INDEX FUNDS AND THE USE OF INDICES BY THE ASSET MANAGEMENT INDUSTRY

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1. In May 2002, the Technical Committee of IOSCO asked its Standing Committee on Investment Management (SC5) to study how the asset management industry uses indices, and in particular the growth of collective investment schemes that track a defined index. The Technical Committee is interested generally in regulatory issues concerning indexation. It has also asked its Standing Committee on the Regulation of Secondary Markets to update earlier papers written about derivative products based on stock indices and to address the potential systemic and other effects of indexation and rebalancing of indices.

2. Pursuant to its mandate, SC5 surveyed committee members on their experiences with index funds and for their views on the regulatory issues they believe are raised by the use of indices by the asset management industry. A summary of the responses to the survey is attached as Table 1 to this paper. The survey asked for information from members in three principal areas:

   i. The growth of index funds in their jurisdiction

   ii. The regulatory issues raised by index funds

   iii. The use of indices by collective investment schemes (other than index funds) and by other participants in the asset management industry.

   This paper explores the key themes arising out of the survey responses and outlines the importance and growth of index funds and indexation in the asset management industry. The main regulatory issues and impacts surrounding index funds and indexation generally are discussed.

3. For the purposes of this paper, the term "index fund" refers to those publicly offered collective investment schemes (CIS) that are sold to retail investors and that have a principal objective to track, replicate or correspond to an index on equities, debts or other securities, with an aim of providing or achieving investment results or returns that closely match or correspond to the performance of the index.[1]

Why index funds and indexation are important topics

4. Passive management and the use of indexation techniques by the asset management industry have grown in recent years. A CIS that replicates or follows proximately the performance of an index generally carries lower costs

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[1] The Hong Kong CIS regulators use this definition.

and closely offers the return that a certain market or markets are producing at a given time. Index funds may be attractive investment options for some investors. However, regulatory barriers may be preventing the continued growth of index funds. For example, legal restrictions aiming for risk spreading and diversification may prevent index funds from tracking their chosen index. On the other hand, index funds may create regulatory issues that are different from those raised by conventional collective investment schemes.

5. Passive management encompasses benchmark funds which follow some indices with a very tight tracking error. This technique may contribute to even greater uniformity in investors' behaviour and fuel a rising trend in volatility. This volatility issue may be also reinforced by the fact that some funds operate under severe liquidity constraints which may create an added incentive for such funds to shadow their benchmark as closely as possible, in particular in times of market turbulence.

Growth of index funds in SC5 member jurisdictions

6. All CIS SC5 regulators allow index funds to be sold in their jurisdictions. About one-third directly regulate index funds as a specialized category of CIS. In those jurisdictions that do not specifically regulate index funds, CIS regulators allow a CIS to describe its investment objective or strategy as tracking a specific index, subject, in most cases, to the fund following the general regime applicable to CIS. These CIS regulators usually require that the index fund include in its disclosure documents, specific information about the index fund's strategy.

   Table 1 to this paper indicates which CIS regulators define the type of CIS that may be called index funds and therefore directly regulate index funds and which CIS regulators treat index funds the same as other CIS. See the columns "Are index funds allowed?" and "Specific regulation of index funds?"

7. So-called "tracker" index funds are sold in all the jurisdictions of SC5 members. Tracker funds are those index funds that invest all or substantially all of their assets in the constituent securities of a chosen index in the same proportion that each security has in the index.

   Many SC5 member regulators also allow "sampler" index funds. Sampler funds include those index funds that invest in a representative sample of the constituent securities of an index using portfolio optimisation techniques to track the index. CIS regulators that do not today permit sampler funds are generally those that have only recently allowed index funds as a category of CIS.

   Some CIS regulators permit other strategies of index replication on a case-by-case basis, provided disclosure is given to investors about the special characteristics of the index fund. For example, some CIS regulators permit leveraged or geared index funds, which seek to track or replicate a specified multiple of the index value.

Table 1 to this paper indicates the types of index funds permitted in the various jurisdictions. See the sub-columns under “Are index funds allowed?”

