# Journal of Indexes Europe

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## shifting regulations

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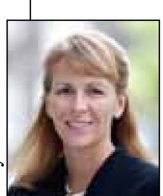
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# Welcome to the new European edition of the Journal of Indexes!

When my publisher, Jim Wiandt, and Index Publications' head of editorial, Matt Hougan, first asked me to take on the role of editing this new magazine, I was excited and honoured.

For me, the US Journal of Indexes (JoI) has always been the repository of the best research and debate on the index industry. If you want to research the pros and cons of fundamental indexation, understand why indexing bonds presents so many challenges, or look at different ways of segmenting the equity market—to give three random examples—back issues of JoI will have all the content you need to form a balanced opinion.

In our new publication we aim to build on this excellent heritage and to provide to European readers the very best research from across the local indexing and exchange-traded product industry.

We'll cover cutting-edge index development from Europe's benchmark providers, which passive investment products are attracting local investors' money, and Europe as an investment destination. We'll examine European exchanges and trading platforms and how index investing actually works in practice across an often complex region.

Consider this inaugural issue: although we're now over two years into recovery from the depths of the financial crisis, regulators worldwide are still dealing with the aftermath of the 2008/09 credit crunch. Almost every area of the financial market now faces new rules, which in turn may mean changes in business models and a rethink of the way in which indexed investment products are built and then offered to investors. Meanwhile, taxes are on the rise as governments face large budget deficits.

"Changing regulations, shifting taxes" is therefore our central theme for this issue.

Elaine Keane, associate at law firm Maples and Calder, provides an excellent overview of the evolving regulatory landscape in our introductory article. Following her paper, five legal and tax experts from both sides of the Atlantic—Simon Gleeson, Matt Tombs, George Simon, John McGuire and Francine Rosenberger—give their opinions on the same topic in our roundtable discussion. It's an engaging read and the interviewees' comments leave plenty of food for thought.

I've contributed an article on what I believe is still a relatively little-covered area and one that concerns the majority of global equity trackers—the effect of withholding taxes on index returns. Mark Cerimele and Shawn Travis, investment product and tax experts from Vanguard, and Kerry White, managing director at BNY Mellon, respond in a joint article, explaining the efforts being undertaken to improve the tax efficiency of certain passive investment funds.

Danièle Tohmé-Adet of BNP Paribas analyses whether all mutual funds could eventually end up as exchange-traded funds, and what this implies for the investment industry. Finally, Deborah Fuhr of BlackRock gives a broad overview of the rapidly changing ETF market, highlighting some of the key regulatory and tax developments.

In forthcoming, bimonthly issues, we'll be looking at the index industry in Europe in detail, examining how best to index inflation and devoting a whole edition of the Journal to the topic of risk.

Please sign up at www.indexuniverse.eu/joi if you'd like to receive JoI Europe for free in an electronic version. That offer is open to all, while print copies are also available for free to institutional investors. See page 6 for details on how to sign up.

PA Amery

**Paul Amery**
**Editor**

# Key Regulatory Issues For Europe's ETF Market

The impact on index trackers of a rapidly changing legal framework

By Elaine Keane

The growing popularity of the exchange traded fund ("**ETF**") has been well documented, with asset managers and investment banks capitalising on the inherent advantages presented by ETFs when compared with traditional mutual funds. These advantages are broadly accepted as lower costs, improved transparency and increased liquidity and diversification. The obvious benefits associated with ETFs have been directly reflected by the net inflows into ETFs, while other types of funds, particularly traditional mutual funds, have seen large-scale outflows.

European ETFs may be established as UCITS (that is, compliant with the European Union Directives entitled "Undertakings for Collective Investment in Transferable Securities") or non-UCITS. However, the general preference is to establish ETFs as UCITS funds on the basis that they can then be "passported" into any EU jurisdiction, for sale to retail and institutional investors alike. Thus the key regulatory factor which impacts on a European ETF is compliance with the UCITS rules and other ESMA (European Securities and Markets Authority) guidelines.

ETFs established in Europe under the UCITS banner may be structured in a number of different ways but all methodologies fall within two different models, which in simple terms can be explained as follows: (i) the physical replication model, whereby the ETF invests directly in the stocks underlying a financial index; and (ii) the synthetic replication model, whereby the ETF invests in an over-the-counter ("OTC") derivative contract, which in turn delivers the performance of the financial index. While the physical replication model has some supporters and is the traditional way of building an ETF, the more popular route for ETF providers is now the synthetic replication model.

Understanding and effectively implementing the diversification requirements applicable to financial indices under the UCITS rules is one of the principal challenges faced by those providers wishing to establish an ETF. The rules are that the weightings of the components of the relevant index must meet with the provisions of Article 22 and Article 22a of the UCITS Directive which, to paraphrase, state that each instrument which is a component of the index may only represent greater than 5% of the index if (a) the sum of weights of investment in such components is <u>less</u> than 40% of the index; and (b) the weight of any individual component is less than or equal to 10% of the index. This diversification requirement is commonly referred to as the "5/10/40 rule". For index funds (including ETFs), member states may raise these limits to 20% of the index for each component, with a maximum of 35% of the index for a single component where it proves to be justified by exceptional market conditions in regulated markets where the instrument is highly dominant. By way of example, the STOXX Europe 600 Optimised Food & Beverage Index, SMI, STOXX Europe 600 Optimised Automobiles and Parts Index, MSCI Mexico Index, Russian Depository Index and the STOXX Europe 600 Chemicals Index all utilise the extended 35% limit on the basis that Nestlé, Volkswagen, America Movil, Gazprom, and Bayer, respectively, are dominant in the markets the relevant indices seek to represent.

## The Impact Of UCITS IV

As previously mentioned, ETFs established within the European Union are generally regulated under the UCITS regime. The implementation of UCITS IV in 2011 will not bring with it any fundamental change to the way in which European ETFs operate. UCITS IV does not expand or indeed limit the types of potential ETFs which may be launched and so the product should be able to continue its organic development within the confines of the UCITS legislative ambit.

UCITS IV may, however, lead to some cost savings for ETF providers as a result of the concept of the "UCITS passport" and due to the improved regulatory notification procedure for European cross-border distribution.

The UCITS passport facilitates the cross-border marketing and distribution of a UCITS in other host member states following appropriate notification to the respective competent authorities. The notification procedure which currently exists under UCITS III is fraught with difficulty, particularly as the competent authorities of the host member state have the right to impose additional requirements on the foreign UCITS, over and above those laid down in the UCITS III directive itself, which effectively creates a second authorisation procedure, resulting in delays and additional costs.

**The UCITS passport facilitates the cross-border marketing and distribution of a UCITS in other host member states following appropriate notification to the respective competent authorities.**

Under UCITS IV, the control of the host member states' competent authorities is removed and is replaced with a "regulator-to-regulator" system. Under this system, the ETF must notify its home member state's competent authorities of its intention to be distributed in another member state. The home member state's competent authorities will then transmit the notification letter and accompanying documentation to the competent authorities in the host member state no later than ten working days following the date of receipt of the notification. The competent authorities of the host member state are then obliged to notify the ETF immediately, at which point the marketing of the ETF in the host member state can begin. Where relevant, the Key Investor Information Document ("KIID") is the only document required to be translated (at the choice of the ETF), either into a language approved by the competent authorities of the host member state or into a language customary in the sphere of international finance.

This streamlined process should greatly improve the efficiencies involved with the registration process on the basis of the reduced notification period (the current norm is a two month waiting period prior to the commencement of marketing in the host member state) and fewer translation requirements and should result in lower costs. As a word of caution, however, the ETF will still be subject to those laws of the host member state that are applicable to marketing arrangements, and therefore to ongoing supervision by the competent authorities in the host member state. Furthermore, UCITS IV has not harmonised the procedures of the stock exchanges in each member state; and so, while the registration process will be streamlined in terms of the member state competent authorities, local stock exchanges will still be free to impose their own additional requirements and any updates or amendments to the UCITS documentation will continue to be handled under the current process whereby each stock exchange is free to implement its own requirements.

### Regulatory Developments

The impact of regulatory changes such as UCITS IV, the second version of the Markets in Financial Instruments Directive (MiFID II), the UK's Retail Distribution Review (RDR) and the Alternative Investment Fund Managers Directive (AIFMD) remains an area of considerable uncertainty for those involved in managing and distributing investment funds. Many regulators around the world are considering the implementation of, *inter alia*, rules regarding short selling, the use of derivatives, commodity futures and the transparency of fees and performance. As many of these documents are in the consultation phase the specific guidelines for implementation have not yet been defined.

While implementation of MiFID II is still over a year away, the European Securities and Markets Authority (ESMA), (which replaced the Committee of European Securities Regulators, CESR, in January 2011) has recommended the reporting of ETF trades on the basis that it would be of benefit to the investor and to the market at large if all trades in ETFs (like trades in stocks) were disclosed. This has relevance for the large number of synthetic replication ETF products which use OTC derivatives to deliver their return. Currently, there is little reliable information on what goes on in the OTC derivatives market, such that information on prices, participants, the time of trades, the underlying assets and the amounts involved are not publicly available. When one considers that 90% of all derivatives are traded OTC, the gap in publicly available information in respect of this sector of the global financial market is vast.

It is argued that the reporting of ETF trades would improve transparency and would enable the efficient gathering of data in order to estimate the real growth within the market and would allow institutional investors to see the daily volumes traded across multiple exchanges and off-exchange, which would in turn evidence whether the investor in the ETF received a good price for their units. There has been a degree of resistance to this potential development from some key ETF providers on the basis that some banks can make a wider bid-offer spread when ETFs are traded over the counter, thereby increasing trading profits of the ETF provider, however the further narrowing of the bid-offer spread would ultimately be of benefit to investors.

**ESMA will seek to work with market participants to put this "consolidated tape" in place. This suggestion would help to reduce the current fragmentation of liquidity across trading venues in Europe.**

ESMA has also recommended the consolidation of post-trade data across Europe, on the basis of which investors would be able to assess the quality of their trade execution. ESMA does not believe that any system currently exists which ensures a reasonable price or is useful for the vast majority of market participants. ESMA will seek to work with market participants to put this "consolidated tape" in place. This suggestion would help to reduce the current fragmentation of liquidity across trading venues in Europe. It is intended that regulators in the EU will have access to these repositories of trade information, which would provide them with a clear overview of who owes what to whom and would allow them detect any problems such as an accumulation of risk.

The European Commission has also made steps to make the derivatives market in Europe safer and more transparent through proposing a regulation aimed at bringing safety and transparency to the over the counter (OTC) derivatives market. The European Commission has additionally proposed that standardised OTC derivative contracts (i.e., those which meet pre-defined eligibility criteria, such as a high level of liquidity) be cleared through central counterparties. The central counterparties shall interpose themselves between the two counterparties to the OTC transaction and since an OTC derivative contract cleared by a central counterparty usually involves the posting of higher levels of collateral than an equivalent OTC derivative contract which is not cleared by a central counterparty, this change will increase the amount of collateral held within the system and will mitigate counterparty credit risk, seeking to prevent the situation where the collapse of one market counterparty could cause a contagion effect amongst other market counterparties, thereby putting the entire financial system at risk.

While the implementation of trade reporting and central clearing of OTC derivative contracts will be of benefit to the market at large, it will undoubtedly increase the costs associated with the structuring of those ETFs that are backed by derivatives. One of the benefits and attractions of an ETF to investors is its low-cost profile. However, the use of a central clearing system, the management of trade reporting and the access to trade data need to be paid for. The reality is that investors in ETFs which currently utilise OTC derivatives to deliver performance will ultimately pay the costs of compliance.

The US ETF market is also undergoing a period of change, with the US Securities and Exchange Commission's (**SEC**) ongoing review of funds' use of derivatives, including the rules for US-based managers' use of swaps when gaining short exposure. A key concern in the US is accurate disclosure regarding the utilisation of derivatives for retail investors. Several legal actions have been commenced in the US where investors have claimed that the creators of leveraged and inverse ETFs failed to provide disclosure on the way in which the derivatives where used and how their use could compound losses.

## Tax Inefficiencies

The tax treatment of dividends in ETFs remains inefficient for many European investors. The key point is that claiming double taxation treaty benefits can be a difficult task. With regard to the treaty claim process in an ETF context, the primary issue is whether the ETF is entitled to claim the benefit of a treaty. The conclusions reached in each jurisdiction can differ and the analysis may depend on the legal form of the ETF and whether the ETF itself pays tax. Some jurisdictions take the view that the ETF acts as a "pass-through" entity such that the treaty benefits are determined at the unit-holder/investor level. If this is the case, access to treaty benefits is dependent on the completion of forms and certificates of tax residency by the end-investor, all of which is a highly manual process. Given the way ETFs are constructed, it may not be possible for the administrators of the ETF to be able to collect the necessary forms and certificates from the end-investors and the investor thereby loses out on treaty access and experiences a degree of tax leakage.

The OECD Committee on Fiscal Affairs has released a report on "The Granting of Treaty Benefits with respect to the Income of Collective Investment Vehicles", which deals with the question of the extent to which collective investment vehicles (including ETFs) are entitled to treaty benefits on income received from the ETF's underlying investments. The report concludes that if an ETF is not entitled to claim benefits in its own right then the investors in the ETF should be able to claim treaty benefits. Given the administrative difficulties which may prevent individual claims by investors, the report concludes that countries should adopt procedures to allow the ETF to make a claim on behalf of the investor. Given the divergence of views between countries on this topic, it remains to be seen if these measures will be widely adopted. With respect to future treaties, the report suggests that the OECD Model Tax Convention should be expanded to include optional provisions relating to collective investment vehicles for countries in their future treaty negotiations. This may lead to greater clarity in the longer term.

## Conclusion

The regulatory objectives of the European Commission and the ESMA, including their focus on trade reporting, trade data repositories and the central clearing of OTC derivatives, are consistent with the EU's commitments to its G20 partners. The US (under the Dodd-Frank Act) and Japan have already passed legislation aimed at regulating OTC derivatives and so the provisions of MiFID II are essential to ensure that there is no global regulatory arbitrage. We are therefore moving into an era of global regulation which is in keeping with the globalisation of the financial markets.

Understandably, the failures and the subsequent unrest in global financial markets over the last few years have led to an increased focus by regulators on the products being actively sold to retail investors. As ETFs are generally considered to be a "retail-friendly" product, they have been caught up in the current regulatory fervour, which has ultimately led to a more involved and cautious approval process. The overriding principle at play amongst European regulators is "clear disclosure" and the insistence that offering documentation in respect of ETFs be drafted in clear and concise terms, appropriate for retail investors. While this intention is laudable, it does present difficulties for ETF providers as, irrespective of their commitment to meet with regulatory requirements, the tried and tested approach amongst the majority of providers is to rely on detailed and lengthy risk disclosure and legalistic language in order to protect themselves from (or at least mitigate) the potential risks associated with selling a financial product to the retail public. The implementation of UCITS IV and the requirement for the KIID with all of its prescriptive content should result in a middle ground being reached by July 2011.

***Author:*** *Elaine Keane is a senior associate in the investment funds group at the Dublin office of international law firm Maples and Calder.*

# Tax And Regulation Roundtable

Five experts give a transatlantic view of the latest developments

**The European And The US View**

*Major changes to the legal and tax framework for investment funds are occupying minds and threatening changes to business models. Will US regulators relax their stance on derivatives? Could new rules for the clearing of derivatives affect the economics of swap-based index replication in Europe? Are costs of compliance certain to rise? In order to put current regulatory developments into perspective,* Journal of Indexes Europe *spoke to experts from both sides of the Atlantic.*

## The European View

**Matt Tombs,**
**Partner, Deloitte**

***JoI Europe: What are the key tax issues facing European index investors over the coming year?***

**Tombs:** From a tax perspective, I expect to see focus on developing tax-transparent fund vehicles like the Irish Common Contractual Fund (CCF). Many European pension fund investors suffer much higher rates of withholding tax "drag" on dividends when investing via an ETF set up as a corporate fund—for example, a 15% deduction on dividends from US equities, while the index being tracked may imply an even higher rate of withholding tax deduction, say 30%. If a CCF was used, the rate would be 0%, which would be the same as if the pension fund were investing directly in the underlying US stocks.

It's become much harder to use alternative structures like equity swaps to get around such tax inefficiencies. And while securities lending can help to optimise post-tax dividend income rates, it's more useful within Europe than when investing in the US equity market—the CCF is looking to be the best solution for US equities.

Clearly, getting round the withholding tax issue would reduce tracking error in index-tracking funds. But, more importantly, unless this is resolved it will be very hard to convince pension funds, which are used to receiving US dividends gross of tax, to use index-tracking vehicles such as exchange-traded funds.

Increasingly double tax treaties are being written to allow pension funds to receive equity dividends with a zero tax rate, so if pooled funds don't allow them to access this rate then they contain a built-in disadvantage for the pension investor.

***JoI Europe: And what's important for Europe's indexing industry from a regulatory perspective?***

**Tombs:** One regulatory initiative which may have a big impact is Solvency II, the current review of the capital adequacy regime for Europe's insurance companies.

Under the new regime life insurance companies face stricter capital requirements. Having to pay the cost of putting up extra capital may mean that it will become much more expensive for insurance companies to invest in life insurance wrapped products offered by fund managers.

In response, insurers may choose to outsource their index-tracking portfolios to pooled funds instead. In fact, this could be a large business opportunity for the index fund industry, including ETFs. However, the rules in this area are still being hammered out, so we'll have to wait and see exactly how they are applied.

***JoI Europe: There's been some uncertainty about the tax status of exchange-traded commodities in some countries, notably the UK. How is this being resolved?***

**Tombs:** The UK's tax authorities have now confirmed that certain exchange-traded certificates (ETCs) giving delta one exposure to commodities can qualify for so-called reporting fund status and hence for capital gains tax treatment, rather than assessment at income tax rates, which are typically higher. Both physically invested and synthetic commodity ETCs can benefit from this.

There are some criteria to stop the principles being used for avoidance, so each case needs looking at individually, but we aren't seeing these criteria being an issue in practice. This very positive development should facilitate the distribution of ETCs into the UK taxpaying investor market.

***JoI Europe: Some industry observers have called for a "UCITS Tax Directive" to help move towards tax harmonisation in the European funds industry. How far are we from seeing this?***

**Tombs:** I think we're many years away from this and see very little appetite for tax harmonisation. European governments are currently too stretched managing their own fiscal positions.

***JoI Europe: What are the key remaining tax inefficiencies for European-domiciled index-tracking fund vehicles?***

**Tombs:** In certain European countries there's a possible problem with the equalisation of tax treatment for different investors in a pooled fund. Germany, for example, deals with this by requiring funds to declare capital gains/losses and earned income daily. The UK, however, requires only an annual declaration.

Less frequent income and capital reporting can lead to the so-called "last man standing" problem. Imagine a fund that doesn't operate tax equalisation and which has a hundred investors, each owning a £1 share, giving a total fund value of £100. Let's say the fund earns £5 in income during the year and its capital value remains unchanged. If 90 of the 100 investors redeem their shares on the last day of the reporting period they take out all their income gain as capital, while the remaining ten investors receive £5 of income on their collective £10 investment, incurring a potentially large tax bill.

Operating equalisation solves this problem, but the law that's been in place for the last 20 years to do this has not really worked, especially for ETFs. If you're an ETF provider with many hedge fund investors, for example, you have clients that typically see a rapid expansion and contraction of their asset base, meaning potentially large inflows and outflows in the ETF. This can create a potentially large tax inefficiency for any investors remaining in the fund, unless the ETF provider has agreed a concessionary basis of operating equalisation with HMRC. The UK tax authorities are currently working on a replacement regime but like everything to do with equalisation, it's proving complex.

