | <u>Bank Deposit</u> |
|-------------------|---|---|
| ■ Rate of Return | Tracks T-bill closely but usually higher because of credit risk | Does not track T-bill closely; longer maturity results in higher rate |
| ■ Time | Redemptions daily | MMDA: allows limited daily withdrawals CDs: penalty for early withdrawal |
| ■ Liquidity | Highly liquid | CDs: funds "locked-up" for fixed period |
| ■ Diversification | No more than 5% in any one issuer | Generally cannot loan more than 15% to one borrower |

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Q2. MM Fund Versus Bank Deposit (cont.)

| | <u>MM Fund</u> | <u>Bank Deposit</u> |
|-----------|---|--|
| ■ Risk | 95% must be in highest rated paper; average 90-day security maturity; no FDIC insurance | Loans subject to credit review; try to match asset maturity to liabilities; FDIC insurance (\$100K) |
| ■ Capital | Management company, not fund, has capital; no regulatory requirement or guarantee | Banks must have capital meeting meeting regulatory requirements; FDIC guarantees deposits (\$100K limit) |
| ■ Tax | May offer tax-exempt interest to shareholders | May <u>not</u> offer tax-exempt interest to depositors |
| ■ Fees | Fee income from management contract | Primarily spread income from principal risk |

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