8. Exchange traded funds (or ETFs) are publicly offered in most member jurisdictions. ETFs are specialized index funds that are listed on national stock exchanges. Unlike conventional CIS, ETFs issue shares that are only redeemable in large blocks and usually in specie.[2] ETFs raise different regulatory issues relating to their day-to-day operations and management of assets. Some jurisdictions have specialized regulation of ETFs that recognizes the differences between non-listed CIS and ETFs.

   Table 1 indicates those jurisdictions where ETFs are offered and which jurisdictions regulate ETFs under specific rules. See the column “Allow ETFs? Regulate ETFs?”

   Members of SC5 consider that ETFs raise specific issues that should be dealt separately from those related with conventional index funds.[3]

9. The index funds offered in most member jurisdictions use the cash or derivatives markets to achieve their investment objectives. The cash market is the predominant method for achieving index replication or sampling permitted by CIS regulators. Some CIS regulators do not allow the use of derivatives for these purposes.

   Where index funds are permitted to use derivative instruments to achieve their objectives, general CIS restrictions apply to ensure that an index fund, as with other CIS, either does not put more than its assets at stake or that the fund’s exposure to the underlying assets of the index is not larger than the fund’s total assets. These CIS regulators restrict the amount of leveraging in which a CIS may engage.

10. Index funds are a relatively new form of CIS in most of the members’ jurisdictions. The first index funds were established in Japan in the late 1960s and the U.S. fund company, Vanguard, introduced the first index fund in the United States in 1976. This fund, known today as Vanguard ® 500 Index Fund, is presently one of the largest funds in the United States with assets under administration of approximately U.S. $63.889 billion (as of August 2002). Index funds were also authorized in the Netherlands beginning in 1987. In most of the other member jurisdictions, index funds are relatively

[2] Instead of cash, on redemption, an investor receives a basket of securities corresponding to the portfolio of the ETF. Similarly, to purchase newly issued securities directly from the ETF (rather than purchasing traded previously issued securities), an investor would pay for such securities with securities.

[3] Issues considered include: the percentage of assets that must be invested in securities of the specified index; how units of the ETF can be purchased and redeemed directly from the ETF, if not traded on the exchange (generally *in specie* using blocks of securities making up the specified index in the applicable proportions and weighting); disclosure of intraday NAV estimates and of the NAV calculation methodology; portfolio rebalancing methods; proxy voting of portfolio securities; securities lending of the portfolio.

new phenomena with most member jurisdictions reporting significant growth in this type of CIS from the mid-to-late 1990s.

All SC5 members report smaller numbers of index funds, relative to other types of CIS. Index funds' relative importance to other CIS ranges from a minimum of 0.3 percent of total CIS assets under management to a maximum of 7.0 percent.

In the jurisdictions of most members, the assets under management in index funds as compared to the total market capitalization in a jurisdiction do not exceed 1 percent.[4]

Table 1 illustrates the numbers of index funds and the years the first index funds were established in each member jurisdiction under the columns "Data on index funds" and "Date of first index fund."

Main regulatory concerns with index funds

11. SC5 members were asked five questions to determine the range of regulatory approaches that CIS regulators use to address the investor protection issues that the regulators consider are raised by index funds and indexation generally.[5]

    i. What kind of CIS can hold itself out as an index fund?

       Among other things, CIS regulators are concerned that investors will be misled, if a CIS holds itself out as an index fund when effectively its level of tracking error does not allow it to provide investors a level of return that fairly tracks or relates to the specified benchmark. CIS regulators also wish to ensure that investors are given information to help them understand the differences between other CIS and index funds.

    ii. Should restrictions apply to the type of index that can be used by an index fund? If so, what are those restrictions?

       CIS regulators are concerned about the potential for abuse caused by conflicts of interests resulting from the use of indices promoted by parties related to the CIS operator. CIS regulators are also concerned with transparency, including adequate disclosure regarding the index methodology employed by the CIS and the risks posed by index funds tracking highly concentrated indices.

    iii. Should index funds be subject to any investment restrictions and practices? What should CIS regulators do when CIS investment

[4] The importance of portfolio indexation or benchmark management in the asset management industry generally, other than for index funds, is difficult to quantify but likely to be much greater than these figures: see the discussion at paragraphs 22 and 23 below.

[5] Not all jurisdictions have been faced with the issues noted or consider them of equal importance.

restrictions and practices limit the ability of an index fund to track its target index?