***JoI Europe: What's your opinion of the overall tax efficiency of ETFs, as opposed to other index-tracking vehicles, for European investors?***

**Tombs:** Typically the differences from an overall tax perspective between different European Union pooled fund vehicles aren't enough to affect vehicle choice—though as investors get more sophisticated in their understanding of tax drag, this may change.

It doesn't really matter if you buy a Dublin-domiciled ETF or a Dublin-domiciled index mutual fund, for example. What's usually more important is cost. Does the average institutional or retail investor really need the ability to trade intraday that ETFs offer? By buying an ETF, you're incurring a one-size-fits-all fee. It's arguable that many investors would be better off going for a more traditional index fund, with only daily liquidity but at half the fee.

**Simon Gleeson,**
**Partner, Clifford Chance**

***JoI Europe: What are the key regulatory issues facing the index investing industry over the next year or two?***

**Gleeson:** First, I'd mention something that's been an elephant in the room for years. That's the issue of whether producing an index which is not completely passive is going to be treated by the regulators as a form of investment management. The point here is that purely passive replication is not seen as a form of investment management, nor as a regulated activity of any form.

But since Europe's Alternative Investment Fund Managers Directive (AIFMD) and the Dodd-Frank Act in the US are placing significant pressure on the existing business models of hedge fund managers, we are witnessing many of these managers trying to turn themselves from active managers into what they will describe as producers of semi-discretionary indices.

Sooner or later the regulators are going to have to address the issue of when an index provider becomes, in effect, an asset manager. That will potentially create quite a serious regulatory impact, as many entities that found themselves unregulated will suddenly find that they have to become regulated.

Another area I'd highlight is that in Europe we may end up with an exchange-traded fund architecture that is not double-regulated (as both a listed security and a UCITS fund). This double regulation is one of the continuing reasons for the relative underdevelopment of the European ETF market by comparison with that in the US.

I don't think that sorting this out is at the top of the European Commission's list of priorities, but it's undoubtedly there. If you look at the MiFID II proposals it's clear that the Commission is looking closely at the provision of retail investment products, and specifically at the desirability of offering non-complex, relatively low-fee products. For most purposes, this means ETFs.

Although the European legal system currently double-regulates ETFs, making it relatively difficult and expensive to issue and manage them, I believe there's now a real chance that the authorities will act to change this.

***JoI Europe: Aren't ETFs double-regulated in the US as well, as both funds and securities?***

**Gleeson:** No, in the US they operate under a series of "no-action" letters from the Securities and Exchange Commission (SEC), meaning that they are exempt from certain aspects of fund regulation because they comply with the SEC's definition of an ETF. I suspect that European regulators may follow a similar route, perhaps by creating a sub-division of the existing class and disapplying certain rules.

***JoI Europe: What do you make of the proposal floated by the European Commission, that a charge could be levied on all UCITS funds to cover the liability of depositaries? If implemented, wouldn't this significantly raise the costs for all regulated funds, particularly passive ones?***

**Gleeson:** I think this is extremely unlikely to happen. From a regulator's perspective, such a move might make sense, but from a political or economic perspective anything that reduces the return on people's savings is also going to worsen the pensions crisis, amongst other things.

***JoI Europe: How will UCITS IV impact the index-tracking and ETF industry?***

**Gleeson:** The big benefit of UCITS IV is that it enables managers to take certain costs out of their pan-European operations, allowing them to concentrate their activities and removing the need to maintain operations in each country. However, actually implementing cross-border fund mergers is more labour-intensive and costly than you might think.

At the product level, UCITS IV doesn't have much, if any impact.

For the European ETF market, it's the requirement to be a UCITS that keeps the operating costs of ETFs relatively high. So anything that removes part of the cost of being a UCITS is good news, broadly speaking.

***JoI Europe: In the US there's concern amongst regulators about funds' use of derivatives. In Europe, meanwhile, most ETFs are derivatives-based. Will there be any global convergence amongst regulators when it comes to using such contracts?***

**Gleeson:** If you ask people in Brussels about this, they'll respond that they've already spent ten years weighing up the use of derivatives by regulated funds, and are very reluctant to revisit the issue. In the US market, there are specific concerns about derivatives-based ETFs, based on their experiences after the crash. Europe didn't really have those experiences and so it's not such a big issue this side of the Atlantic. So I don't really expect any international coordination of policy in this area.

***JoI Europe: In Europe there's been a lot of debate recently about possible "bail-ins" of bank bondholders and the possible altering of bank insolvency systems to allow bondholders to suffer losses. How might that affect the over-the-counter derivatives market upon which a large part of Europe's ETFs depends?***

**Gleeson:** The current European Commission consultation document on the subject suggests that exposures resulting from derivatives contracts will not be included in bail-ins in any way. I think that's right, and it would be very worrying if you reached any other conclusion.

Having said that, there is a big issue about the future of derivatives-backed ETFs, arising from the likely future obligation to clear contracts with a central counterparty. If the derivative underlying the ETF has to be cleared centrally, then the client (the ETF) will have to post collateral, and there will be a cost associated with doing this. This, in turn will impact on tracking error and it's possible that synthetic tracking of indices could become uneconomic.

***JoI Europe: Doesn't the performance of swap-based ETFs already reflect some in-built costs of providing collateral?***

**Gleeson:** Yes, but the collateral requirements likely to be imposed by any central counterparty will be set by regulators and are likely to be much tougher than any set on a bilateral basis in the OTC derivatives market. That implies a sharply greater collateral cost.

***JoI Europe: What's the likely timeline for the possible move to a central counterparty?***

**Gleeson:** Probably the end of 2012, although regulators still have to specify which contracts are going to have to be cleared centrally.

***JoI Europe: Regulators from the G20 financial stability board to national bodies in the US and UK have been taking a closer look at ETFs. Some have been making comments about the possible risks associated with these funds. What do you think they're concerned about?***

**Gleeson:** There's a macroeconomic concern. Regulators are worried that ETFs are pro-cyclical and that in a financial crisis an ETF might be vulnerable to exactly the same runs that a bank might experience. Those responsible for macroeconomic regulation see clearly that the stability of the system would be increased if people invested through closed-ended, rather than open-ended vehicles. Could the intraday liquidity that ETFs promise actually pose a problem?

***JoI Europe: Could European index trackers see limits on commodities investing, in the same way as we've witnessed in the US?***

**Gleeson:** French politicians are passionately committed to this idea, while several other EU member states don't share France's opinion. But you can expect to hear a lot more talk in Europe over the coming months about the possible direct regulation of commodity prices. Any such discussions would have to encompass the commodity holdings owned by ETFs and ETCs.

## The US View

**George Simon,**
**Partner, Foley & Lardner LLP**

***JOI Europe: What are the key tax and regulatory issues facing the US index fund or ETF industry in the next year or two?***

**Simon:** I don't think the ETF industry is facing tax and regulatory issues per se, other than the fact that in the US ETFs are taxed and regulated in the same way as other securities. Obviously, there are the lowered US capital gains rates right now, and questions as to whether they may go up or down. However, other than that, I think there are some significant regulatory issues that must be faced.

First and foremost is the SEC. Given budget constraints and the demands of Dodd-Frank, it is resource-restricted in a huge way. As things stand now, every new fund complex has to get exemptive relief from the SEC, which is an extremely labour-intensive process that takes a minimum of about six months. I hesitate to say it's a waste of time, because that has a really negative connotation to it, but the fact is that the relief is fairly standardised by now. The SEC has had a rule proposal outstanding for several years now, which would allow would-be ETF issuers to avoid having to go through that extensive exemptive process for vanilla funds. For reasons that I think are very difficult to understand, the SEC has not taken action on that rule, and thereby has forced new funds to continue to go through this very extensive process in order to get their funds out the door.

That makes innovation more difficult and ties up very valuable resources that are needed in other areas—other ETF types of proposals and other things that the SEC's Investment Management Division is required to do under Dodd-Frank—in ways that are not particularly productive since the relief is pretty pro forma at this point.

***JOI Europe: Where are the product issuers really running into obstacles when they try to get approval for new products?***

**Simon:** There are a couple of areas. First of all there is the area of derivatives. What happened with derivatives really is a function of two separate issues. One is that leveraged ETFs, which are dependent upon the use of derivatives, are not providing the returns that investors had anticipated.

A leveraged ETF perfectly tracks the percentage movement of the underlying index for one day, but because of the way compounding works, if the index moves up and down over time, the leveraged ETF will always perform worse than the benchmark. Let's say an index starts at 100 and moves up and down a couple percent every day for a month or two: it's going to end up significantly lower than 100 at the end of that period of time, even if the underlying index ends up exactly where it started. The SEC has attempted to stop the growth of those funds, and FINRA has indicated that they're not acceptable investments for retail investors.

The second part of the derivatives problem is the disclosure, and this is really brought to light by what happened in the financial meltdown in 2008: without knowing the identity of the counterparty of a swap held in an ETF, and without knowing the terms of the swap, you really can't evaluate the risk to the fund. And the current level of disclosure for swaps that are held by ETFs is very minimal. The SEC is not going to approve any new ETFs that hold more than 5% of their holdings in derivatives. As a stop-gap measure, that makes some sense. It does, however, limit the ability of other kinds of funds to use derivatives to fill out their portfolio.

One other problem has to do with commodity-based or leveraged ETFs or any of the ETFs that would normally be using futures. Because funds using futures must constantly roll over their positions, there has been tremendous front running. That's what's forced these funds to move from the futures markets into the swap markets, where the credit risk has become such a major factor.

Derivatives is a significant area, but more important than that, at least in my mind, is active ETFs. The SEC has approved fully transparent active ETFs, but has steadfastly refused to deal with non-transparent active ETFs. The SEC issued a concept released on actively managed ETFs seven or eight years ago, and notwithstanding the fact that the issues raised in that release have been fully addressed by various proposals which are sitting at the SEC, the agency has taken no action on them.

I think that that is probably the biggest obstacle for the next stage in the development of the ETF, because obviously the most substantial portion of the open-ended mutual fund market is actively managed funds. If the ETF market can provide a product that combines the advantages of ETFs and the advantages of active management, that will be a true game changer in the ETF world. I believe that there are products at the SEC now that have the potential to do that if they can get approved.

***JOI Europe: Have you noticed if regulatory changes are being coordinated worldwide among different regulatory agencies?***

**Simon:** That's a broader question than just ETFs. Obviously, the place where that becomes of greatest importance is in the use of swaps. Just to put a microscope on this issue for the moment, the biggest concern in the derivatives market meltdown in '08 was a result of the swap guarantees that were provided by the London office of AIG. And in fact, I would point out that a large number of the exchange-traded products in Europe that are commodity-based were based on swaps that were issued by AIG. As a result of its swap exposure, that division of AIG became insolvent, and the institution as a whole had to be bailed out.

The result of that is Dodd-Frank, which has all of these provisions regarding transparency and clearing and credit protection for swaps. But all of that, of course, does no good if the swaps are entered into outside the United States, as all of the AIG swaps were. They were all done in London. So, the efficacy of the swaps provisions in something like Dodd-Frank is only as good as the willingness of European and other regulators to implement similar provisions. There have been attempts to coordinate that regulatory structure, but it's certainly not complete.

***JOI Europe: The SEC seems to have soured on derivatives to a certain extent. How far does this aversion extend into the ETF/index fund industry? Moreover, Europe seems to have embraced derivatives—why is their point of view so different?***

**Simon:** Basically, futures are out of the picture because of the issues with rolling. It's just impossible to do that. So with commodity based ETFs, really the choice is to actually hold the commodity in the ETF as you do for things like GLD or to use swaps, which the SEC has basically said they are uncomfortable with because of the credit issues and the transparency issues. That's going to take some time to work out—no question in my mind.

My perspective on Europe is that the derivatives market in Europe far surpasses the common share market in terms of dollar volume. It's just a bigger market. And as a result of that, it's heartier and stronger and more accepted in the mainstream than here in the United States. Looking at the penetration of the derivatives market, if you look at the number of accounts in the derivatives market in the United States as compared to the number of accounts holding securities, it would be dwarfed. It would be a minor, minor percentage, whereas in Europe, that's less the case. It's really a function of—to put it bluntly—market share within an economic community.

***JOI Europe: Fund fees have been coming down, but is the cost of compliance driving them back up?***

**Simon:** I don't get that sense. It's not the cost of compliance that's going to be problematic: it's the cost of registration that's going to be an issue, and this is where you get into falling down the rabbit hole. Dodd-Frank contains a provision that increases the SEC's budget geometrically over time to allow it to deal with the many issues that now confront the regulator. The SEC, in turn, bases its filing fees on that budget. As a result of that, the registration fees and trading fees that are imposed by the SEC are rising exponentially. But, I mean, here's where the rabbit hole comes in. Congress hasn't actually authorized those payments to go to the SEC. So, notwithstanding the fact that the money that's raised keeps going up, the amount that actually goes to the SEC doesn't.

So the SEC is caught shorthanded, which exacerbates a lot of the issues that that ETF providers are concerned with. And yet, fees continue to go up for the registration of new shares. I'm not talking about 2% or 3%. I'm talking about

20%, 30% increases. And so, I think that's going to provide more pricing constraints than compliance fees.

**W. John McGuire, Partner, Morgan, Lewis & Bockius LLP**

***JOI Europe: What are the key tax and regulatory issues facing the US index fund/ETF industry in the next year or two?***

**McGuire:** I think the big issue deals with derivatives. I think it's important for the ETF industry, and probably for index funds in general, to be able to use derivatives if they want to keep developing product. In the mutual fund area, they're allowed to. In the ETF area, you've got a different set of restrictions, and it's not a level playing field.

***JOI Europe: Where are product issuers running into obstacles when they are trying to get approval for new products?***

**McGuire:** In the US, there's an issue as to who the appropriate regulator is. Right now, the investment company registered with the SEC is the great model. That's a great structure for selling product to investors. But issuers want to come up with things that would give investors exposure to commodities and to things that are not traditional securities. Then you run into this regulatory issue as to whether it's appropriately governed by the SEC or the CFTC. I think that's something that is going to be more of a problem. But again, the general answer is still "derivatives."

***JOI Europe: Are regulatory changes being coordinated worldwide?***

**McGuire:** They're clearly not coordinated. You can't list a US ETF in Europe, and you can't list a European ETF in the US. In the Far East, you find both European ETFs and US ETFs. In Latin America, you're able to find both. You generally have this division between Europe and the US, and right now you generally have to run separate products in Europe and the US. I would say that Europe is probably an easier place to list things. I think that they are more open to alternative products.

***JOI Europe: Do you see any major differences in the regulatory environments around ETFs (and possibly index funds) in Europe and the US?***

**McGuire:** Yes. Europe, I think, is a little more open to new structures. I think in the US, they're very locked into [the idea that] you have to fit into an existing structure. The development of the ETF over 15 years ago was significant. But it's been baby steps since then. I think that in Europe, they're more open to innovation.

***JOI Europe: The SEC seems to have soured on derivatives to a certain extent. 1) How far does this aversion extend into the ETF/index fund industry? 2) Europe seems to have embraced derivatives—why is their point of view so different?***

**McGuire:** I remain hopeful that the SEC will change its views. I understand that some derivatives can be very scary, but as a factual matter, there are a lot of derivatives that are just very useful tools. The SEC already allows a lot of use of derivatives in other structures, like mutual funds. To continue to have it prohibited or restricted in ETFs—it's just not a viable long term position for them. I think they have to change that view. How quickly they will do it, I don't know, but I remain hopeful that they will.

The SEC is, as with any government agency, very sensitive to what is in the press, what is of interest on Capitol Hill, and there was some very negative press—and I do blame the press—about derivatives a few years ago. That got people on Capitol Hill excited, and so the SEC, you could argue, didn't really have a choice but to take a tough position on use of derivatives.

I'm not really sure why Europe is more open to derivatives.

***JOI Europe: Fund fees have been coming down, but is the cost of compliance driving them back up?***

**McGuire:** It certainly has put pressure on the profitability of the issuers, because it comes right out of their bottom line. I think that it has to ultimately put pressure to raise fees. It has just gotten more expensive to deal with the various compliance requirements.

***JOI Europe: What's the ideal fund/product structure for an index-tracking vehicle? Does it depend on the asset class?***

**McGuire:** I think it's the 40 act-registered exchanged traded funds—traditional ETFs. The iShares, SPDRs—I think that is the best thing. I don't think it depends on the asset class. We need to continue to work with the SEC to allow us to expand the asset classes that we can use with that structure. But it's a great structure.

**Francine Rosenberger, Partner, K&L Gates**

***JOI Europe: What are the key tax and regulatory issues facing the index fund/ETF industry over the next few years or so?***

**Rosenberger:** The most immediate regulatory issue is the ongoing review of derivatives at the Securities and Exchange Commission (SEC). This affects those US ETFs that are registered as investment companies with the SEC.

In March of last year, the SEC staff issued an announcement that they were reviewing the derivatives activities of all registered investment companies in the US market. The announcement covered mutual funds, unit investment trusts (UITs) and ETFs that are registered as investment companies. The review therefore excludes certain exchange traded products (ETPs) which have a different legal structure (grantor trusts like the iShares gold trust, for example). As part of the review, the SEC stated that it would not permit those ETFs that are regulated as investment companies to seek any further relief if they engaged in activities involving derivatives. Nor will the SEC staff process any applications for new ETFs that plan on using derivatives.

Those ETFs that are registered investment companies only operate pursuant to exemptive relief given by the SEC. The moratorium on processing exemptive applications for ETFs using derivatives is the SEC staff effectively saying, "If something goes wrong, it's not going to be on our watch."

It's my understanding that the then current Director of the Division of Investment Management, Buddy Donahue, had hoped to wrap up the derivatives review before his departure in November 2010. As we know, that did not happen. An interim Director of the Division of Investment Management was appointed following Donahue's departure and it wasn't until recently that a new permanent Director was installed. As a result of these staff changes at the SEC, a number of ETF groups have had their exemptive relief applications put on hold indefinitely or they've had to make representations to the SEC that they don't intend to engage in derivatives.

It goes back to a continuing problem that the ETF industry has faced in the United States: any time that ETFs fall into the category of an investment company and need to register as such, there are many hoops that they have to jump through. As a result, there are timing issues and the expense of obtaining exemptive relief. Although the SEC had proposed an ETF rule in 2008, it's still on hold. It's not clear when the rule will ever be adopted.

***JOI Europe: Where are product issuers running into obstacles when they are trying to get approval for new products?***

**Rosenberger:** If you already have your exemptive relief, you're golden unless you have to go back and get more—because the SEC staff will not allow you to obtain additional or amended exemptive relief until you make a representation that you're not going to engage in derivatives trades. Those fund complexes that don't intend to do so willingly make those representations and then move on. You'll see ETF relief coming through, but it's based on the fact that they've made those representations.

The other hurdle for new ETFs is navigating the listing process. Both ETPs and actively managed ETFs face this hurdle. The exchange listing rules do not provide generic listing standards for ETPs and actively managed ETFs. As a result, each time you list a product on the NYSE Arca exchange, for example, it has to be reviewed and approved by the SEC staff. You're looking at six months to complete the listing process.

***JOI Europe: Do you see any major differences in the regulatory environments around ETFs or index funds in Europe and the US?***

**Rosenberger:** In Europe, you have UCITS fund rules and the MiFID regulations covering trading. Almost all European ETFs are structured as UCITS, and under that framework you just go in and set a fund up as long as it complies with the rules. You don't have to go in and obtain special exemptive relief to operate an ETF, as you would have to do in the US market. The European process is much faster and more efficient. That is one reason why there is an incredible amount of growth in the European market for ETFs.