Investment restrictions generally applicable to CIS include those that are intended to ensure a minimum level of diversification. CIS regulators have considered whether the index fund itself should continue to be subject to minimum levels of diversification, which could lead to an index fund not being permitted to track its specified index in circumstances where the index becomes concentrated. CIS regulators have also considered whether index funds should only be permitted to track indices that have an appropriate level of diversification.

iv. Should CIS regulators regulate the fees charged to index funds?

Regulators consider the fees charged to index funds, principally to ensure adequate disclosure of costs to investors. CIS regulators may also be sceptical if index funds pay fees for their operation and management that are higher than those paid by actively managed CIS.

v. What should index funds tell their investors - at point of sale and continuously thereafter? - when a material change occurs?

Disclosure is important, since material changes may occur in the weight of the benchmark constituents - possibly causing an increase in risk. This should be adequately disclosed to investors in a timely fashion. Furthermore, the issue of disclosing costs and other factors contributing to a potential for tracking error should be considered in order to make investors aware of significant deviations in the CIS performance.

CIS regulators have also considered whether there a risk that index funds distort markets. Some commentators have expressed concern that indexation and index funds, in particular, may have a "herd effect" on the markets, generally, and volatility patterns for the markets or individual securities.[6] Nevertheless, according to a report of a working Group on Incentive Structures in Institutional Asset Management set up upon the aegis of the Committee on the Global Financial System (CGFS[7]), the increasing use of core market indices, along with the recent tendency to impose somewhat tighten limits on tracking errors, might have led to convergence in investor behaviour. To avoid falling behind the benchmark (which tend to be chosen from a limited number of established market indices), managers may have then incentives to herd, i.e. to close an existing or refrain from establishing a new arbitrage position, to avoid the reputation risk of acting differently from their peers. This factor may induce higher volatility. But at the same time, the report noticed that other developments may suggest the existence of

[6] Although SC5 members are not aware of any academic studies that have documented a "herd effect" associated with index funds.
[7] For a summary of this report, see BIS Quarterly review, September 2003, pp.75-86 *"Institutional asset managers: industry trends, incentives and implications for market efficiency.*"

counterbalancing effects. Reduced reliance on peer-based benchmarks, increased number of asset class choices, the shift of responsibilities for strategic asset allocation towards the owners of the funds partially offset copy-cat behaviours described above due to the use of core market indices and tightening of allowable tracking error. It is also uncertain whether or to what extent changes to the incentives structure of institutional asset managers have affected to counter asset pricing errors. However, in spite of these relevant points, we do not deal with this issue in this paper. Standing Committee 2 canvasses this matter in their update paper.

Holding out as an index fund

12. As noted above, SC5 CIS regulators have two broad approaches to regulating index funds in their jurisdictions. One-third regulate index funds as a specialized type of CIS and in so doing, create a regulatory scheme that addresses what those regulators view as important issues raised by index funds. Many of those CIS regulators prescribe the nature of a CIS that can be called an index fund. The other CIS regulators permit a CIS to track an index as its investment strategy, but impose no additional or different regulation than that applicable to other CIS. In some cases, those regulators grant relief from their general CIS regulatory scheme to permit index funds to follow their investment strategies.

    Most SC5 regulators would consider a CIS to be misleading investors if it called itself an index fund, for example, if it used the word "index" or referred to a specific index in its name, but did not primarily invest in the constituent elements of the specified index using replication or sampling techniques.

    Some CIS regulators are concerned that investors in index funds not be misled to think that index funds are "safer" investments than actively managed CIS. This investor perception may not be justified and can be dealt with through disclosure and investor education initiatives.

13. A minority of SC5 CIS regulators regulate how an index fund must disclose tracking errors in their jurisdictions. These regulators require index funds to meet mathematical measures, such as a minimum correlation between the index fund's returns and the returns of the fund's chosen index. For example, the Mexican CIS regulators allow a maximum monthly permissible tracking error (standard deviation) of 7.5 percent.

    Brazil requires an ETF to call a general unitholders' meeting if it experiences a tracking error that is outside the limits for tracking errors established by the regulator. Unitholders have the right to terminate the manager or the fund in such circumstances. Brazil regulates ETFs under a specific regime and regulates non-listed index funds in the same way as it regulates other CIS.