And that's also why, to some extent, the UCITS model is preferred and more easily passported into other areas of the world, such as Asia for example. The UCITS model is more universally recognized than the US model as the regulators in other countries are very comfortable with it.

***JOI Europe: The SEC seems to have soured on derivatives to a certain extent, but Europe seems to have embraced derivatives—why is their point of view so different?***

**Rosenberger:** I don't think the two regulatory schemes are necessarily that different with respect to derivatives. The Europeans have limitations on leverage, for example, as well as on the types of investments UCITS funds can hold.

In the US market, there has been tremendous growth and activity with ETF products over the past several years, and just a lot happening with the Flash Crash and the downturn in 2008. I think the regulators are trying to wrap their heads around what is going on in the market and what products are affecting the market. From the SEC staff's perspective, the fact that they have to grant affirmative relief to new ETFs gives them a way to slow down the flow a little, which is what they have done.

***JOI Europe: Fund fees have been coming down but is the cost of compliance driving them back up?***

**Rosenberger:** There is pressure from increased compliance costs but there is even more pressure from competition to push fees down. I think this pressure cooker environment is the reason why you have the "big boys" entering the market. The bigger you are, the more likely you are going to be able to knock over another big guy, while it's just tough for the little guys at this point. What concerns me is the potential for more regulation of ETF activities from the CFTC. We could end up with duplicative registration and regulation procedures that may provide little benefit to investors but increase operating costs significantly.

***JOI Europe: What's the ideal fund/product structure for an index-tracking vehicle? Does it depend on the asset class?***

**Rosenberger:** What determines the regulatory structure an ETF or ETP falls under is the type of investments it will make. That is the way the US securities regulatory scheme is designed. For example, if a fund invests primarily in equity, fixed income or any kind of security, then it will have to be a registered investment company. If a fund invests in swaps on securities, it also will have to be a registered investment company. But if the fund invests solely in futures or commodities, then it cannot be a registered investment company and will have to register as a regular public offering.

# Dividend Tax Leakage In Popular Equity Indices

## The problem of tax leakage

By Paul Amery

Dividend "tax leakage" is a concern for any investor in collective investment vehicles (CIVs) that own shares in overseas equity markets. Tax leakage occurs when investors in a fund are forced to suffer withholding taxes on dividends from the underlying shares at a higher rate than would have applied if they had purchased those shares directly.

For a pension fund investor, for example, double tax treaties often allow for the rate of withholding tax on overseas equities to be reduced to zero. Accessing foreign equities via a pooled fund may make great practical sense for an investor, as this enables portfolio diversification via a single purchase. However, to the extent that a fund suffers withholding taxes that cannot be reclaimed on its overseas equity income, there is an automatic drag on the returns received by the end-investor.

Collective investment vehicles may be able to gain access to some tax relief under double taxation treaties (in other words, dividend withholding tax rates may be reduced, if not eliminated completely). However, according to Paul Radcliffe, senior vice president in Citi's Tax Products and Transactions group, "claiming double taxation treaty ('treaty') benefits by collective investment vehicles can be a vexed subject. Treaty interpretation can differ from source country (the country in which the income arises) to source country; the treaty claim process can be laborious, unclear and paper-intensive, with treaty forms being required to validate a claim; and the layout and information required by such forms may differ, based on each source country's requirements." [1]

For passive, benchmark-tracking vehicles such as exchange-traded funds (ETFs) and index funds, dividend tax leakage is a particular problem. Tracker funds aim to do what their name suggests—track their underlying indices. However, any lost dividend income leads directly to an unrecoverable tracking error between the fund and its index benchmark (assuming that the benchmark is based on the receipt of dividends before any deduction for withholding taxes). This tracking error is incurred over and above the more familiar underperformance that results from portfolio management expenses.

According to David Blitz, Joop Huij, and Laurens Swinkels[2], "European index funds and exchange-traded funds underperform their benchmarks by 50 to 150 basis points per annum. The explanatory power of dividend withholding taxes as a determinant of this underperformance is at least on par with [that of] fund expenses."

In practice, index providers do factor in the effect of dividend withholding taxes into their return calculations, by publishing both "gross total return" (i.e., pre-withholding tax) and "net total return" (post-withholding tax) versions of international equity indices.

In turn, index fund and ETF managers usually track the post-tax, net total return, rather than the zero tax (gross total return) versions of their benchmarks.

In this article we seek to quantify the dividend tax leakage that has occurred over the last ten years in seven popular index benchmarks. Dividend tax leakage is defined as the proportion of the gross dividend income forgone by an investor receiving only the net, post-withholding tax index

**Figure 1a**

**MSCI World**
USD returns to 31/12/2010

| Index | 1y (%) | 3y p.a. (%) | 5y p.a. (%) | 10y p.a. (%) | 10y (%) |
|---|---|---|---|---|---|
| MSCI World Price Index | 9.55 | -6.95 | 0.35 | 0.47 | 4.82 |
| MSCI World Net Total Return Index | 11.76 | -4.85 | 2.43 | 2.31 | 25.63 |
| MSCI World Gross Total Return Index | 12.34 | -4.29 | 2.99 | 2.82 | 32.03 |
| Percentage tax leakage[3] | 21 | 21 | 21 | 22 | - |

**Source:** MSCI

**Figure 1b**

**MSCI Emerging Markets**
USD returns to 31/12/2010

| Index | 1y (%) | 3y p.a. (%) | 5y p.a. (%) | 10y p.a. (%) | 10y (%) |
|---|---|---|---|---|---|
| MSCI EM Price Index | 16.36 | -2.59 | 10.26 | 13.18 | 244.94 |
| MSCI EM Net Total Return Index | 18.88 | -0.32 | 12.78 | 15.89 | 337.02 |
| MSCI EM Gross Total Return Index | 19.20 | -0.03 | 13.11 | 16.23 | 349.98 |
| Percentage tax leakage | 11 | 11 | 12 | 11 | - |

**Source:** MSCI

return. We look at the trends in tax leakage and the absolute levels of leakage from the indices surveyed. To get a feel for the importance of dividend tax leakage as a cost faced by the end-investor, we compare average tax leakage with funds' expense ratios. Finally, we examine the withholding tax rate assumptions used by index providers and question their appropriateness.

## Tax Leakage Quantified In Popular Benchmarks

We examined the dividend tax leakage, defined as the difference in return between the net total return and gross total return versions, for seven selected index benchmarks. Return data were collected for the ten calendar year period 2001-2010. Indices were chosen from the ranges offered by the two largest index providers in the European ETF market: MSCI and STOXX (according to BlackRock's "ETF Landscape: Industry Highlights" publication, these two firms have a combined 41% market share in Europe at end-February 2011, as measured by the assets under management in related ETFs).

The seven indices surveyed included two with exposure to global equities (MSCI World and MSCI Emerging Markets) and five with intra-European cross-border exposure (five supersector indices from the STOXX Europe 600 range, covering banks, basic resources, oil and gas, telecoms and utilities).

For the purposes of comparison, a price index return series (i.e. the index return without any dividend reinvestment) was also calculated in each case.

For investors in funds tracking the MSCI World index (see Figure 1a), practically all the returns over the last ten years have come from dividend income (the price index rose by a mere 0.47% per year for the ten year period 2001-2010). Investors receiving full (gross) dividends from the MSCI World index's components achieved a return of 2.82% a year, resulting in a total period return of 32%. Investors receiving net (post-tax) dividends achieved a return of 2.31% per annum, resulting in a total period return of 25.63%.

Over ten years, the annual average tax leakage on the MSCI World index was 22%. The degree of tax leakage reflects (a) the country composition of the index over time and (b) the differing withholding tax rates[4] applied by the index provider to equities from those countries.

The MSCI Emerging Markets index (see Figure 1b), which underlies some of the world's largest ETFs, provided handsome capital gains over the last decade, meaning that dividend income was perhaps of a lesser concern to end-investors than price appreciation. Nevertheless, gross dividends from the emerging markets index's constituents added 3.05% a year to the price index over the ten year period (exceeding in percentage terms the income stream from developed market stocks, as measured by the MSCI World index).

Tax leakage in the net version of the MSCI Emerging Markets index was half that experienced by investors in the MSCI World index (11% per annum over ten years in MSCI Emerging Markets, compared with 22% for the MSCI World).

Why was dividend tax leakage less of a concern for emerging markets investors than for investors in global developed equity markets?

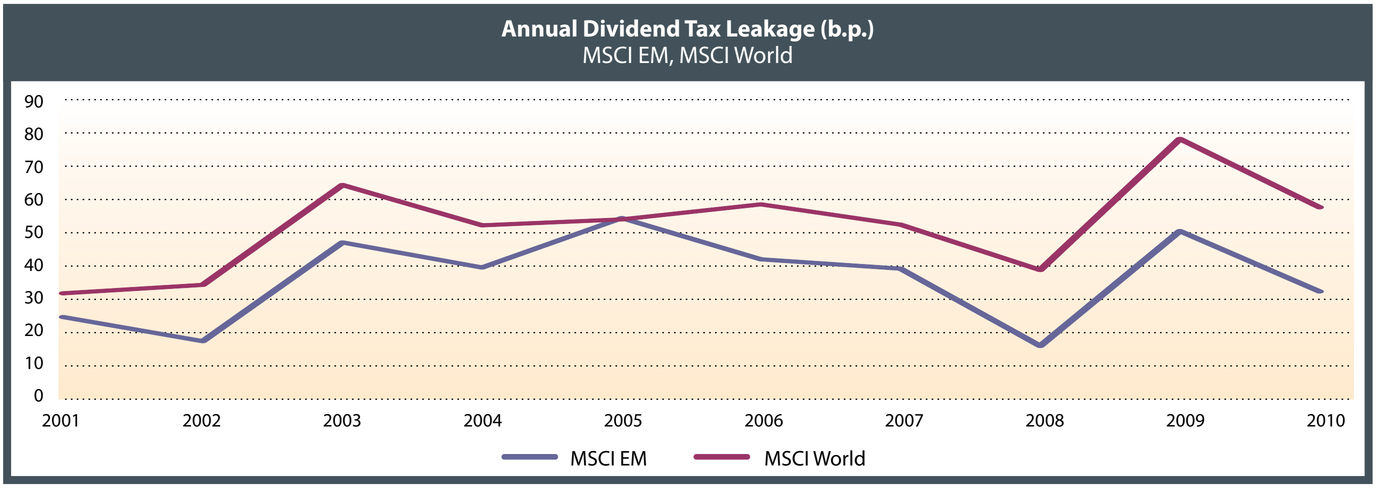
The withholding tax rates applied by MSCI to dividends from equities in the seven countries with the largest weightings in its Emerging Markets index are as follows: China (0% or 10%, depending on the type of share); Brazil (0%); Korea (22%); Taiwan (20%); India (0%); South Africa (0%); Russia (15%).

By contrast, the MSCI World index has one very large component, the US market, with a 49% weighting at the end of 2010. MSCI applies the maximum, 30% withholding tax rate to all US equity dividends when compiling its net index version.

In other words, developed markets tax dividends more heavily, on average, than emerging markets.

The absolute annual dividend tax leakage in MSCI's two indices is represented graphically in Figure 1c. For the MSCI World index in particular, the tax leakage has grown over the decade. The jump in leakage for both indices in 2008/09 is explainable by the fall in equity market values:

**Figure 1c**



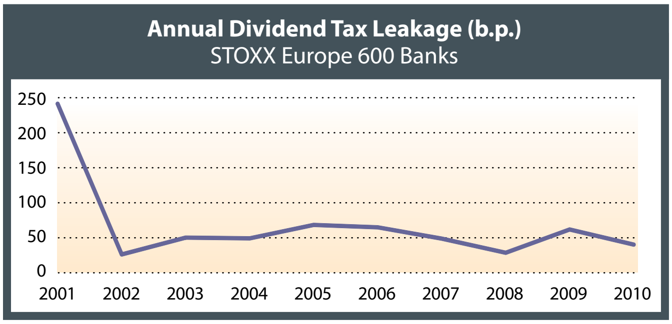

**Source:** MSCI

**Figure 2a**

| STOXX Europe 600 Banks<br>EUR returns to 31/12/2010 | | | | | |
|---|---|---|---|---|---|
| **Index** | **1y (%)** | **3y p.a. (%)** | **5y p.a. (%)** | **10y p.a. (%)** | **10y (%)** |
| **STOXX Europe 600 Banks Price Index** | -11.57 | -22.65 | -14.51 | -6.89 | -51.05 |
| **STOXX Europe 600 Banks Net Total Return Index** | -9.61 | -20.20 | -11.77 | -3.98 | -33.35 |
| **STOXX Europe 600 Banks Gross Total Return Index** | -9.21 | -19.76 | -11.29 | -3.30 | -28.54 |
| **Percentage tax leakage** | 17 | 15 | 15 | 19 | - |

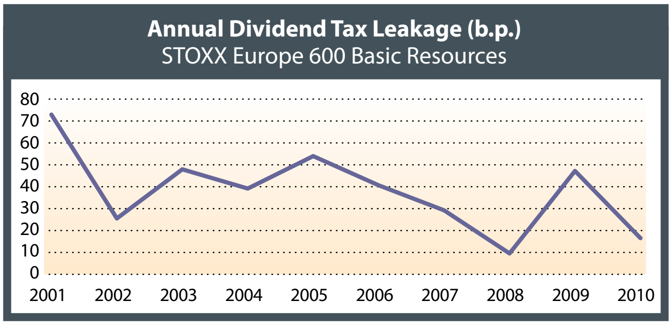
**Source:** STOXX

**Figure 2b**




**Source:** STOXX

**Figure 3b**




**Source:** STOXX

**Figure 3a**

| STOXX Europe 600 Basic Resources<br>EUR returns to 31/12/2010 | | | | | |
|---|---|---|---|---|---|
| **Index** | **1y (%)** | **3y p.a. (%)** | **5y p.a. (%)** | **10y p.a. (%)** | **10y (%)** |
| **STOXX Europe 600 Basic Resources Price Index** | 26.58 | -3.21 | 9.45 | 10.87 | 180.71 |
| **STOXX Europe 600 Basic Resources Net TR Index** | 28.57 | -1.27 | 11.84 | 13.81 | 264.70 |
| **STOXX Europe 600 Basic Resources Gross TR Index** | 28.73 | -1.07 | 12.09 | 14.17 | 276.23 |
| **Percentage tax leakage** | 7 | 9 | 9 | 11 | - |

**Source:** STOXX

as share prices fell, dividend yields rose, and dividend taxation therefore consumed a greater absolute proportion of an investor's total return.

Investors in STOXX's Europe 600 banks index, a widely used benchmark, suffered a price drop of over 50% during the last decade (see Figure 2a). However, recipients of net dividends clawed back part of this loss, achieving a return of -33%, while for those receiving full (gross) dividends, losses dropped to -29% for the whole ten year period. Overall, gross dividend income from Europe's banks added 3.59% a year to an investor's return during the period.

The tax leakage represented by a move from gross to net dividends was 19% per year for the decade, the largest drop in income for any of the five STOXX Europe 600 supersector indices we surveyed. As shown in Figure 2b, the average annual dividend tax leakage in recent years has been around 50 basis points, although there was a much larger gap between gross and net index returns in 2001.

Although gross dividends added 3.3% a year to the price return for an investors in the STOXX Europe 600 Basic Resources index (see Figure 3a), a similar level of yield to that received by investors in the bank index for the same period, dividend tax leakage for basic resources investors was substantially lower than for investors in the STOXX Europe 600 banks index.

The difference is explained by variations in the withholding tax rates applied by STOXX for companies incorporated in different European countries. Dividends from UK-domiciled entities have a zero withholding tax rate, compared with 26.38% and 25% for dividends from German and French companies, respectively.

While there are many German and French companies in the STOXX Europe 600 banks index, the top four companies in the basic resources index (Rio Tinto, Anglo American, BHP Billiton and Xstrata) are all UK companies, meaning that their dividends attract no taxation in STOXX net return index version.

The absolute annual level of dividend tax leakage in the STOXX Europe 600 basic resources sector has fallen over the last decade as a result of the growth in share prices and the resulting fall in dividend yields (see Figure 3b).

Dividend income represented all the positive return achieved by investors in the STOXX Europe 600 Oil and Gas index over the ten-year period 2001-2010, since the index's price level ended the decade slightly lower than where it began (see Figure 4a). Gross average annual dividend income added 3.61% a year to the price return over the ten years, while net income added 3.12%.

Absolute annual tax leakage (see Figure 4b) was on a rising trend for the decade, a reflection of the steady rise in yields from shares in the sector.

Telecoms stocks have become a staple of yield-seeking investors' portfolios and, over the ten years under review, gross dividend income reduced a 46% loss in share prices from the STOXX Europe 600 telecoms index's components to a more bearable 20% loss (see Figure 5a). With the receipt of net dividends, the loss for the decade was just under 25%.

The percentage tax leakage for the decade for investors in the net total return index was 16%. On an absolute basis, the leakage has been increasing steadily (see

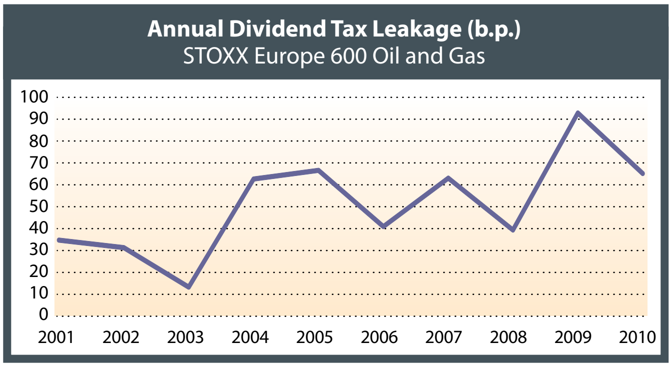
**Figure 4a**

**STOXX Europe 600 Oil and Gas**
EUR returns to 31/12/2010

| Index | 1y (%) | 3y p.a. (%) | 5y p.a. (%) | 10y p.a. (%) | 10y (%) |
|---|---|---|---|---|---|
| STOXX Europe 600 Oil and Gas Price Index | 0.46 | -9.05 | -3.41 | -0.42 | -4.14 |
| STOXX Europe 600 Oil and Gas Net TR Index | 3.32 | -5.67 | -0.17 | 2.70 | 30.54 |
| STOXX Europe 600 Oil and Gas Gross TR Index | 3.97 | -5.05 | 0.41 | 3.19 | 36.91 |
| Percentage tax leakage | 18 | 15 | 15 | 14 | - |

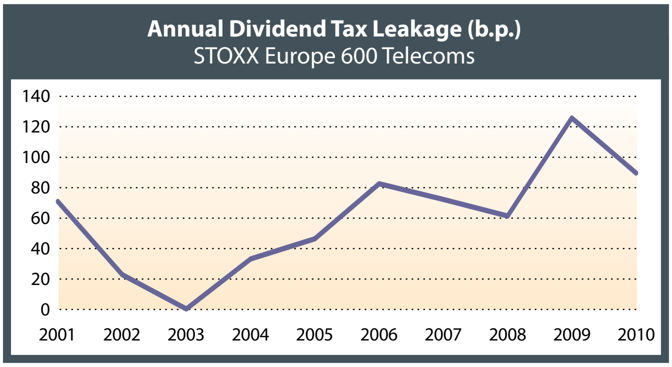
**Source:** STOXX

**Figure 4b**




**Source:** STOXX

**Figure 5b**




**Source:** STOXX

**Figure 5a**

**STOXX Europe 600 Telecoms**
EUR returns to 31/12/2010

| Index | 1y (%) | 3y p.a. (%) | 5y p.a. (%) | 10y p.a. (%) | 10y (%) |
|---|---|---|---|---|---|
| STOXX Europe 600 Telecoms Price Index | 3.00 | -10.04 | -0.50 | -5.92 | -45.67 |
| STOXX Europe 600 Telecoms Net TR Index | 8.90 | -5.07 | 4.40 | -2.77 | -24.48 |
| STOXX Europe 600 Telecoms Gross TR Index | 9.76 | -4.21 | 5.22 | -2.19 | -19.83 |
| Percentage tax leakage | 13 | 15 | 14 | 16 | - |

**Source:** STOXX

**Figure 6a**

| STOXX Europe 600 Utilities<br>EUR returns to 31/12/2010 | | | | | |
|---|---|---|---|---|---|
| **Index** | **1y (%)** | **3y p.a. (%)** | **5y p.a. (%)** | **10y p.a. (%)** | **10y (%)** |
| **STOXX Europe 600 Utilities Price Index** | -8.85 | -17.08 | -1.82 | 0.30 | 2.99 |
| **STOXX Europe 600 Utilities Net Total Return Index** | -4.49 | -13.35 | 2.01 | 3.98 | 47.70 |
| **STOXX Europe 600 Utilities Gross Total Return Index** | -3.46 | -12.45 | 2.85 | 4.64 | 57.45 |
| **Percentage tax leakage** | 19 | 19 | 18 | 15 | - |

**Source:** STOXX

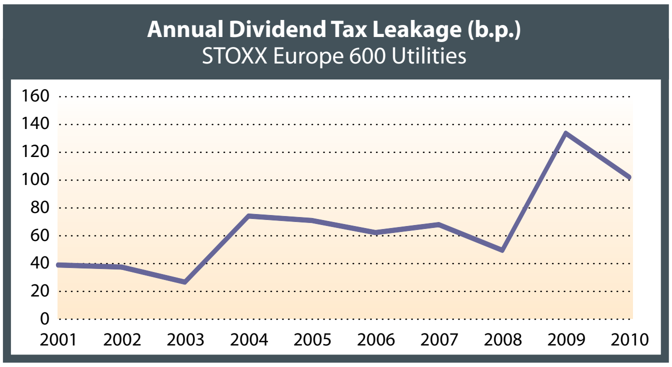
Figure 5b) and in 2009 exceeded 1%. The zero difference between gross and net telecoms index returns in 2003 in the chart reflects the almost universal cuts in dividends from sector constituents following the collapse of the technology bubble in 2000-2002.

Finally, for another income-producing equity sector, utilities, dividend leakage has also become a major concern.

The STOXX Europe 600 utilities index produced only a 3% price return for the whole 2001-2010 decade, but for an investor receiving gross dividends, the return figure jumped to a much more respectable 57% (see Figure 6a). Net of taxes, investors gained nearly ten percentage points less.

Over the ten years, the dividend leakage suffered by an investor in the net total return index averaged 15%.

**Figure 6b**




**Source:** STOXX

However, on an absolute basis (see Figure 6b), the return forgone by an investor receiving the post-tax dividend rate has exceeded 100 basis points a year in both of the last two years: a function both of the recent rise in dividend yields and of the index make-up, with the largest three companies (Germany's E.ON, France's GDF Suez and Italy's ENEL, which collectively represent 36% of the benchmark in March 2011) all suffering a dividend withholding tax rate of 25% or more.

## Tax Leakage Compared With Fund Expense Ratios

How important a cost is dividend tax leakage when compared with the stated headline cost of ETFs? In table 7, below, we calculate for all seven indices surveyed above, a simple average of annual absolute return differences between gross and net index versions over the ten year period 2001-2010. We then compare this annual average tax leakage with the average total expense ratio of all European exchange-traded funds currently tracking the relevant index.

Only in the case of ETFs tracking the MSCI Emerging Markets index does the average exchange-traded fund expense ratio exceed the average annual "cost" of dividend tax leakage over the last ten years. For all the other indices surveyed, the cost of tax leakage exceeded the average fund expense ratio. For two of the STOXX Europe 600 supersector indices surveyed—banks and utilities—the ten year average cost of tax leakage was more than double the current average ETF expense ratio.

Dividend tax leakage is a highly significant potential cost to investors, in other words.

## Are The Index Dividend Tax Rates Appropriate?

A rule of thumb is that index providers choose to assume the worst possible dividend tax outcome when calculating their net total return indices. For example, MSCI explains in its index calculation methodology publication that "this [net total return] series approximates the minimum possible dividend reinvestment. The dividend is reinvested after deduction of withholding tax, applying the rate to non-resident individuals who do not benefit from double taxation treaties. MSCI uses withholding tax rates applicable to Luxembourg holding companies, as Luxembourg applies the highest rates."

Is this assumption appropriate for European index and exchange-traded funds?

In several cases, it is possible for funds to achieve a better tax outcome than the index providers' net total return index calculation implies. ETFs domiciled in France, for example, receive dividends from French companies without any deduction of withholding tax, and the same is true for German-domiciled ETFs receiving dividend income from German companies.

Notwithstanding Paul Radcliffe's earlier comments about the difficulties faced by collective investment vehicles when reclaiming dividend taxes, in certain cases it is possible for them to do so. In several European countries,

**Figure 7**

**Tax Leakage vs. Fund Expense Ratios**

| Index | Average Annual Tax Leakage 2001-2010 (b.p.) | Ave. TER of European ETFs Tracking Index in Feb 2011 (b.p.) |
|---|---|---|
| MSCI World | 52 | 42 |
| MSCI Emerging Markets | 36 | 65 |
| STOXX Europe 600 Banks | 67 | 32 |
| STOXX Eur. 600 B. Resources | 38 | 32 |
| STOXX Eur. 600 Oil/Gas | 51 | 32 |
| STOXX Europe 600 Telecoms | 58 | 32 |
| STOXX Europe 600 Utilities | 67 | 32 |

**Source:** MSCI & STOXX

Securities lending is often used to "optimise" post-tax dividend rates, particularly within Europe. For example, according to the "Introduction to Securities Lending" published by ISLA, "an offshore lender that would normally receive 75% of a German dividend and incur 25% withholding tax could lend the security to a borrower that, in turn, could sell it to a German investor who was able to obtain a tax credit rather than incur withholding tax. If the offshore lender claimed 95% of the dividend, it would be making a significant pick-up (20% of the dividend yield)."[5]

ETF and index providers may make use of such tax arbitrage "earnings" to improve fund performance, but they are under no contractual obligation to credit any such earnings to their funds if they track an index version that assumes a worse tax outcome.

In summary, to the extent that an ETF or index fund is tracking a net total return index that assumes the worst possible dividend tax outcome (i.e. no relief under double tax treaties, no gross receipt of "domestic" dividends), that index return represents an extra cost to fund investors if the fund operator is in practice able to receive dividends at a better post-tax rate.

The impact of dividend tax leakage on index investors' long-term returns can be significant. The extent of tax leakage varies by index type, country exposure and pre-tax dividend yields.

for example, the 30% withholding tax rate on dividend distributions from US companies can be reduced to 15% by applying the double tax treaty between the US and the relevant jurisdiction.

The ability to gain treaty access may be dependent on the fund operator being able to demonstrate to the US authorities that a minimum percentage of investors in the collective investment vehicle is resident in the country concerned (51%, for example, in the case of the US double tax treaty with Ireland). For many Irish-domiciled funds sold to investors from across the region, this percentage of local ownership is unlikely to be reached and so treaty access is not guaranteed.

Given that the dividend yield on the S&P 500 index is currently around 2%, funds with access to the double tax treaty can receive a 1.7% post-tax rate of income rather than the 1.4% rate that the worst case tax outcome would imply—a 30 basis points return difference a year and a differential that would build up to significant extra performance over the longer term for investors with treaty access.

## Conclusions

The impact of dividend tax leakage on index investors' long-term returns can be significant. The extent of tax leakage varies widely by index type, according to the representation of different countries within the index's constituent list, and depending on the levels of pre-tax dividend yield. In a survey of seven popular international equity indices, tax leakage represented a greater cost to investors than fund expense ratios in all but one case. Index providers' assumptions of dividend withholding tax rates typically imply the worst possible outcome for investors. In practice, funds may achieve a better post-tax return, although fund managers are under no obligation to pass on any improved tax rate.

## References


[1] http://www.tax.org.uk/OneStopCMS/Core/CrawlerResourceServer.aspx?resource=1954972a53b743adb40fbbd21f947659&mode=link&guid=402d1777d97d4771aec8a84a905b89eb

[2] http://papers.ssrn.com/sol3/papers.cfm?abstract_id=1438484

[3] Defined as 1-((net index return-price index return)/(gross index return-price index return))

[4] The index withholding tax rates used by MSCI are specified in http://www.mscibarra.com/eqb/methodology/meth_docs/MSCI_Feb11_IndexCalcMethodology.pdf, pp 51-52. For STOXX, see http://www.stoxx.com/indices/taxes.html

[5] See http://www.isla.co.uk/uploadedFiles/Publications/intro-to-securities-lending-v1-chapter3.pdf, pp 28-29

# Tax-Transparent Investing Via Common Contractual Funds

Overcoming tax inefficiencies via asset pooling

By Mark Cerimele, Shawn Travis, Kerry White

In this article, we aim to define what is meant by 'asset pooling'. We also seek to outline the benefits available to institutional investors who choose to invest their assets via a tax-transparent pooling structure such as the Irish Common Contractual Fund (CCF). Properly establishing the infrastructure to support a CCF requires a degree of effort, but the benefits make these efforts worthwhile.

## Background On Asset Pooling

Asset pooling arrangements or structures allow many different investors to pool their assets in order to co-invest. Asset pooling allows investors to spread their exposure and reduce portfolio administration expenses because the co-investors share costs such as investment management fees, administration expenses and custodial fees.

Asset pooling is a common arrangement employed by investment companies to offer investors of varying scale access to specialist investment products. These companies create investment pools such as mutual funds, UK OEICs, Irish VCCs and investment trusts, and distribute them to individual and institutional investors.

## Rationale For Using Pooled Funds

When investors pool their assets and invest collectively, they benefit from lower asset management, transaction and other related expenses, when compared with investing separately and individually. The investor will generally also realise other economic benefits, such as reduced brokerage expenses, because the asset manager executes larger trades. When coupled with the reduced charges incurred for custodial services, there can be a significant reduction in the overall unit cost involved when buying and holding pooled funds, by comparison with the expense of maintaining segregated portfolios.

Certain pooled funds may also be subject to reduced or zero value-added tax (VAT) charges for specific portfolio management and administration services, when compared with separately managed accounts. In addition, pooled funds offer smaller investors access to specific asset management capabilities and specialist mandates that might normally be outside their grasp as a result of costs or high minimum investment sizes.

During the past decade, institutional pension investors have increasingly used pooled arrangements as a part of their overall plan structure. Using pooled arrangements, pensions can centralise the administration of multiple pension fund schemes, eliminating duplicate administrative and custodial services in multiple jurisdictions. In the US, pension plan sponsors use Master Trust arrangements to pool the assets of their various pension plans. Noting the efficiency of the Master Trust structure in the US, many pension plan sponsors have sought a similar vehicle to enable the pooling of their global (or pan-European) plan assets in order to gain similar efficiencies. However, creating a pan-European pooled vehicle is a complicated undertaking, as each EU country is is governed by its own set of laws and requirements.

## Tax-Transparent Pooled Funds

Tax-transparent pooled funds have the quality of offering beneficial owners (investors) from different domiciles the opportunity to retain their current (home state) tax profile. This benefits tax-exempt investors, who may enjoy attractive treaty rates between their home market and the countries of investment within their portfolios. In addition, multinational companies which sponsor pension schemes in several countries now have the potential to 'pool' their pension assets in a single fund without suffering incremental tax expense. The pooled fund then invests in assets on behalf of the investing pension funds.

In Europe, investors have a wide variety of pooled fund vehicles to choose from to meet their investment objectives. UCITS-compliant vehicles such as the Irish Common Contractual Fund (CCF) and its Luxembourg equivalent, the Fonds Commun de Placement en valeurs mobilieres (FCP) are often described as the first viable tax-transparent vehicles for global institutional pension plans. The Fonds voor Gemene Rekening (FGR) in the Netherlands provides another example. The UK's HM Treasury announced in its March 2011 budget that it will consult on a new tax-transparent authorised fund regime in June 2011, with the new regime due to be implemented in 2012. The remainder of this paper focuses on the Irish CCF as a specific example of such a tax-transparent structure.

## CCF Product Structure And Features

The CCF is a contractual arrangement established under a deed under which investors participate as co-owners of the assets of the fund. A CCF is not a separate legal entity and is considered to be transparent for Irish legal and tax purposes. Investors in a CCF are treated as if they own a proportionate share of the underlying investments, rather than shares in an entity which then owns the underlying investments.

The ownership interests of participants are constituted as 'units' which are issued and redeemed by the manager in a manner similar to a unit trust.

## CCFs And Taxation

For many years, investors in certain markets have been penalised from a withholding tax perspective when using pooled funds, compared with investing directly in the underlying assets. For some, this has meant that administrative and management savings gains can be wiped out by the loss in tax benefit. As a result, investors need to ensure they are not in a tax-disadvantaged position if they choose to pool their assets.

The CCF helps to alleviate this problem as it facilitates direct access to tax treaty relief in an investor's home country. There should be no incremental tax expense (commonly referred to as 'tax drag') arising from the application of withholding taxes across the pool, because investors in the pool will continue to benefit from the relevant home country treaty benefits as if they had invested on a segregated basis.

To enable participants to access double taxation treaty (DTT) benefits, the CCF must be treated as a fiscally transparent entity for tax purposes. In practical terms this means that:

- The CCF itself must not suffer tax in Ireland.
- The character and source of the income or gains received by the CCF should not be 're-categorised' on distribution to participants. Such income and gains should be subject to the same tax treatment in the hands of the participants as if they had been received directly by them, rather than via the CCF. Participants in the CCF must be taxed on a current basis on any income derived through the CCF. In other words, the income and gains will be treated as arising or accruing to each participant in the CCF in proportion to the units owned by them.
- The tax authorities in the jurisdictions in which the investors are domiciled must be satisfied that they can certify any DTT claims made by the CCF participants, even though the income for which DTT relief is claimed is being derived through the CCF. (Our understanding is that the CCF structure will enable such certification.)
- The source country tax authorities (i.e. the country of issue of the relevant security) must grant double tax treaty relief to the CCF participant (not the pooled vehicle) in respect of income or gains.

## Legal Features Of A CCF Required To Facilitate Tax Transparency

To assist in achieving tax transparency, a CCF should have the following characteristics. These characteristics differentiate a CCF from a corporate body, which is not tax transparent.

- Income derived through the pooling vehicle should be distributed on a mandatory basis annually, pro rata to each participant's investment in the CCF. This ensures that the income is both accounted for and taxed on an 'arising'/current basis.
- The CCF participant should be provided with an annual breakdown of income on investments by type and source.
- No redemption charge should be levied on participants.
- No 'investor' meetings (i.e. meetings similar to shareholder meetings) should be permitted.
- The Irish tax authorities must view a CCF as a transparent vehicle for Irish tax purposes.
- Holdings/units in a CCF should not be freely transferable, but are redeemable. It has however been accepted that units may be transferred in limited circumstances, i.e. with the prior consent of 100% of unitholders and the manager.
- A CCF should not be a separate legal entity having its own legal capacity/personality. Factors influencing the CCF's legal status will include the CCF's capacity to: (a) acquire rights and assume obligations; (b) hold assets and liabilities; and (c) enter into agreements.
- Assets should be jointly held by participants pro-rata to their investment.

Care needs to be taken to ensure that commercial negotiation or legal redrafting does not water down these provisions.

## CCF Treatment In Other Jurisdictions

The overriding question is whether the tax authorities in the investor's jurisdiction and the tax authorities in the jurisdiction where the assets are located will accept the transparency of the CCF. This acceptance is required to entitle the participating pension funds to access the DTT between their home jurisdiction and that of the jurisdiction where the assets are located.

Determining how foreign tax authorities would view a CCF takes two principal forms. In some cases rulings have been obtained from tax authorities (such as in the UK and Netherlands). In other cases, such as in the US, investors rely principally on tax opinions from local tax advisers. While sponsors of a CCF will need to obtain rulings and/or tax opinions in relation to their own CCF products, the tax transparency of the CCF should generally be viewed positively in North America, in Australia and by most Northern European countries.

## Multinational Corporation Case Study

Asset managers and global service providers have developed the legal, tax and fund administration infrastructure necessary to support the CCF. With the infrastructure now in place, the CCF has become an appealing investment vehicle for institutional investors seeking a tax-efficient pooling vehicle. Multinational corporations with employees and funded retirement plans located in multiple jurisdictions probably have the most to gain by investing in the CCF structure. CCFs offer multinationals tax efficiency, asset diversification, improved risk management and centralised corporate governance.

To help illustrate these benefits, we will look at a case study involving a multinational corporation's investment into alternative investment vehicles. In this scenario, a multinational has funded employee pension plans in the UK (US$300 million), the Netherlands (US$300 million) and Switzerland (US$300 million) and wishes to invest these assets in a US equity mandate yielding 2% in dividend income. The three country pension plans independently have a number of different investment vehicle options within both their local jurisdiction and other jurisdictions. We analyse three such investment vehicle options: the Irish Variable Capital Corporation (VCC), a separately managed account (SMA) and the Irish CCF. The first factor that we analyse is the tax efficiency of each vehicle.

### 1. Tax Efficiency

Eighteen million US dollars in dividend income is generated annually on a US$900 million investment yielding 2%. Being a pooled corporate vehicle, the VCC is subject to withholding tax when dividend income is received by the fund. For an Irish VCC, the withholding tax rate on income generated by US equities is 30%, resulting in a withholding tax impact of US$1.8 million for each pension plan, or a total of US$5.4 million for the multinational in total, which cannot be reclaimed.

A second investment option is for each pension plan to hold the US equities directly within their own SMA, where the withholding tax consequences are much more favourable than those of the Irish VCC because the pension plans can access more favourable tax treaty rates. In this case, all three pension plans are subject to a 0% withholding rate because the double tax treaties between the jurisdiction of each pension plan and the jurisdiction of the source income (US) is 0%. The end result is that the multinational can retain the entire US$18 million in dividend income generated from their investment (US$6 million for each pension plan). However, although the SMA is a tax efficient option, there are additional financial and administrative drawbacks. See below.

The CCF was designed as a tax transparent vehicle, meaning that withholding tax applies to the underlying investors rather than to the fund itself. When established appropriately, the CCF yields identical tax treatment to that of the SMA option, resulting in the multinational corporation receiving the entire US$18 million in dividend income. In this scenario, we look only at US equities as an example, but other asset classes can also be held within a CCF.

cutody and administration costs independently, generally resulting in higher costs within the SMA structure than in a pooled vehicle such as the CCF or VCC.

We looked at modest-sized country pension funds in three domiciles. However, large multinationals may have ten or more pension funds of varying sizes and domiciles. This example highlights the benefits to larger pension plans. However, smaller pension plans may have the greatest opportunity to benefit from economies of scale. The smaller country pension plans may be limited in their asset allocation and/or asset manager options, which inherently increases risk and cost. The CCF's asset pooling capabilities offer these smaller country pension plans access to more diversified investment mandates and a broader pool of asset managers, reducing cost and diversification risk.