    Other CIS regulators have chosen not to specifically establish guidelines for permissible tracking errors. However, some of these CIS regulators would view a material tracking error to mean that the so-called index fund was not meeting its objectives and would take regulatory action.

In some jurisdictions, such as in the United States, index funds commonly disclose to investors a comparison of their performance from the performance of their chosen index and represent that they expect their annual tracking errors will be less than a specified percentage. In addition, the Hong Kong CIS regulators require continuing disclosure in annual and semi annual financial reports of the extent of tracking errors experienced by index funds.

CIS regulators note that investors need to understand that no index fund will exactly match the performance of an index; hence the importance of disclosure of the potential for tracking errors and of the fund's actual experience.

Acceptable indices

14. Those CIS regulators who administer a specific scheme for index funds regulate what types of indices can be used by index funds. These regulators commonly prescribe that an acceptable index is one that is:

    - Widely recognised and accepted;[8]

    - Widely disseminated with public information available about its composition and methodology and rules; and

    - Sufficiently diversified.

    Four of these CIS regulators address the potential conflicts of interest regarding the use of an index that is created and maintained by parties related to the index fund or that is created specially for the index fund. For example, the French *Commission des Opérations de Bourse* (COB) specifies that an acceptable index would only be one that is established and published independently from the various parties related to the index fund. The CIS regulators in Canada prohibit the use of tailor made indices, but allow indices maintained by related parties, so long as they are widely recognized and used.

15. No regulator maintains a list of acceptable indices for index funds. In addition, no CIS regulator directly regulates indices, for example, to impose rules that avoid excessive concentration of any one constituent security. Generally, the exchanges or sponsors of the indices maintain and set rules for the indices.

16. Most CIS regulators impose requirements for index funds to describe their specified indices in CIS disclosure documents. Most CIS regulators do not otherwise require public disclosure of the content and rules of the indices. However, in the jurisdictions of most members, the media and the index sponsors themselves make this information available.

[8] Recent or newly established indices may be considered widely recognised and accepted, if they are managed by index sponsors with a high degree of experience in calculating and promoting indices.

Applicable investment restrictions and practices

17. All CIS regulators require an index fund to actually invest in or replicate the specified index. As noted above, many CIS regulators would consider an index fund to be misleading and not following its strategy if it did not invest a substantial portion (if not all) of its assets in at least a representative sampling of securities constituting the chosen index.

18. Many CIS regulators also recognize that index funds may need relief from the investment restrictions and practices generally applicable to CIS in their jurisdiction so that they can properly track their index. For example, European Undertakings for Collective Investment in Transferable Securities (UCITS) funds are granted exemptions from the concentration rules (limiting investment by a CIS in any one issuer) either to remove index funds from the ambit of these rules or to increase the limits within which an index fund can invest. Other CIS regulators provide this relief where appropriate on a case-by-case basis.

    Concentration rules limiting a CIS from investing more than a specified percentage (for example, 10 percent) of its assets in any one issuer came under pressure in the context of index funds during the overheated stock markets of the late 1990s. For example, in Canada and Sweden, one company dominated the primary stock exchange indices in those jurisdictions. Without relief, many index funds set up to track these indices were unable to meet their investment objectives. The Canadian regulators chose to exempt index funds from this concentration rule entirely. In Europe, the rules for UCITs index funds were changed to allow these funds to invest more of their assets in securities of a single issuer, but continued to impose a limit on these investments.

    However, other CIS regulators take the position that index funds should be subject to the same rules as other CIS and grant no special relief for index funds from the investment rules.

Index fund fees

19. No CIS regulator specifically regulates the fees payable by index funds, although the CIS regulators in Mexico and Spain limit fees that can be charged to all CIS, not just to index funds. All CIS regulators require disclosure about fees (just as they do for other CIS). Several SC5 members said they maintain discretion to refuse to allow an index fund that charged excessive fees. For example, the Swiss and Portuguese CIS regulators would question an index fund that proposed to pay fees that were higher than the average for actively managed equity funds.

Index fund disclosure

20. All SC5 CIS regulators require an index fund to describe that its investment objective or strategy is to track a specified index. Those jurisdictions that

regulate index funds as specialized CIS generally require specific disclosure that is tailored to index funds. For example, Hong Kong's regulation of index funds requires specific warnings and disclosure for prospectuses of index funds. Those jurisdictions that regulate index funds in the same way as other CIS report that an index fund is required to provide specific disclosure about the index fund's method of tracking an index and to describe its chosen index.