### 3. Diversification And Corporate Governance

The trustees of local pension plans have to make many critical investment decisions, covering the investment vehicle structure, asset allocation strategy, investment mandates, investment policies and asset manager evaluation, selection and monitoring. Providing strong corporate governance across all local country pension plans can be logistically challenging, resource-intensive and costly.

The ability to manage and monitor pension plan assets as a larger consolidated investment pool (for example, within an Irish VCC or CCF) provides trustees with greater diversification of investment options and reduces administrative costs. It also enables the pension staff to perform more effective operational control and corporate governance. In a pooled structure, the trustees of multiple local pension plans are presented with consistent asset

**Figure 1**

**Investment Vehicle Comparison Summary**

| | Irish VCC | SMA | Irish CCF |
|---|---|---|---|
| **Dividend Withholding Tax Efficiency** | US$5.4 million withheld from multinational | ✔ Multinational receives entire US$18 million | ✔ Multinational receives entire US$18 million |

### 2. Economies Of Scale

Multinationals should consider whether or not they can gain economies of scale. Pooling the assets of multiple individual pension schemes in a single vehicle such as the CCF means asset managers often incur lower transaction costs by netting investor cash flows, which reduces the need to trade. Pooling also enables asset managers to reduce brokerage costs by placing larger trades. Asset managers and service providers can often negotiate lower custody and administration fees due to the larger pools of serviced assets. Within the SMA structure, each individual pension plan would incur the transaction, brokerage,

**Figure 2**

**Investment Vehicle Comparison Summary**

| | Irish VCC | SMA | Irish CCF |
|---|---|---|---|
| **Dividend Withholding Tax Efficiency** | US$5.4 million withheld from multinational | ✔ Multinational receives entire US$18 million | ✔ Multinational receives entire US$18 million |
| **Economies Of Scale** | ✔ Lower total costs incurred by multinational | Higher total costs incurred by multinational | ✔ Lower total costs incurred by multinational |

Figure 3

| Investment Vehicle Comparison Summary | Irish VCC | SMA | Irish CCF |
|---|---|---|---|
| **Dividend Withholding Tax Efficiency** | US$5.4 million withheld from multinational | ✔ Multinational receives entire US$18 million | ✔ Multinational receives entire US$18 million |
| **Economies Of Scale** | ✔ Lower total costs incurred by multinational | Higher total costs incurred by multinational | ✔ Lower total costs incurred by multinational |
| **Investment Diversification** | ✔ Greater diversification of investment opinions | Restrictions on investment options are typical and vary by country | ✔ Greater diversification of investment opinions |
| **Corporate Governance** | ✔ Allows for oversight of a consolidated asset pool and reduces administrative costs | Oversight performed at local plan level and increased administrative costs to report to multinational | ✔ Allows for oversight of a consolidated asset pool and reduces administrative costs |

class, investment mandate and investment policy options, enabling them to implement consistent investment decisions, while also retaining the flexibility to meet local needs. Trustee oversight is also more efficient within the pooled structure, due to the consistency of processes and reports provided by asset managers and custodians. This benefit becomes increasingly important for multinationals with smaller size country pension funds.

### Case Study Conclusion

Multinational corporations seeking tax efficient investments for their country pension plans are no longer required to make cost inefficient stand-alone investments within each jurisdiction, selecting from a limited choice of investment options and governed by independent committees. Regulatory changes have provided the framework for the tax-efficient pooling of assets. Asset managers and custodians are now working together to develop product solutions to take advantage of these regulatory changes. The Irish CCF is such a product solution, combining the tax-efficient nature of separate accounts with the economies of scale, diversification, corporate governance and cost savings benefits of pooled vehicles.

## Benefits To Other Institutional Investors

Other institutional investors can also benefit from investing in a CCF. Single country pension plans, corporate entities and government agencies can all take advantage of the tax-transparent nature of the CCF. These entities investing in a CCF should receive tax withholding treatment consistent with that of a segregated account. Add the potential VAT savings, economies of scale and investment diversification options that a regulated pooled vehicle such as the CCF offers and they can achieve considerable cost savings while also reducing risk.

Similarly, insurance companies which own and write business in multiple jurisdictions have historically borne the inefficiencies of managing diverse portfolios, which they must legally maintain to support the future liabilities that they may incur. Just as pension schemes can use vehicles such as the CCF to derive cost efficiencies and scale, insurers can also use such vehicles to manage their assets on a global basis, improving their risk profile.

## Conclusion

In order to create an optimal investment vehicle that will deliver the maximum benefits to investors, asset managers and custodians must work together with law firms and tax advisors to obtain tax rulings, develop the operational and systems infrastructure necessary to support the framework and ensure that all regulatory requirements are met. However, the benefits that the CCF has to offer, as outlined in this paper, greatly outweigh the effort associated with creating the investment solution.

# Could All Mutual Funds End Up As ETFs?

Are we heading towards a convergence of active and passive funds?

By Danièle Tohmé-Adet

The European exchange-traded fund (ETF) market has grown very rapidly, at an average annual rate of 30% since 2001. This has been due to growing demand from institutional investors, who have been attracted by ETFs' diversification benefits. Other reported benefits of ETFs, such as low cost, transparency and risk control, have also contributed to the growth trend. The trend has been so strong that some have even begun to speculate that ETFs could replace other types of funds altogether. Is it likely that ETFs could displace mutual funds completely, for example? Or could ETFs somehow merge with mutual funds?

## Europe's Rapidly Growing Market

Since their early development in Europe in 2001, ETFs have expanded to 22 exchanges, are monitored by more than 30 active market makers, cover approximately eight asset classes and encompass more than 37 issuers. Despite the entrance of many new participants, Europe's ETF market remains highly concentrated: three issuers control the lion's share of assets, with over 70% of the market between them.

The market's growth has been driven by institutions, which have been using ETFs as satellite asset allocation tools, mainly to de-correlate the returns of commodities, real estate, private equity and volatility. Sector rotation managers have also used ETFs significantly, benefiting from the flexibility and liquidity of these tools for achieving accurate and timely allocation.

ETFs have proved to be very handy tools for institutions, helping them to avoid certain regulatory constraints. For example, where funds are prohibited from using futures and other derivatives, ETFs have come to the rescue by providing much-needed flexibility.

ETFs are similar to futures, in that they are listed and are tradeable through the day in small lots. ETFs have all the advantages of futures without the administrative burden of margin calls and the requirement to roll contracts at maturity.

However, it was during the financial crisis that ETFs really came into their own and institutions realised how advantageous they can be.

In the summer of 2008 volatility spiked, market timing became crucial to the management of institutional core portfolios, and positions which investors had previously considered as medium- or long-term exposures suddenly became subject to stop losses and daily monitoring, with key market levels being breached on a regular basis.

The difference between the net asset value (NAV) of a classical indexed fund, which is typically calculated daily at the market close, and the implied (real-time) NAV of

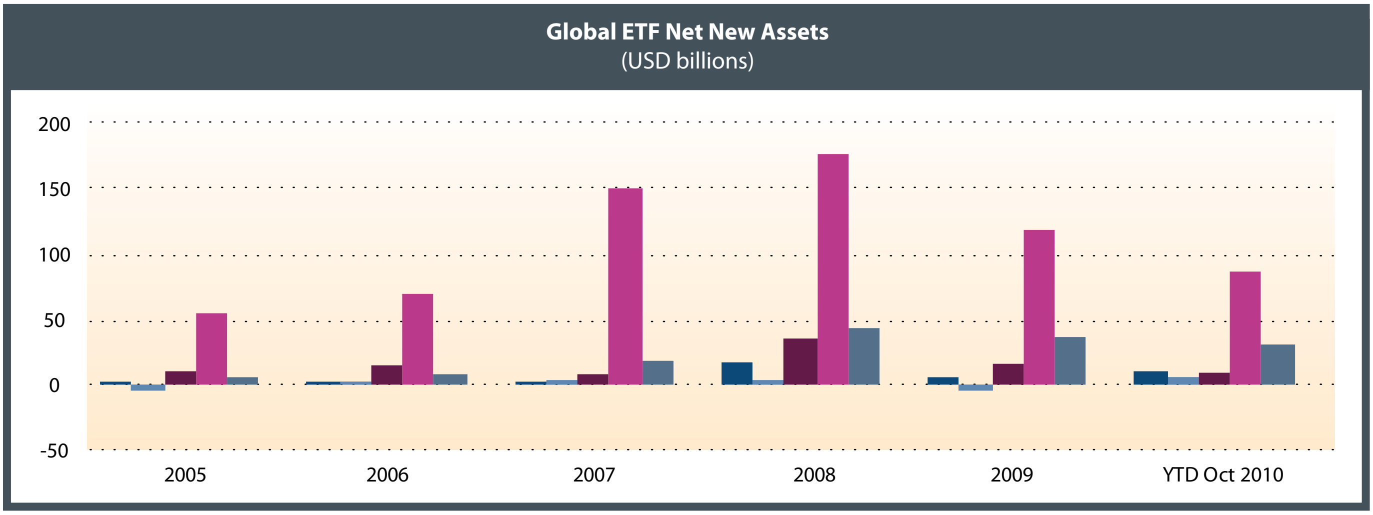
**Figure 1a**

**Global ETF Net New Assets**
(USD billions)

| Region | 2005 | 2006 | 2007 | 2008 | 2009 | YTD Oct 2010 |
|---|---|---|---|---|---|---|
| Asia Pacific (ex Japan) | 2 | 1 | 2 | 16 | 5 | 10 |
| Japan | -5 | 2 | 3 | 3 | -5 | 6 |
| Europe | 9 | 15 | 7 | 34 | 16 | 9 |
| US | 54 | 69 | 150 | 176 | 118 | 86 |
| Other | 5 | 8 | 18 | 43 | 36 | 31 |
| **Total** | **65** | **95** | **180** | **273** | **168** | **140** |

**Source:** Insight, 2010

**Figure 1b**




**Source:** Insight, 2010

Figure 1c

| Global Mutual Fund (ex-ETF) Net New Assets (USD billions) | | | | | | |
|---|---|---|---|---|---|---|
| Region | 2005 | 2006 | 2007 | 2008 | 2009 | YTD Oct 2010 |
| Asia Pacific (ex Japan) | 48 | 76 | 327 | 15 | 30 | -53 |
| Japan | 74 | 113 | 127 | 18 | 39 | 55 |
| Europe | 233 | 127 | -129 | -350 | 82 | -35 |
| US | 272 | 453 | 874 | 421 | -144 | -278 |
| Other | 318 | 335 | 235 | -245 | 91 | 172 |
| **Total** | **945** | **1103** | **1434** | **-141** | **98** | **-140** |

**Source:** Insight, 2010

an ETF became very important during this period. ETFs demonstrated just how transparent they were as investors could monitor fund values almost instantaneously instead of having to wait until the following day to find out how their portfolio had changed in value.

As a result, many European institutions started switching from index funds, for example, based on benchmarks such as the Euro STOXX 50, CAC 40, DAX and S&P 500, to ETFs offering the same exposure. ETFs clearly demonstrated during this period not only how transparent they were but also their ability to aid portfolio managers in controlling funds' risk levels.

Figure 1 illustrates that exchange-traded funds around the world attracted cumulative inflows of US$581 billion over the calendar years 2008, 2009, and the first ten months of 2010. Global mutual funds, meanwhile, suffered total outflows of US$183 billion over the same period.

In Europe, the comparison was even starker. European ETFs had cumulative inflows of US$59 billion between 31 December 2007 and 31 October 2010. But for the same period mutual funds saw net outflows of US$303 billion.

In summary, investors have been voting with their feet, leaving classical mutual funds. Some of the cash has gone elsewhere, but many have switched to exchange-traded funds.

The ETF market should grow and prosper even more with the advent of UCITS IV regulations and the ongoing tightening of risk management procedures following the financial crisis. UCITS IV, with its undemanding documentation requirements, will make ETFs even more accessible to European investors. A Key Investment Document (KID) in English will be sufficient for a fund to gain approval across Europe once it has been endorsed by one of the European regulators.

The KID in itself will not be enough to promote ETFs across the region, however. Further harmonisation efforts will be required, including the overriding of language barriers, local regulations and some of the fiscal obstacles inherent in the multicultural European environment. We expect regulatory and risk issues to be one of the key drivers of the ETF market's development in 2011.

The new bank capital regime, Basel III, will also probably increase the cost of funding and of providing seed money to new ETFs, making it harder for market makers and issuers to launch new products.

## The Outlook For ETFs

Today, European ETFs cover multiple asset classes, with the majority being exposed to straightforward, non-complex indices. The main users of ETFs are asset managers, who need pure, transparent tools as part of a diversified offering.

To what extent are ETFs going to cover new asset classes? And are they going to take new risks as issuers continue to seek to grow their market share?

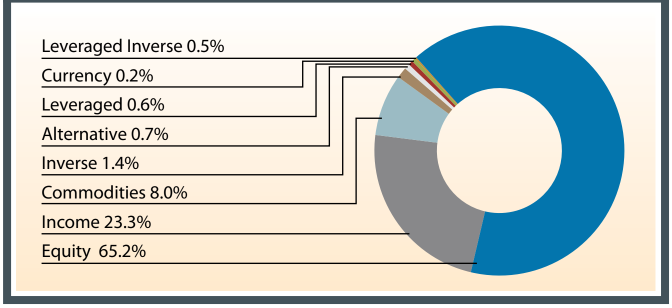
We believe the ETF market will continue to grow strongly, with new asset classes being made available to investors. In particular we expect to see growth in ETFs that offer exposures to particular market factors, ETFs based on fundamentally or equally weighted indices, and ETFs based on target volatility or risk indices.

ETFs in these newer asset classes will provide ever-increasing transparency in these market areas. They will also offer more variety than index funds, which have tended to expand into more "traditional" areas amongst the broad category of alternative investments: private equity, real estate, and commodities, for example.

We expect to see further innovation in ETFs covering single country bond and equity indices, with new funds being developed to offer exposure to size and style factors. And we expect to see more of the short strategy ETFs which will allow investors to get around the increasingly harsh constraints on short selling which will probably appear in 2011.

Figure 2

Asset Classes Covered By ETFs In June 2010




**Source:** BlackRock

Fund managers launching new ETFs will have to assess the risk/reward trade-off involved in these instruments and ensure that it, and profitability, can be precisely measured by investors.

Until recently, the ETF market has evolved uniformly across Europe's exchanges, without taking into account local risks and market specifics. But new launches will need to be more targeted, particularly if ETFs are to compete with index funds.

Despite the general growth of the ETF market over recent years, some earlier new product ideas have been left by the wayside. For example, some planned ETF launches in 2009 didn't get off the ground. These projected launches included actively managed ETFs, ETFs of ETFs and ETFs on alternative investment indices.

These challenges demonstrated that, although ETFs represent an efficient structure which is no doubt here to stay, they are not going to replace all mutual funds. Where ETF fund managers have attempted to do this they have often failed.

### Distribution Challenges

One key reason why ETFs are currently unable to replace actively managed funds is due to the distribution systems in place for funds. Distributors simply don't make enough money from ETFs to be motivated to promote and sell them to a wider audience. However, even here we are seeing some changes. Because of strong demand for ETFs from end-clients, distributors (such as financial advisers, fund platforms) have taken another look at them and in some cases are providing funds of ETFs which target a certain investor profile. These have been more successful than direct sales of individual ETFs, as they can justify an extra fee for the distributor.

Another challenge for ETFs is strong resistance by the majority of fund managers, who are concerned that ETFs could cannibalise their actively managed fund businesses. Since only three companies dominate the ETF market most fund management companies are not motivated to see ETFs take over, whatever the demand from clients might be. The only exception to this rule seems to be from family offices and private banks, which are happy to promote ETFs to their clients.

### Market-Making Feasibility Both At The Operational And Profitability Levels

Another future challenge for ETFs is that market makers are reducing their commitments to servicing ETF underlyings. This is due to the cost of funding, new regulatory asset-liability management (ALM) rules, the underlying not always being very liquid, and the burdens of operating multiple cross-listings.

With some ETFs now being based on actively managed or strategy indices, the situation for market makers is complicated even further by the relative complexity of these underlying indices. This presents a challenge to traders, who are tasked with keeping funds' prices in line with net asset value and minimising tracking error.

### Liquidity And Transparency Issues

At a basic level, ETFs need to meet three very important standards. They need to offer liquidity, transparency and the ability to accurately mimic or represent an index.

In order to fulfil UCITS III compliance, diversification is essential and funds must follow the 35/20/40 rules. No individual constituent should represent more than 20% of a fund's net asset value, a figure that can be relaxed at the regulator's discretion to 35% when an index strategy is being followed.

But actively managed funds or indices based on certain active strategies may not comply with these key diversification rules, and would therefore not be eligible to be considered ETFs by the regulator.

Moreover, as mentioned before, ensuring that active funds track their indices would present serious challenges to market makers, suggesting that larger tracking error could result.

Specific solutions have been proposed in certain cases to address these concerns. For example, hedge fund exposure or alternative investment strategies based on an index that consists of actual portfolios run on a "managed account", operated by the ETF issuer, can offer a much more transparent way of gaining exposure to this area of the market than via traditional hedge fund indices, many of which cannot be invested in directly in any case.

### Tracking Error And Risk Control

If the transparency of ETFs started to decrease, such funds would no longer prove so useful in helping to manage investors' risks. This function was one of the key reasons for the popularity of ETFs during and after the financial crisis.

The use of ETFs as vehicles enabling accurate strategic and tactical allocation would be difficult if these funds couldn't deliver their main objective, which is to track eligible indices with tight tracking error.

### In Conclusion

Although the ETF market has grown significantly, to the detriment of actively managed funds, and statistics from the past two years show a major shift from active to passive vehicles in Europe, we believe that a simplistic division of the fund management industry into active and passive is now largely irrelevant.

This is because the architecture of asset management has changed so radically and the role of global allocation and LDI (liability-driven investing) has increased tremendously.

Instead of a simple choice between passively or actively managed funds, we are seeing a number of traditional asset managers using ETFs as yet another tool to provide exposure to regions, styles, and asset classes. ETFs have proven their value as very efficient tools for this type of approach.

Therefore ETFs do still have an exciting future, but it's perhaps not the one imagined a few years ago. Instead of competing with each other, active and passive managers are working together to create new types of funds.

# ETFs—The Changing Landscape

More and more traditional investment products are reemerging as ETFs

By Deborah Fuhr

The exchange-traded fund (ETF) market landscape will continue to evolve during 2011 and beyond, as we see more products from traditional active asset managers and alternative asset class exposures becoming available to 'mainstream' retail and institutional investors, through standardised and regulated fund structures such as UCITS (Undertakings for Collective Investments in Transferable Securities) in Europe. Hedge funds have historically been difficult for many investors to access with the high minimum subscription levels and maximum investor limits, but hedge funds are now noticing the growth and appeal of ETFs, which are easy to access, but which have powerful distribution networks. Therefore, we expect to see more hedge funds looking to create ETFs with their own funds as the underlying exposure, in an effort to broaden their distribution capabilities.

This expansion will offer more investors the ability to access the asset class, and to do so in small sizes with daily liquidity. However, it will also make it challenging for them to understand what they are investing in, compared to the historical daily transparency of the underlying portfolio in low-cost index-based exposures for which ETFs have become known.

It will be important in the coming years to ensure that as new generations of ETFs come to market, investors are educated about their structures and mechanics, particularly when they deviate from the traditional definition of ETFs. We classify the traditional ETF as an exchange-listed, open-ended, liquid fund with secondary and primary in-kind creation and redemption (with support from market-makers and other liquidity providers), with real-time indicative net asset value (NAV). A traditional ETF is also transparent, where the underlying portfolio is disclosed on a daily basis.

Indications suggest that many larger institutions are now embracing ETFs, since their product development focus has shifted towards multi-asset class investing. ETFs help implement this objective, since the ability to deliver alpha (outperformance) across all segments of all asset classes (i.e. equities, fixed income, commodities) is not achieveable by most firms.

It has become hard for participants in the financial markets to ignore a product category which broke through the US$1 trillion assets under management milestone for the first time at the end of December 2009. Today, there is a growing fan club that cites ETFs as one of the greatest financial innovations in the past two decades.

## Factors To Consider When Selecting An ETF

**Objectives:** assess your financial goals.

**Strategy:** look for the right ETF to complement your portfolio. Ensure you read the prospectus and other documentation published by the ETF provider prior to investing.

**Risks:** the value of your investment may go up or down. Check the specific risks (i.e. political, economic and currency risks when investing in an ETF providing exposure to an emerging market, country or region) and tax implications.

**The index:** even ETFs with very similar sounding names can be based on very different constituents. Index providers have different methodologies, which in turn will determine the holdings, weights and rebalancing frequency. All these will result in different risk and reward characteristics for the end-investor. Understanding the index is an important step in the process.

**The structure:** regulatory changes and innovations in structures have seen Exchange Traded Products (ETPs) move beyond the conventional open-ended fund structure of an ETF. Additionally, open-ended funds can, in many jurisdictions, embrace the use of swaps and other derivatives, which may change the risk characteristics and may limit the product's transparency compared to traditional physical ETFs, particularly in relation to the fund's list of holdings. The size of the fund, as measured by the assets under management, will often dictate how much certain investors can invest in an ETF.

**Total costs:** the fund's Total Expense Ratio (TER), not just the Management Expense Ratio (MER), is a major consideration when comparing costs between ETFs. Trading costs, tracking risk, registrations, trading currency, dividend withholding rates and securities lending within the fund and lending of the ETF should all be considered.

**Liquidity:** ETFs afford investors two forms of liquidity. The first is via the primary market, whereby an authorised participant purchases the underlying basket of securities in the local market and deposits the basket 'in kind' into the ETF, creating more shares in that ETF. This creation/redemption process means that the liquidity in the ETF is driven by the liquidity in the underlying securities. The second source of liquidity is through market participants' bid and offer prices in the secondary market.

**ETF provider:** the type and amount of information provided on ETFs, index construction and methodology, and tax and index management knowledge varies based on the size, scale and expertise of the provider. The same applies to the level and type of support provided to investors, intermediaries and brokers.

## How Investors Are Using ETFs

The motivations for using ETFs have expanded. Examples of strategies now being implemented include managing asset allocation, taking tactical positions and increasing diversification. Investors are also using ETFs to take negative positions in asset classes, either to remove existing unwanted exposure or to express a negative view.

This expansion has been fuelled by the increase in the range of asset classes accessible through ETFs. Moreover, the introduction of ETFs covering emerging markets, commodities, currencies and property has allowed investors to access some of the best performing asset classes of the past few years. The growth in beta investments in recent years has been driven by a number of factors, including:

**Access:** beta products are providing access to an expanding range of markets and asset classes, and through a much wider range of instruments.

**Diversification:** increasingly investors are widening the scope of their investments and looking for exposure to new asset classes and markets.

**The changing role of beta:** as investors are altering the way they view their investment objectives, alpha and beta decisions are being combined in different ways.

The range of beta tools available to investors has also grown with traditional index funds, index futures, OTC derivatives and ETFs. ETFs share many characteristics with traditional index funds. Importantly, they also offer intraday liquidity and enhanced flexibility, allowing investors to take both long and short positions.

Many European investors prefer ETFs that are UCITS funds from a regulatory and dividend withholding point of view. Some European investors are only allowed to invest in UCITS funds. For European and Asian investors, the effective dividend withholding tax rate may be higher when investing in US-listed ETFs as they may suffer dividend withholding within the ETFs, as well as on dividends paid out of the ETF.

## Basic ETF Structures

ETFs have distinctive features. Each ETF is designed to track a specific index. They provide access to investment styles, asset classes, markets and different sectors. They are structured as open-ended funds which are domiciled and registered in many countries around the world. The assets of ETFs are held by custodians in a ring-fenced structure.

Many ETFs purchase the underlying securities in the index with the majority fully replicating their underlying index. A number of physically replicated ETFs have the capacity to employ optimisation and sampling techniques. These ETFs may exclude certain securities and deviate from their benchmark constituent weights, which could lead to tracking error.

The open-ended structure typically allows funds to lend stock, which may generate extra income. In addition, these funds can hold other securities and financial instruments, including cash and equivalents and futures. Dividends are typically paid out quarterly, semi-annually or annually, although some ETFs do reinvest dividends in the fund.

In Europe, most ETFs now utilise a total return swap plus a basket of securities to track their indices. The basket of securities complies with the diversification rules under UCITS III rules.

## Challenges

ETFs have been embraced because in a 'back to basics' environment, they provide transparency on the portfolio's holdings, offer daily creation/redemption, have multiple market makers, have real-time indicative NAVs, and so on. But now we risk moving away from this product and description that have been increasingly embraced by retail and institutional investors and find ourselves at an important crossroads.

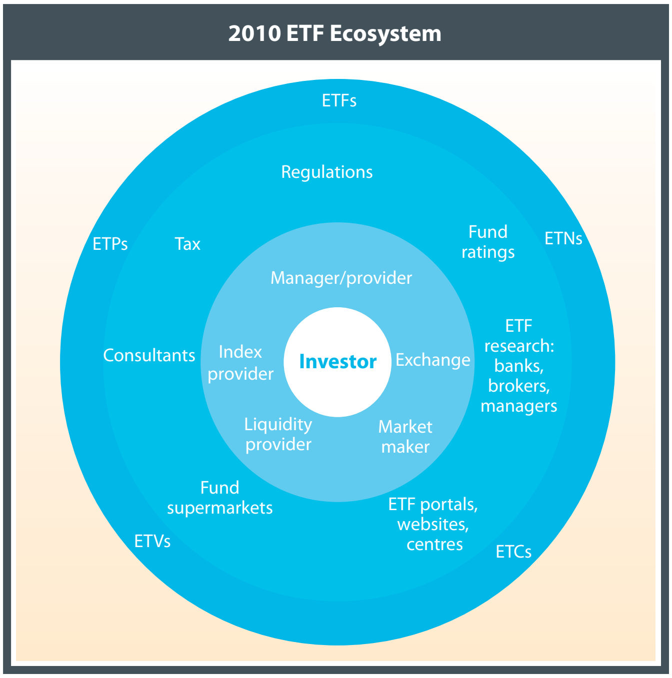
The popularity of ETFs is increasingly attracting the attention of other industry participants and regulators. Many organisations are hoping to find a way to make money from the growing ETF industry: ratings companies, consultants, fund platforms and researchers, for example. These new participants, together with potential tax and regulatory changes, were the major new forces impacting the traditional ETF ecosystem during 2010.

Investors need to be aware of the various biases that are inherent in many of these new services. Many are focused only on the United States listed ETFs; others require the ETF manager/provider to pay to have their ETFs represented/rated; some will require the ETF to be over a specific size and/or be at least a certain age. These biases may lead such services to miss factoring in basic requirements for investors, such as ETF structure, domicile, registration and tax reporting, to name a few important criteria.

The impact of regulatory and tax changes could be significant for the ETF industry. Many legal initiatives with a potential impact on the sector are under review. These include: Europe's Directive on Markets in Financial Instruments (MiFID II); the latest version of the Undertakings for Collective Investments in Transferable Securities (UCITS IV); the Retail Distribution Review (RDR) in the UK; the Alternative Investment Fund Managers Directive (AIFMD); possible changes to the US Qualified Interest Income (QII) regime; Packaged Retail Investment Products (PRIPs); the Foreign Account Tax Compliance Act (FATCA); and the Key Information Document (KID), leading to considerable uncertainty.

Regulators around the world are looking at rules regarding short selling, the use of derivatives, the use of commodity futures and the transparency of fund fees, for example. Many of these documents are in the consultation phase and the specific guidelines for implementation have not yet been defined.

**Figure 1**




**Source:** : Global ETF Research and Implementation Strategy Team, BlackRock.

The ETF industry is at an important crossroads. We are seeing funds which do not provide transparency regarding their underlying portfolios, do not offer in-kind creation and redemption and do not have real time indicative NAVs calling themselves ETFs. Investment products which are not even funds are being called ETFs.

Now that the industry accounts for over US$1 trillion in assets under management, product developers are working hard to find ways to put structured products, hedge funds and active funds into ETFs. Agreeing definitions for ETFs, ETNs, ETCs, ETVs and ETPs is an important need for the industry.

## Global Statistical Update, End Of November 2010

At the end of November 2010, the global ETF industry had 2,422 ETFs with 5,413 listings and assets of US$1,231.0 billion, from 133 providers on 46 exchanges around the world.

YTD assets have increased by 18.8% from US$1,036.1 billion to US$1,231.0 billion. This is greater than the 2.2% increase in the MSCI World Index in US dollar terms.

The top 100 ETFs out of 2,422 account for 63.2% of global ETF Assets Under Management (AUM). 1,524 ETFs have less than US$100 million in assets; 1,242 ETFs have less than US$50 million in assets and 434 ETFs have less than US$10 million in assets.

Globally, iShares is the largest ETF provider in terms of both number of products (468 ETFs) and assets (US$550 billion), reflecting 44.7% market share; State Street Global Advisors is second with 113 products, assets of US$171 billion and 13.9% market share; followed by Vanguard with 65 products, assets of US$141 billion and 11.5% market share, as at the end of November 2010.

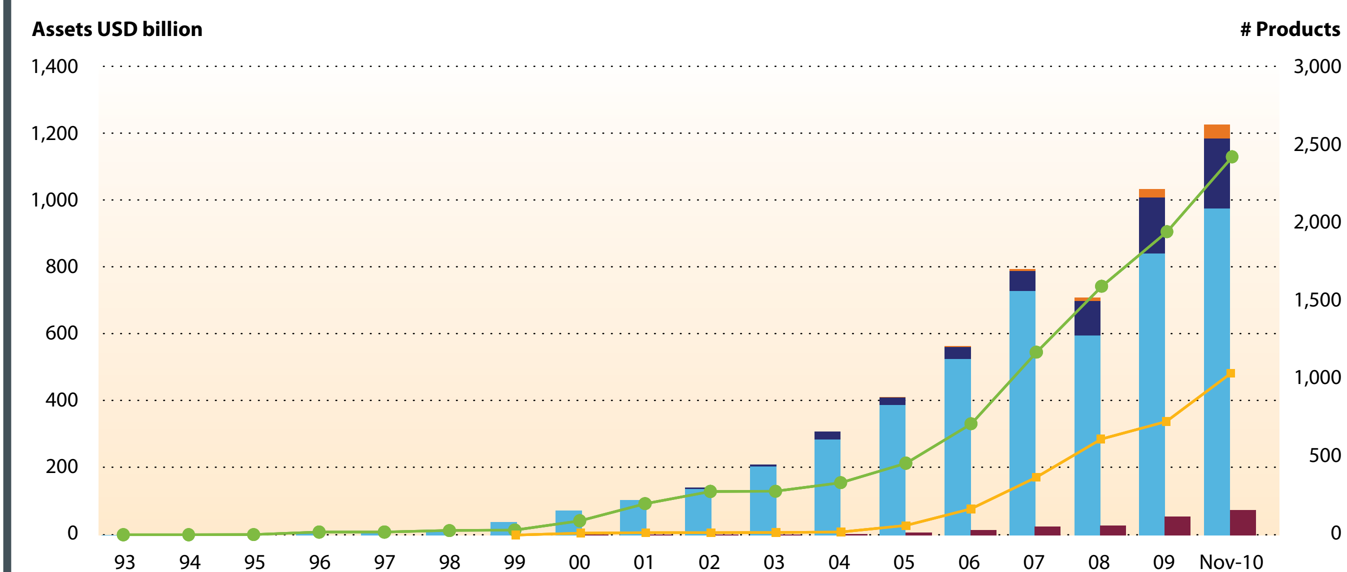
The top three ETF providers, out of 133, account for 70% of global ETF AUM.

Globally, net sales of mutual funds (excluding ETFs) were minus US$140 billion, while net sales of ETFs were positive US$140 billion during the first ten months of 2010, according to Strategic Insight.

YTD, the number of ETFs has increased by 24.7% with 530 new ETFs launched while 51 ETFs were delisted. The number of ETFs listed in Europe surpassed the United States in April 2009. As at the end of November 2010, Europe had 1,052 ETFs listed, compared to 893 ETFs listed in the United States.

**Figure 2**

**Global ETF and ETP asset growth, as at end November 2010**




| Assets USD billion | 97 | 98 | 99 | 00 | 01 | 02 | 03 | 04 | 05 | 06 | 07 | 08 | 09 | Nov-10 |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| ETF total | 8.2 | 17.6 | 39.6 | 74.3 | 104.8 | 141.6 | 212.0 | 309.8 | 412.1 | 565.6 | 797.0 | 711.4 | 1,036.1 | 1,231.0 |
| ETF equity | 8.2 | 17.6 | 39.6 | 74.3 | 104.7 | 137.5 | 205.9 | 286.3 | 389.6 | 526.5 | 730.2 | 596.8 | 841.6 | 975.8 |
| ETF fixed income | – | – | – | 0.1 | 0.1 | 4.0 | 5.8 | 23.1 | 21.3 | 35.8 | 59.9 | 104.0 | 167.0 | 209.0 |
| ETF commodity | – | – | – | – | 0.0 | 0.1 | 0.3 | 0.5 | 1.2 | 3.4 | 6.30 | 10.0 | 25.6 | 41.8 |
| ETP total | – | – | 2.0 | 5.1 | 3.9 | 4.1 | 6.3 | 9.3 | 15.9 | 32.5 | 54.6 | 61.2 | 119.7 | 161.4 |
| **ETF/ETP total** | 8.2 | 17.6 | 41.6 | 79.4 | 108.7 | 145.7 | 218.3 | 319.1 | 428.0 | 598.1 | 851.3 | 772.3 | 1,155.8 | 1,392.4 |
| # ETFs | 21 | 31 | 33 | 92 | 202 | 280 | 282 | 336 | 461 | 713 | 1,171 | 1,594 | 1,943 | 2,422 |
| # ETPs | – | – | 2 | 14 | 17 | 17 | 18 | 22 | 64 | 170 | 371 | 616 | 729 | 1,039 |
| **# ETF/ETP total** | 21 | 31 | 35 | 106 | 219 | 297 | 300 | 358 | 525 | 883 | 1,542 | 2,210 | 2,672 | 3,461 |

**Source:** Global ETF Research and Implementation Strategy Team, BlackRock, Bloomberg.

# News

### STOXX Debuts Global Index Family

STOXX announced in February that it is launching a new family of over 1,200 indices covering the global equity markets. The index provider has undertaken a significant expansion of its international business since ties with former part-owner, Dow Jones, were severed in late 2009.

The new STOXX global index family covers global markets, the broad regions of the Americas, Europe, Asia and the Pacific, as well as the subregions of Latin America and BRIC (Brazil, Russia, India and China).

All STOXX's broad regional indices are broken down into a comprehensive set of supersector indices that follow the industry classification benchmark (ICB). Blue chip indices are also available for individual countries.

To complement the new global index family, STOXX has launched several new strategy indices. These cover both regions and countries, and include risk-based indices and several short and leveraged indices.

The universe for the whole family of indices is called the STOXX global TMI and covers more than 95% of the world's free-float market capitalisation. All indices are float-adjusted and available in price, net and gross return versions in both euro and US dollars.

The component weightings of all blue chip indices are capped at 10% of each index's total free-float market capitalisation.

STOXX also introduced a new classification system, based on four different categories of index offerings. The first category includes all standard equity benchmark and blue chip indices, such as the new STOXX global index family, the Euro STOXX 50, STOXX Europe 50 and STOXX Europe 600 indices.

The second category includes all indices that replicate investment strategies and themes, and will be called STOXX+. Indices that fall into this category include the STOXX optimised and STOXX strategy indices. The third category, branded as iSTOXX, will comprise less standardised index concepts that take into account individual customer and market requirements. The final category, STOXX customised, covers indices that are specifically developed for the company's clients and are not STOXX-branded.

### Indices Indicate US Housing Slump

US home values slid about 4% in the last quarter of 2010 compared with the previous year, the worst performance since mid-2009, the S&P/Case-Shiller Home Price Index showed, as of the end of 2010.

The December Case-Shiller report, released in late February, showed that home prices are hovering around their 2009 trough in most regions. In 11 of the 20 cities surveyed, prices have even forged new lows in a trend that has many analysts suggesting more downside is still to come.

The US housing market was at the centre of the credit crisis that triggered the worst economic downturn the US has seen since the 1930s. The latest Case-Shiller data add fodder to concerns that US economic growth is still wavering and that the global economic recovery remains on shaky ground amid persistent unemployment and, more recently, rising oil prices.

Both monthly composite indices showed that home values dropped last year compared with 2009. What's more, the number of cities forging new lows since their 2006-2007 peaks has increased in each of the past three months. Year-over-year, only San Diego and Washington, DC, saw any improvement, with 12-month gains of 1.7% and 4.1%; both were up slightly during the fourth quarter, again the only city indices to show positive returns.

For both the 10- and the 20-City composites, December marked the seventh straight month that values moderated from their previous year's levels. They are now more than 30% below their mid-2006 highs, with average home prices across the country back to levels not seen since the beginning of 2003.

All in all, the 10-City and 20-City composites are just 3.9% and 2.3% above their 2009 trough levels, compared with much higher readings last July of 7.9% and 6.9%, respectively.

### ETF Assets May Hit US$2 Trillion By 2013

Assets in exchange-traded products are on track to increase 20% - 30% a year around the world over the next three years, and could hit US$2 trillion in the US by late 2013, according to BlackRock.

Globally, ETP assets could reach US$2 trillion by early 2012, the New York-based money management firm said in a report released in early February. It said 3,503 products from 168 providers were trading on 50 exchanges around the world at the end of 2010. Assets totalled US$1.482 trillion, compared with US$1.156 trillion in 2009.

Factors driving the expansion include the growing number and types of indices covered; more active marketing of ETFs by online brokers; greater involvement by fee-based advisors, and the growing number of exchanges planning to launch new ETF trading segments, Deborah Fuhr, BlackRock's global head of research and implementation strategy, noted in the report. The report also cited regulatory changes in the US, Europe and emerging markets that allow funds to make larger allocations to ETFs.

Last year, total assets in US ETPs topped the US$1 trillion mark for the first time. While most of those assets are in ETFs, the total ETP tally includes other structures, such as trusts, partnerships, commodity pools and notes.

### Research Affiliates Partners With Russell On Indices

In late February, Research Affiliates and Russell Investments launched a series of 24 "alternative beta" fundamental indices that use measures of company size, rather than market capitalisation, to weight their components.

The new line-up of indices marks Russell Investment's latest foray into alternative indexing: the firm has partnered with Indxis and Axioma to create other non-traditional index families.

Research Affiliates and Russell Indices inked a deal last June to develop the new Russell Fundamental Index Series. It's the second major partnership for Research Affiliates, which created a pioneering alternatively weighted line of indices with the London-based financial data and analytics firm, FTSE, in 2005.