Most jurisdictions would require public information to be made available if an index fund changed its index, either because the index is no longer available or because it wishes to track another index. In some jurisdictions, such as Canada, France and Japan, the CIS regulators would consider that a change in the index would be a fundamental change to the fund. In Canada, fundamental changes cannot occur to a fund without unitholder approval. In France and Japan unitholders must receive notice of the change and be permitted to redeem without charge. In Portugal, an index fund is given a six month window to adapt its investment objective and may chose to become a non-index fund. Unitholders are permitted to redeem without charge if such an event occurs.

No jurisdiction requires special disclosure about changes in the composition of an index being tracked by an index fund. The usual CIS requirements for annual and semi-annual disclosure of portfolio holdings generally apply.

Regulation of ETFs

21. Some CIS regulators have developed a special regulatory scheme for ETFs. For example, the CIS regulators in Brazil adopted rules for ETFs in January 2002. In November 2001, the U.S. SEC published a concept paper on actively managed ETFs and how the investment vehicles should be regulated.

Other regulatory issues raised by index funds, including ETFs

22. Other regulatory issues raised by index funds include:

- Consumers' perception of index funds as "safe" investments (that is, with minimal risk);
- The ability of CIS operators to explain, and investors to understand, issues relating to tracking error;
- Closet-index funds, i.e., "actively managed" funds that carry high management costs but that in fact are passively managed, raise issues of disclosure in general and misleading information;
- Misleading comparisons between index funds and the chosen benchmark;
- Circumstances under which the benchmarks can be replaced and impact on investors;

- Enhanced index funds.[9]

Use of indices by CIS and the asset management industry (generally)

23. In the jurisdictions of most SC5 members, indices are widely used as a benchmark to measure performance of actively managed funds. In some jurisdictions, indices are also used as benchmarks to allow CIS to calculate fees based on the performance of a CIS operator.

    Some SC5 members comment that many CIS held out as actively managed funds in their jurisdiction are effectively "closet" index funds, since their fund managers generally track their fund's performance against a chosen index. Fund managers may wish to control their business risk by not straying too far from the indices against which they are measured. The significance of closet indexing is felt to be an increasingly important issue, since it means that the importance of indices to the CIS industry is much greater than the statistics about index funds would suggest. In addition, closet indexers raise questions about disclosure and the level of fees charged—investors may be paying fees consistent with active management of equities, when in reality the CIS operator is investing on a more passive basis.

24. In many of the jurisdictions of SC5 members, other investment products managed by money managers also use indices for tracking purposes or for illustrating the performance of the money manager. Most of these products are not regulated under the same schemes as CIS and are not regulated by many CIS regulator members of SC5. Investment products mentioned by SC5 members include:

    - Bank products (including pooled funds, bank certificates, commercial paper) that track various indices, either directly, or through derivative instruments;

    - Insurance products (including pooled funds) that track indices, while guaranteeing a minimum value on a specified maturity date of the policyholder's policy;

    - Futures contracts that track indices; and

    - Options on stock indices, options on stock index futures, and equity and interest rate swaps (which can track index returns).

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[9] Enhanced index funds can be "enhanced" through the use of leverage, including derivatives, or "enhanced" through the fund manager straying from replicating a chosen index by tilting toward or weighting a particular sector or style that the manager views positively, hence involving a combination of passive and active management. Enhanced index funds tend to have higher portfolio turnover, greater short-term capital gains, and higher fees than traditionally more passive index funds. These funds may raise disclosure issues that are different from those raised by traditional index funds.

Conclusions to be drawn

25. CIS regulators have considered the range of investor protection issues arising from the growth of regulated index funds in their jurisdiction but without considering other unregulated schemes such as hedge funds. SC5 members conclude that most, if not all of these issues are being adequately dealt with through the techniques we discuss in this paper and that investors in index funds are not subject to any greater risk than other CIS investors.