The new Russell products use three weighting criteria: adjusted sales, retained operating cash flow, and dividend payouts plus share buybacks. By contrast, the FTSE-RAFI family, which forms the basis for ETFs from Invesco PowerShares, uses four criteria: book value, cash flow, sales and dividends.

Despite its growing line-up of alternative indices, Russell still believes that traditional market-cap-weighted products should play a central role in ETF investing, stating in a press release that cap-weighted indices are the "best-suited" for benchmarking and are suitable as the underlying indices for investable products.

Alternative indexing is a small but growing corner of the ETF world. Since the first FTSE-RAFI products began trading in 2005, the market for non-market-cap-weighted funds has grown to US$60 billion.

## INDEXING DEVELOPMENTS

### Russell Launches Stability Indices

Russell Investments in early February rolled out a series of indices that zooms in on "stability," which it characterises as a third dimension of investment style that blends various fundamental factors with market volatility.

On the one hand, stability includes variables such as leverage, return on assets and earnings at a company level, the US-based company said in a press release. That metric is then combined with both short- and long-term stock market volatility indicators to track a firm's sensitivity to changing economic or credit cycles.

Unlike growth and value style factors, stability doesn't seek to determine whether a company has a low valuation or whether it's likely to see future growth. All in all, the so-called three dimensions of style are complementary and are designed to give investors "detail and specificity," the company said on its website.

The line-up of stability indices includes the US Large-Cap Russell 1000 Defensive and Russell 1000 Dynamic, the US Small-Cap Russell 2000 Defensive and Russell 2000 Dynamic, and the US Broad Market Russell 3000 Defensive and Russell 3000 Dynamic indices.

The new stability benchmarks, which are designed with both passive

and active managers in mind, are created by splitting existing Russell indices in half based on quality and volatility characteristics. What the company deems as the more "stable" half becomes the Defensive Index, with the less stable half called the Dynamic Index. They are cap-weighted.

The securities in the dynamic mix not only tend to be more exposed to risk, they also tend to outperform their "defensive" counterparts in times of fast upward market action. Those in the defensive portfolio perform better in weak market environments, the company said.

### Markit iTraxx Europe Rules Updated

Financial information services company Markit has made a number of changes to the rules applying to Markit iTraxx Europe and Markit CDX North America.

The changes, which came into effect when series 14 rolled into series 15 on 21 March, relate to the company's credit default swap indices: Markit iTraxx Europe, Markit iTraxx Europe Crossover, Markit CDX.NA.IG and Markit CDX.NA.HY. Rather than using dealer poll data to determine which entities would be included, the indices will now base such decisions on CDS trade volume data from The Depository Trust & Clearing Corporation's (DTCC) Trade Information Warehouse, as well as on Markit iBoxx Liquid High Yield sector weights.

The second major change is that financial entities are now excluded from Crossover, unless they have a subsector classification of Speciality Finance. In addition, entities included in Markit iTraxx Europe are now required to meet more stringent liquidity requirements than previously: new entities will need to be more liquid than 75% of existing constituents. The previous rules had stipulated 50%.

The changes resulted in a number of changes to the indices' constituents, with Crossover seeing the biggest impact: the high yield index is now linked to 40 companies, in comparison to 50 under the old rules. This is simply because the new requirements mean that fewer companies now fulfil the index's requirements.

Reducing the size of the index does not come without implications. With the index now containing fewer companies, any individual names under stress could now have a bigger impact on the entire index than previously.

### HKSE Debuts Volatility Index

Hang Seng Indices Co. Ltd. debuted the HSI Volatility Index, or VHSI, in February. The new index is actually based on the same methodology as the well-known CBOE Volatility Index, or VIX; HSI licensed the methodology from the US options exchange and S&P, according to a press release.

Like the VIX, the VHSI seeks to measure the volatility of the underlying stock market based on the bid/ask quotes of the benchmark index's options – however, instead of using S&P 500 options as the VIX does, the VHSI uses options tied to the Hang Seng Index. The options trade on Hong Kong Exchanges and Clearing Ltd.

According to the press release, CBOE and S&P have partnered to license the VIX methodology and calculation to exchanges around the world, such as the NYSE Euronext and exchanges in Taiwan, India, Australia and Canada.

### Rogers Brands New Resources Index

An announcement in February highlighted the recent collaboration among CITIC Carbon Assets Management, Banco Bilbao Vizcaya Argentinaria and famed commodities investor James Rogers.

Rogers and CITIC worked together to create the Rogers Global Resources Equity Index family, which targets global natural resources companies. BBVA, meanwhile, has licensed the index for use underlying investable products.

The index series, according to the press release, covers both traditional and "alternative" natural resources. Reuters reports that the main index has 200 components falling into five main buckets: agriculture, forestry, energy, metals & mining and alternative energy. The original press release notes that the family also includes an equal-weighted investable "core" subindex.

Components are chosen using quantitative and qualitative factors, with liquidity, business activities, business stability and consumption patterns all playing a role, the press release said.

### STOXX Launches Europe's First Islamic Indices

STOXX Limited has announced the launch of three Shari'ah-compliant indices. The STOXX Europe Islamic Index, together with two blue-chip sub-indices, STOXX Europe Islamic 50 and EURO STOXX Islamic 50, will measure the performance of a selection of Shari'ah-compliant companies from the STOXX Europe 600 Index.

In order to be eligible for inclusion in the Islamic Index, companies must meet a number of requirements, such as not having any significant involvement in non-Shari'ah-compliant activities including tobacco, alcohol, advertisement, entertainment and music production. No more than 5% of the company's total income can be derived from interest and activities that are not Shari'ah compliant. Meanwhile, the ratio of non-Shari'ah compliant debt to the greater of the company's market cap or total assets must not exceed 33%, nor can the total ratio of interest bearing assets to the company's total assets or total market cap exceed 33%.

According to Harmut Graf, CEO of STOXX, the new indices have been introduced in order to meet demand among market participants who are increasingly looking to invest in accordance with their religious beliefs, or to participate in the performance of companies that behave responsibly.

An independent Shari'ah Supervisory Board comprising three Islamic finance specialists has been set up to oversee the screening process.

### MSCI, S&P Leave GICS Unchanged

The annual 2010 review of the Global Industry Classification Standard (GICS) developed and used by Standard & Poor's and MSCI did not result in any changes to the structure in 2011, according to an announcement issued in March.

The purpose of the annual review is to allow the classification structure to continue to evolve along with the global stock market in the interests of accurate representation. Each year MSCI and S&P review the standard and solicit comments from market participants. However, this year's process did not identify any necessary adjustments, the press release indicated.

Launched in 1999, GICS' four-tiered structure covers ten sectors, 24 industry groups, 68 industries and 154 sub-industries.

### Inflation-Linked Indices Announced By MTS

Two inflation-linked indices have been launched by fixed income trading market facilitator MTS: EuroMTS Inflation-Linked (IL) Investment Grade Index and MTS Italy BTPi – ex Bank of Italy Index. The two new indices are calculated and published in real-time from 9:00 to 17:30 CET, with daily fixings at 11:00 CET and 17:30 CET.

The EuroMTS IL Investment Grade Index is composed of bonds issued by Eurozone governments and listed on MTS. In order to be eligible for the index, bonds must be linked to Eurozone or domestic inflation and should have been rated investment grade by at least two principal rating agencies.

Meanwhile, the MTS Italy BTPi ex-Bank of Italy Index includes all MTS-listed inflation-linked government bonds issued by the Italian government.

### MTS Adds Eight Sub-indices To EuroMTS AAA Government Index

Adding to its existing EuroMTS AAA Government All-Maturity Index, MTS has created the following sub-indices:

- EuroMTS AAA Government 1-3 years
- EuroMTS AAA Government 3-5 years
- EuroMTS AAA Government 5-7 years
- EuroMTS AAA Government 7-10 years
- EuroMTS AAA Government 10-15 years
- EuroMTS AAA Government 15+ years
- EuroMTS AAA Government 15-25 years
- EuroMTS AAA Government 25+ years

These sub-indices are composed of Eurozone government bonds which are AAA-rated by at least three major credit rating agencies and which have over €2 billion outstanding. The indices are calculated and published in real-time from 9:00 to 17:30 CET, with daily fixings at 11:00 CET, 16:00 CET and 17:30 CET.

According to MTS, the indices have been created to respond to requests from investors for high-quality benchmarks to match the duration of their portfolios.

### Treasury BondSpot Poland Launches Treasury Bonds Index

Treasury BondSpot Poland, an electronic platform for trading Polish Treasury securities, has launched Poland's first official Treasury bonds index, TBSP.Index.

The index portfolio consists of Polish zloty-denominated zero coupon bonds and fixed rate bonds and the portfolio's composition is due to be revised on a monthly basis. Twelve series of fixed rate bonds and four series of zero coupon bonds were included in the first index portfolio.

A press release said that the index aims to give investors a universal market tool and a benchmark for measuring investment decisions.

### BarCap Debuts iCrystal Index

In early March, Barclays Capital launched the Barclays Capital iCRYSTAL Index, the latest member of the Barclays Capital CRYSTAL index series, which targets the differences between US and European monetary policy cycles. The new index adds an element of leverage to the original index methodology.

According to the Barclays Capital website, the main CRYSTAL methodology adopts currency positions based on the tightening and easing biases in euro and US dollar short-term rates. When both currencies exhibit the same directional bias—whether it be tightening or easing—the index adopts a "directional rates position" in the currency displaying the strongest signals; when the two currencies show signs of opposing biases, the index methodology adopts a spread position.

The iCRYSTAL index combines the original methodology with leveraged exposure based on the strength of the bias signal. The multiple can range from -1 for the weakest signals to 1 for the strongest signals, the website said.


Strategy indices – where an investment strategy is embedded in the fund's benchmark – currently underlie only 7% of Europe's ETFs.

### S&P Debuts "Dynamic Roll" Sector Indices

In mid-February, S&P debuted the S&P GSCI Dynamic Roll Sector indices. The new sub-indices include the energy, agriculture, industrial metals, precious metals and livestock sectors.

S&P's Dynamic Roll methodology allows the indices to roll into the optimal futures contract rather than just rolling into the front-month contract, as is the case with traditional commodities futures indices, including the S&P GSCI. In times of backwardation, the indices will roll into the front-month contracts, but roll into later-dated contracts when their respective sectors are in contango.

Contango is a regularly occurring phenomenon in the commodities market, but it's becoming more common to see indices that are designed to combat its effects via rules-based methodologies.

### FTSE Teams Up For China A-Shares Index

FTSE and Value Partners Index Services Ltd. rolled out the FTSE Value-Stocks China A-Share Index in February.

The index targets value stocks from the China A-Shares stock market, selecting them based on P/E ratio, dividend yield, return on equity, operating profit margin, leverage and what the firms term "a unique contrarian factor." The final criterion is included in order to steer the index away from stocks given consensus "buy" ratings by analysts, which tend to underperform the market, according to FTSE's website.

The FTSE-Value Partners collaboration—which combines Value Partners' value investing methodology with FTSE's index methodology framework—had already produced three indices covering China, Korea and Taiwan; the China A-Shares market is unique because it is closed to foreign investors unless they possess a Qualified Foreign Institutional Investor (QFII) designation.

### Structured Solutions Unveils More Indices

February saw the launch of a bevy of new indices from European index provider Structured Solutions AG.

The most interesting is perhaps the Solactive E7 Index, which covers the largest stocks in what some have termed the "Emerging 7"—a sort of twist on the G7 concept, the press release notes. The countries included in this list are the four BRIC countries and Indonesia, Turkey and Mexico, and the index includes 28 stocks, comprising the four largest companies from each country. The new benchmark underlies an index certificate issued by Deutsche Bank.

The Solactive Copper Mining Index is a 10-component, equal-weighted global index targeting leading copper mining companies; it underlies a certificate issued by Bank Vontobel. Meanwhile, the Solactive Gold and Silver Developer Index has 15 components and focuses on junior miners; Société Générale has issued a certificate tracking the index.

Two other narrow-based indices cover internet-based social networking companies and the German automobile sector; they underlie certificates issued by SocGen and Deutsche Bank, respectively.

### New DJ Index Targets EM Infrastructure

Dow Jones Indices and Brookfield Asset Management kicked off March with the rollout of the Dow Jones Brookfield Emerging Markets Infrastructure Index. Component companies are domiciled in emerging markets and own infrastructure assets, a press release said.

The two firms have collaborated to create a full lineup of global infrastructure indices. The press release describes "infrastructure assets" as those connected with "airports, toll roads and rail; ports; communications; electricity transmission and distribution; oil and gas storage; transportation; and water." Component companies in the emerging markets index must generate at least 50% of their estimated cash flows from those assets in order to be eligible for inclusion, in addition to meeting size and liquidity requirements.

The index has a modified float-adjusted market-capitalisation weighting scheme that resets the weights of any outsized components back to 10% quarterly, the press release said. At launch, it had 71 components.

### BarCap Debuts EM Currency Indices

In late February, Barclays Capital trotted out two brand-new currency indices targeted at the institutional investor market.

The Barclays Capital Dynamic Long/Neutral Global Emerging Markets Index and the Barclays Capital Dynamic Long/Short Global Emerging Markets Index (Dynamic GEMS) are designed to address the tendency of emerging markets currencies to experience abrupt declines during market shocks, according to a press release.

Based on the levels of risk exhibited by emerging market currencies as measured by the Barclays Capital EM FX Risk index, the two Dynamic indices adjust their positions in 1-month cash-settled FX forward contracts. The long/short index takes entirely long or entirely short positions in its component currencies with respect to the US dollar, while the long/neutral index takes entirely long or entirely neutral positions, the company's website said.

The indices cover the currencies of Argentina, Brazil, Chile, Colombia, Mexico, Hungary, Poland, Russia, Turkey, South Africa, Indonesia, India, South Korea, the Philippines and Thailand.

### Citigroup Bond Index Targets MENA Region

The Citigroup Middle East and North Africa Broad Bond Index launched in early February, according to an index guide from Citigroup.

The new benchmark covers Algeria, Bahrain, Djibouti, Egypt, Ethiopia, Iraq, Israel, Jordan, Kuwait, Lebanon, Libya, Morocco, Oman, Palestinian Territory, Qatar, Saudi Arabia, Tunisia, United Arab Emirates and Yemen. At launch, the largest country weightings were in Qatar, at 31.09%; the UAE at 30.93%; and Lebanon at 16.23%.

The index's components include investment-grade and high-yield bonds that are denominated in US dollars and issued by corporations or governments. Components must have a minimum outstanding value of US$250 million and be rated at least a C by S&P or Moody's.

The index covered 107 individual issues at launch.

### BarCap Rolls Out Asia-Pacific Convertibles Index

Barclays Capital rolled out the Barclays Capital Asia Pacific Convertibles Index in late January, according to a press release. The index tracks convertible securities in the Asia Pacific region that are "actively quoted by multiple market makers," the release said.

Geographically, sub-indices are available for both Japan and the Asia Pacific ex Japan region, while other sub-indices target factors such as credit quality and sector.

The new index joins two other Barclays indices that cover the convertibles markets in the EMEA region and the United States, the press release noted.

## AROUND EUROPE'S ETF MARKET

### Ossiam To Launch Strategy ETFs

Ossiam, the asset management start-up part-owned by France's Natixis group, will launch exchange-traded funds based on strategy indices, said Bruno Poulin, the company's CEO.

Strategy indices—where an investment strategy is embedded in the fund's benchmark—currently underlie only 7% of Europe's ETFs, compared with around 20% for the US ETF market, suggesting that this is an area ripe for expansion in Europe, argues Poulin.

In the US market strategy ETFs are offered by range of providers, including WisdomTree, Powershares, Rydex and IndexIQ. iShares, the ETF market's biggest player, has also recently made a push into this area. Strategy ETFs are also commonly taken to include those based on leveraged and inverse indices, although Ossiam says it does not plan any leveraged ETFs, at least at first.

In Europe, Invesco Powershares has had limited success with its range of ETFs based upon Research Affiliates' fundamental indexation strategy, while a firm specialising in strategy ETFs, Spa, quit the market two years ago. More and more ETFs with non-standard benchmarks are being launched by Europe's largest ETF providers, but Ossiam believes there's a market gap for a firm specialising in this area and developing its own range of funds based on internal research, said Poulin.

Ossiam will work with external index providers to develop benchmarks based upon the types of quantitative strategy it believes are of value, although it may in due course develop its own indices, Poulin explained.

Although several of Systeia's senior management come from a background in hedge fund investing, Ossiam is not a big fan of embedding hedge fund strategies in ETFs, said Poulin. This is due to the inevitable lack of transparency when it comes to the underlying pool of investments in such funds, he said.

However, Ossiam does plan to include some long-short equity strategies in its ETF range in due course, said the firm's CEO. Ossiam will also move beyond equities and launch ETFs based on other asset classes, he added.

Ossiam plans to list its funds across the major stock exchanges in Europe, said Isabelle Bourcier, the fund manager's newly appointed head of business development and previously head of ETFs at Lyxor.

Ossiam's first ETFs are awaiting approval from European regulators, said Bourcier. The firm's initial funds should be listed in April, she added.

Although the exchange-traded fund market in Europe has grown rapidly, reaching nearly €250 billion in assets from a standing start ten years ago, Bourcier emphasised the continuing need for a regulatory push to expand the market for cheaper, indexed investment funds, such as ETFs. Much of Europe's investment funds market remains commission-driven, a distribution model which excludes ETFs, since they have no means of providing fee rebates to advisers.

"Things have certainly been moving in the right direction, but we probably need further intervention by European regulators," said Bourcier.

### Credit Suisse Lists Alternative Energy ETF

Credit Suisse has listed an alternative energy ETF, together with another equity fund and two money market ETFs.

The CS ETF (IE) on Credit Suisse Global Alternative Energy is based on a proprietary index from the Swiss bank. It offers investors exposure to 30 of the largest companies involved in the wind, solar, bioenergy/biofuels, natural gas and geothermal energy sectors. "We expect a strong development of alternative energies over the next few decades and our ETF provides investors with easy access to this growing and increasingly important sector," said Dan Draper, the bank's global head of exchange-traded funds.

The ETF is authorised for sale in Switzerland, Germany, Italy and the UK.

The fund carries an annual total expense ratio of 0.65%, the same as the leading fund by assets under management in Europe's alternative energy ETF sector, iShares' S&P Global Clean Energy fund. Both these funds use physical (in-kind) replication to track their respective indices.

The swap-based CS ETF (IE) on MSCI World offers investors exposure to stocks from global developed markets. At the end of 2010, the index had 1,656 constituents from 24 countries. The Credit Suisse ETF carries a total expense ratio of 0.4% per annum and will compete with ETFs on the same index from seven other European issuers, offered with annual expense ratios of between 0.38% and 0.5%.

Credit Suisse has also launched two money market ETFs, one tracking the EONIA (Euro OverNight Index Average) index, the second the Fed Funds Effective Rate index. Both are swap-based and charge 0.14% in annual expenses.

### Deutsche Bank Launches ETFs Of ETFs

db x-trackers has launched two new funds of ETFs on the German Stock Exchange's XTF segment.

The db Stiftungs-ETF Stabilität (stability) and db Stiftungs-ETF Wachstum (growth) both invest in underlying portfolios consisting of 11 ETFs from within the db x-trackers range. Each new fund charges 0.75% in annual total expenses, a fee which investors will pay over and above the charges on the underlying ETF investments.

The indices tracked by the new funds have a heavy weighting in fixed income: the db Stiftungs-ETF Stabilität index has a minimum weighting of 75% in bonds and the db Stiftungs-ETF Wachstum index has a minimum weighting of 65%. The equity weighting is limited to 20% in the db Stiftungs-ETF Stabilität Index and 30% in the db Stiftungs-ETF Wachstum Index, with a minimum of 5%. Commodities and alternative investments have a maximum weighting of 10% or 5%, respectively, in the two indices.