    In this context, we do not draw any conclusions about the effect on markets caused by the use of indices by the asset management industry, including index funds. We note additionally that if recent studies underline that tightening of allowable tracking error and the increasing use of established market indices and more globally the general shift from active asset management to passive asset management may increase the potential for market misalignments, the impacts of these factors on price formation are difficult to quantify and moreover can be off-set by other factors.

TABLE 1

Jurisdiction	Are index funds allowed?			(i) Allow ETFs? ETFs? (ii) Regulate ETFs? ETFs?	Data on index funds		Date of first index fund (IF)	Specific regulation on index funds?	Criteria for acceptable indexes?	Tailor made indexes?	indexes of related parties?	Regulate maximum tracking error?	Investment restrictions for index funds? (3)	Regulation of fees charged by index funds?	Special disclosure requirements			Potential for distorting markets?
	T	*S*	*O*		*N.º*	*% total CIS*									*P*	*AR*	*PA*	
Australia	Y	Y	Y	Y - N	111	3.2	1999	N	N	Y	n.a	N	N	N	N	N	N	N
Brazil	Y	Y	Y	Y – Y	53	4.3(1)	2002	N	N(2)	N	N	Y	Y	N	Y	N	N	n.a.
Canada	Y	Y	N	Y – N	110	3.5	1989, 1st ETF;1998, other IF	Y	Y	N	N	N	Y	N	Y	N	N	n.a.
France	Y	Y	Y	Y – N	33	n.a.	?	Y	Y	N	N	N	Y	N	N	N	N	Y
Germany	Y	N	N	Y - Y	170	7.0	1998	Y	Y	N	N	Y	Y	N	Y	N	N	N
Hong Kong	Y	Y	N	Y – Y	38	1.8	1995	Y	Y	Y	Y	N	Y	N	Y	Y	N	N
Ireland	Y	Y	Y	Y - Y	104	n.a.	1998	N	Y	Y	Y	N	Y	N	N	N	N	N
Italy	Y	Y	Y	Y - Y	9	n.a.	2002 (1st ETF)	Y	Y	N	N	N	Y	N	N	N	N	N
Japan	Y	Y	Y	Y - ?	274	n.a.	1968	N	N	Y	Y	N	?	N	N	N	N	Y
Jersey																		
Luxembourg	Y	Y	Y	Y – N	624	5.0	1990	N	N	Y	Y	N	N	N	N	N	N	N
Mexico	Y	N	N	N – N	18	5.0	1998	Y	Y	N	N	Y	N	N	N	N	N	N
Netherlands	Y	Y	Y	Y – N	65	0.7	1987	N	N	Y	Y	N	N	N	N	N	N	N
Portugal	Y	N	N	N – N	21(4)	2.3	-	Y	Y	N	N	Y	Y	N	Y	N	Y	N
Spain	Y	N	N	N – N	32	0.3	2001	Y	Y	Y	Y	N	Y	N	Y	n.a.	Y	N
Sweden	Y	?	?	N – N	20	?	?	N	N	n.a	n.a	n.a	Y	N	N	N	N	N
Switzerland	Y	Y	N	Y – N	17	n.a.	1989	Y	N	Y	Y	Y	N	N	Y	Y	N	N
United Kingdom	Y	Y	Y	Y – N	n.a.	n.a.	Late 90's	N	N	Y	Y	N	N	N	Y	n.a.	N	N
United States	Y	Y	Y	Y – Y	328	6.3	1976	N	N	Y	Y	N	Y	N	N	N	N	N

T – Trackers
S – Samplers
O - Others
P – Prospectus
AR – Annual Report
PA - Performance Advertising
(1) As a percentage of total equity funds.
(2) Only for non-retail funds.

(3) N = No change. The CIS regulator applies its regular investment rules, if any, to all CIS (note that ASIC does not regulate investment restrictions at all for any CIS)
Y = Special rules or relief. The CIS regulator gives relief (either in its rules or on a case-by-case basis) from its regular investment rules that apply to all CIS (either from the concentration restrictions or related party prohibitions). All UCITs funds have special "index fund" based relief – however, only those jurisdictions that create special relief for index funds (non UCITs) funds are noted in this table as S.

(4) "Closet" index funds, not registered under "index fund" regulation.

Regulation of ETFs refers to specialized rules adapted to ETFs. If a CIS regulator uses its general rules applicable to CIS to regulate ETFs, a N is indicated.