Subject to the diversification limits set out above, the indices' asset allocation is determined by DB Advisors, an asset management subsidiary of Deutsche Bank. Index weightings are revised quarterly, with possible additional index reconstitutions occurring up to four times a year at DB Advisors' discretion. Each index reconstitution incurs a transaction cost of up to 0.1% of the index level for the purchase of new constituents and up to 0.1% of the index level for the sale of previous constituents.

The launch of the new trackers takes Deutsche Bank's range of ETFs to three. The other fund in this range is db x-trackers' Portfolio TR Index ETF, launched in late 2008.

## FROM THE EXCHANGES

### Nasdaq Planning To Rival Deutsche Börse's Bid For NYSE Euronext

Deutsche Börse and NYSE Euronext in February announced an agreement to combine in order to create a world-leading exchange group. However, a number of hurdles will need to be overcome before the deal is finalised, included a likely rival bid from Nasdaq OMX.

The press release announcing the merger promises cost benefits of €300 million as well as substantial opportunities for incremental revenues. The new group would have dual headquarters in New York and Frankfurt and would be incorporated in the Netherlands. Deutsche Börse shareholders would own 60% of the new group, with NYSE Euronext shareholders taking a 40% stake.

According to the press release, the combined group's 2010 revenues would amount to a total of €4.1 billion, with a 2010 EBITDA of €2.1 billion, making it the world's largest exchange group on both counts.

However, Deutsche Börse is not the only exchange on the acquisition path. It was reported in March that Robert Greifeld, CEO of Nasdaq OMX, is working with IntercontinentalExchange to mount a counter-bid for NYSE Euronext. Analysts believe that Greifeld is attracted to the cost-cutting potential such a takeover could offer, rather than motivated by expansion. In order to trump the Deutsche Börse offer, Nasdaq would need to secure funding and win over NYSE Euronext shareholders. There is also the matter of a hefty €250 million cancellation fee to consider.

Until now, Nasdaq OMX had been notably absent from the current wave of mergers: London Stock Exchange and Canada's TMX Group, and Chi-X Europe and BATS Europe have all announced combinations recently, in addition to Deutsche Börse's planned merger with NYSE Euronext.

Aside from the expected counter-bid, regulators are expected, if not to derail, then certainly to slow down the planned Deutsche Börse/NYSE Euronext merger. The European Commission's competition officials are expected to review the deal—a process that could take a number of months. There is also a possibility that French and German financial regulators could scupper the agreement.

With the expected Nasdaq OMX bid yet to be announced, Deutsche Börse has expressed confidence in the benefits offered by the agreed merger. However, whichever direction the merger takes, the path ahead is likely to be less than smooth.

## LSE/TMX Merger Opposed By Canadian Banks

London Stock Exchange and TMX Group, the largest exchange group in Canada, announced in February that they are to "join forces in a merger of equals."

Under the agreement, the merged group will have joint headquarters in London and Toronto and is expected to see revenue benefits of £35 million after three years, from a number of sources. Cost synergies of £35 million are also expected after two years. LSE shareholders will own 55% of the merged group, with TMX shareholders owning 45%. At the time of the announcement, Wayne Fox, Chairman of TMX, stated "This merger of equals will benefit shareholders, issuers, customers, employees and other stakeholders of both organisations."

There has been some opposition to the planned merger, however. On 9 March three Canadian banks, Toronto-Dominion Bank, Canadian Imperial Bank of Commerce and National Bank, issued an open letter stating that "Canadians are quite capable of competing and winning on the global stage" and that for TMX, "the key is to preserve its mission and remain an engine of growth in Canada and in global markets." The letter voiced concerns that important decisions would be taking place overseas and observed that "the shift in regulatory influence also needs to be fully understood," particularly where any conflicts between Canadian and other regulators were concerned.

The following day, Thomas Kloet, CEO of TMX Group, issued a statement which said that "the merger agreement contains protections and covenants to ensure that regulatory oversight of the exchanges and of Canadian issuers remain intact.... no foreign regulator, including the UK Financial Services Authority, will have any regulatory powers or influence over any of our Canadian exchanges, entities or issuers."

Kloet has subsequently indicated that the submission of formal documents is likely to begin within a few weeks. He has also stated that he is continuing to communicate with the Canadian banks opposing the deal.

## BATS, Chi-X Europe Talk Merger

BATS Global Markets, a US-based global financial markets technology company, is in talks with Chi-X Europe to acquire the European exchange in an exclusive negotiation that was first announced in December.

BATS operates two US stock exchanges—the BZX Exchange and the BYX Exchange—as well as equity options market BATS Options and Europe-based BATS Europe. In January, the BZX and BYX traded a combined US$534 billion, representing more than 10% of the total US equities market, according to company data.

Chi-X Europe is Europe's second-largest equities exchange by value traded, with more than 1,300 securities across 15 European markets. It is also a trading platform for ETFs, exchange-traded commodities and international depositary receipts. In 2010, more than €1.58 trillion worth of securities were traded there, according to data on the company's website. The exchange, launched in 2007, was designed to allow investors to trade equities across most European markets at much lower costs than many of the markets of listing, the company said.

## NYSE Euronext French Indices Harmonised

Effective from the 21 March, NYSE Euronext has made a number of changes to its Paris range of indices. According to a press release, the changes are designed to enhance liquidity and visibility for issuers and investors, and to make them simpler and more user-friendly.

As part of the overhaul, the rules currently applying to the CAC 40® index will be extended to cover all of NYSE Euronext's market-wide indices in France. Consequently, the relevant indices will now be calculated and disseminated every 15 seconds, which is intended to facilitate the replication of the indices and the listing of associated derivatives.

As another consequence of the changes, some indices will be replaced and others revised. For example, CAC Mid 100® is set to be replaced with CAC Mid 60®; CAC Small 90® will be replaced with CAC Small®, and SBF 250® will be replaced with CAC All-Tradable®. According to NYSE Euronext, these changes are intended to represent the market's three main segments—small, medium and large capitalisations—more effectively.

## CBOE Debuts "Skew" Index

A February press release from the CBOE announced the launch of the CBOE S&P 500 Skew Index, another volatility index designed to complement the CBOE's VIX. The Skew, however, does not seek to chart everyday volatility; rather, it targets more extreme tail-risk events.

By tracking the performance of out-of-the-money S&P 500 options, the Skew is designed to reflect investor fears—namely, their expectations of a market crash. The higher the Skew goes, the greater the likelihood of a "black swan" event, according to the press release. A CBOE white paper on the index notes that a Skew value of 100 represents a very low risk of extreme negative market movements, while a value of 115 is roughly the historical average.

## Global/Regional/Country Index Returns

May/June 2011

### Global/Regional

| | | | Period return | | | | | Return per annum | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|
| **Index Name** | **Index Type** | **YTD** | **2010** | **2009** | **2008** | **2007** | **2006** | **1-Yr** | **3-Yr** | **5-Yr** | **10-Yr** |
| MSCI World | Price Return | 2.56% | 17.16% | 23.02% | -39.08% | -3.41% | 5.51% | 17.84% | 0.68% | -2.28% | -2.32% |
| | Net Return | 2.80% | 19.53% | 25.94% | -37.64% | -1.66% | 7.40% | 20.22% | 2.95% | -0.25% | -0.52% |
| | Gross Return | 2.87% | 20.14% | 26.72% | -37.24% | -1.18% | 7.93% | 20.85% | 3.56% | 0.30% | -0.03% |
| MSCI Europe | Price Return | 3.98% | 8.04% | 27.15% | -45.52% | 0.07% | 16.49% | 16.16% | -3.81% | -2.93% | -1.89% |
| | Net Return | 4.27% | 11.10% | 31.60% | -43.65% | 2.69% | 19.61% | 19.48% | -0.67% | 0.01% | 0.77% |
| | Gross Return | 4.32% | 11.75% | 32.55% | -43.29% | 3.17% | 20.18% | 20.22% | -0.01% | 0.59% | 1.27% |
| MSCI Euro | Price Return | 6.74% | -2.25% | 22.50% | -45.89% | 7.04% | 17.76% | 12.60% | -6.84% | -3.91% | -3.00% |
| | Net Return | 6.95% | 0.68% | 26.87% | -44.09% | 9.64% | 20.76% | 16.05% | -3.76% | -1.03% | -0.54% |
| | Gross Return | 7.00% | 1.61% | 28.24% | -43.56% | 10.39% | 21.65% | 17.14% | -2.81% | -0.16% | 0.21% |
| MSCI AC[1] Far East | Price Return | -2.44% | 22.95% | 22.58% | -37.00% | -2.60% | 0.01% | 15.63% | 0.69% | -2.74% | -0.73% |
| | Net Return | -2.33% | 25.51% | 25.04% | -35.54% | -0.99% | 1.54% | 18.01% | 2.83% | -0.88% | 0.89% |
| | Gross Return | -2.30% | 25.77% | 25.29% | -35.39% | -0.82% | 1.70% | 18.26% | 3.04% | -0.69% | 1.08% |
| MSCI Far East | Price Return | 0.37% | 22.09% | 6.99% | -30.35% | -10.93% | -3.94% | 14.36% | 0.00% | -5.42% | -2.71% |
| | Net Return | 0.41% | 24.54% | 9.12% | -28.68% | -9.62% | -2.69% | 16.66% | 2.05% | -3.73% | -1.28% |
| | Gross Return | 0.41% | 24.69% | 9.24% | -28.77% | -9.55% | -2.62% | 16.79% | 2.17% | -3.63% | -1.16% |
| MSCI EM[2] Far East | Price Return | -6.69% | 24.19% | 61.16% | -49.52% | 20.54% | 14.12% | 17.86% | 1.68% | 4.22% | 5.93% |
| | Net Return | -6.49% | 26.92% | 64.49% | -48.18% | 23.10% | 16.77% | 20.40% | 3.98% | 6.55% | 8.20% |
| | Gross Return | -6.43% | 27.38% | 65.11% | -47.94% | 23.60% | 17.60% | 20.83% | 4.37% | 6.97% | 8.65% |
| MSCI North America | Price Return | 2.66% | 21.54% | 22.35% | -36.10% | -4.69% | 1.39% | 19.87% | 3.50% | -1.50% | -2.74% |
| | Net Return | 2.89% | 23.31% | 24.43% | -35.03% | -3.43% | 2.73% | 21.60% | 5.15% | -0.03% | -1.42% |
| | Gross Return | 2.98% | 24.04% | 25.32% | -34.58% | -2.89% | 3.30% | 22.31% | 5.85% | 0.59% | -0.87% |
| MSCI Emerging Markets | Price Return | -6.55% | 24.45% | 69.06% | -52.12% | 23.09% | 15.55% | 16.95% | 1.41% | 4.10% | 7.77% |
| | Net Return | -6.39% | 27.14% | 72.94% | -50.91% | 25.72% | 18.23% | 19.47% | 3.73% | 6.45% | 10.34% |
| | Gross Return | -6.35% | 27.48% | 73.44% | -50.76% | 26.07% | 18.60% | 19.79% | 4.02% | 6.76% | 10.66% |
| MSCI EM Asia | Price Return | -8.13% | 24.66% | 65.00% | -51.71% | 24.73% | 16.11% | 16.08% | 1.10% | 4.52% | 6.23% |
| | Net Return | -7.94% | 27.25% | 68.23% | -50.52% | 27.24% | 18.69% | 18.46% | 3.25% | 6.73% | 8.45% |
| | Gross Return | -7.90% | 27.65% | 68.78% | -50.32% | 27.69% | 19.17% | 18.82% | 3.59% | 7.10% | 8.86% |
| MSCI EM Eastern Europe | Price Return | 5.98% | 21.62% | 73.75% | -68.00% | 11.54% | 28.48% | 27.06% | -6.27% | -2.85% | 12.16% |
| | Net Return | 5.98% | 23.93% | 77.81% | -67.49% | 13.34% | 30.88% | 29.47% | -4.46% | -1.04% | 14.25% |
| | Gross Return | 5.98% | 24.35% | 78.54% | -67.40% | 13.63% | 31.30% | 29.90% | -4.13% | -0.73% | 14.64% |
| MSCI EM Latin America | Price Return | -5.55% | 19.86% | 91.97% | -50.34% | 32.48% | 24.64% | 13.56% | 3.28% | 8.85% | 12.17% |
| | Net Return | -5.37% | 22.62% | 97.42% | -48.90% | 35.65% | 28.05% | 16.25% | 6.01% | 11.66% | 15.56% |
| | Gross Return | -5.35% | 22.87% | 97.83% | -48.76% | 35.90% | 28.35% | 16.49% | 6.25% | 11.90% | 15.78% |

### Countries

| | | | Period return | | | | | Return per annum | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|
| **Index Name** | **Index Type** | **YTD** | **2010** | **2009** | **2008** | **2007** | **2006** | **1-Yr** | **3-Yr** | **5-Yr** | **10-Yr** |
| MSCI Finland | Price Return | -4.95% | 14.50% | 3.89% | -54.17% | 30.79% | 13.73% | 3.73% | -17.33% | -6.41% | -4.74% |
| | Net Return | -4.95% | 17.95% | 7.68% | -52.84% | 34.07% | 16.23% | 6.85% | -14.71% | -3.75% | -2.48% |
| | Gross Return | -4.95% | 19.31% | 9.18% | -52.32% | 35.37% | 17.22% | 8.09% | -13.67% | -2.70% | -1.57% |
| MSCI France | Price Return | 7.46% | -0.26% | 23.67% | -42.06% | 0.02% | 17.79% | 12.71% | -3.73% | -3.08% | -1.99% |
| | Net Return | 7.49% | 2.55% | 27.73% | -40.33% | 2.13% | 20.29% | 15.88% | -0.81% | -0.49% | 0.10% |
| | Gross Return | 7.50% | 3.49% | 29.11% | -39.75% | 2.84% | 21.14% | 16.95% | 0.17% | 0.38% | 0.81% |
| MSCI Germany | Price Return | 4.55% | 13.39% | 17.53% | -44.51% | 19.53% | 19.00% | 26.55% | -2.68% | 0.43% | -1.08% |
| | Net Return | 4.83% | 15.97% | 21.25% | -43.07% | 21.95% | 21.64% | 29.52% | -0.06% | 2.91% | 1.00% |
| | Gross Return | 4.92% | 16.91% | 22.61% | -42.67% | 22.60% | 22.36% | 30.60% | 0.83% | 3.69% | 1.64% |
| MSCI Greece | Price Return | 12.89% | -42.64% | 18.78% | -65.36% | 16.56% | 17.72% | -23.79% | -30.43% | -20.58% | -8.73% |
| | Net Return | 12.89% | -41.04% | 21.15% | -64.25% | 19.87% | 20.80% | -21.67% | -28.57% | -18.44% | -5.96% |
| | Gross Return | 12.89% | -40.89% | 21.42% | -64.25% | 19.87% | 20.80% | -21.47% | -28.45% | -18.36% | -5.91% |

*Source: MSCI. Data as of February 28, 2011. All returns are in Euro, unless noted. 3-, 5- and 10-year returns are annualised.*
*[1]AC = All Country (Developed Markets + Emerging Markets). [2]EM = Emerging Markets.*

DATA SUPPLIED BY MSCI

## Global/Regional/Country Index Returns

May/June 2011

### Countries (continued)

| Index Name | Index Type | YTD | 2010 | 2009 | Period return 2008 | 2007 | 2006 | 1-Yr | Return per annum 3-Yr | 5-Yr | 10-Yr |
|---|---|---|---|---|---|---|---|---|---|---|---|
| MSCI Ireland | Price Return | 6.06% | -14.13% | 6.49% | -71.33% | -29.53% | 28.68% | -5.65% | -33.16% | -25.32% | -12.95% |
| | Net Return | 6.06% | -12.43% | 8.78% | -70.47% | -27.93% | 31.33% | -3.79% | -31.72% | -23.62% | -10.90% |
| | Gross Return | 6.06% | -12.00% | 9.36% | -70.25% | -27.52% | 32.00% | -3.32% | -31.35% | -23.19% | -10.62% |
| MSCI Italy | Price Return | 10.96% | -11.90% | 18.80% | -49.62% | -7.40% | 14.55% | 7.59% | -12.31% | -9.99% | -5.19% |
| | Net Return | 10.96% | -9.10% | 22.63% | -47.39% | -4.35% | 18.51% | 11.01% | -9.14% | -6.82% | -2.26% |
| | Gross Return | 10.96% | -8.10% | 24.01% | -46.57% | -3.26% | 19.93% | 12.23% | -8.00% | -5.68% | -1.19% |
| MSCI Netherlands | Price Return | 5.12% | 6.28% | 33.57% | -47.51% | 6.00% | 14.70% | 15.62% | -3.40% | -2.10% | -3.34% |
| | Net Return | 5.30% | 8.81% | 37.82% | -45.54% | 8.76% | 17.52% | 18.40% | -0.35% | 0.75% | -0.71% |
| | Gross Return | 5.33% | 9.26% | 38.58% | -45.18% | 9.26% | 18.48% | 18.90% | 0.20% | 1.34% | 0.00% |
| MSCI Norway | Price Return | 2.63% | 14.86% | 76.82% | -63.42% | 15.83% | 26.62% | 27.53% | -4.23% | 0.32% | 5.84% |
| | Net Return | 2.63% | 18.66% | 81.24% | -62.39% | 18.54% | 29.81% | 31.74% | -1.49% | 3.02% | 8.61% |
| | Gross Return | 2.63% | 19.59% | 82.73% | -62.04% | 19.45% | 30.89% | 32.78% | -0.66% | 3.87% | 9.52% |
| MSCI Portugal | Price Return | 5.31% | -8.69% | 31.16% | -51.25% | 9.17% | 28.30% | 8.39% | -9.81% | -4.77% | -3.37% |
| | Net Return | 5.31% | -5.15% | 36.04% | -49.68% | 11.84% | 31.82% | 12.60% | -6.56% | -1.72% | -0.75% |
| | Gross Return | 5.31% | -4.25% | 37.27% | -49.28% | 12.51% | 32.72% | 13.67% | -5.73% | -0.95% | 0.01% |
| MSCI Spain | Price Return | 10.54% | -20.20% | 32.21% | -40.01% | 8.83% | 29.56% | 2.90% | -6.60% | -1.93% | 0.63% |
| | Net Return | 11.27% | -16.53% | 39.01% | -37.52% | 11.80% | 33.60% | 7.95% | -2.25% | 1.95% | 3.83% |
| | Gross Return | 11.44% | -15.65% | 40.55% | -36.96% | 12.46% | 34.33% | 9.17% | -1.25% | 2.82% | 4.51% |
| MSCI Sweden | Price Return | 0.27% | 40.39% | 55.18% | -48.92% | -11.03% | 25.67% | 33.49% | 7.05% | 3.69% | 2.15% |
| | Net Return | 0.27% | 43.04% | 59.05% | -47.26% | -9.25% | 28.26% | 36.01% | 9.77% | 6.12% | 4.24% |
| | Gross Return | 0.27% | 44.18% | 60.72% | -46.54% | -8.48% | 29.38% | 37.09% | 10.95% | 7.17% | 5.14% |
| MSCI Switzerland | Price Return | -0.11% | 17.47% | 19.10% | -28.02% | -6.31% | 12.59% | 13.33% | 2.74% | 0.49% | 0.85% |
| | Net Return | 0.25% | 19.56% | 21.41% | -26.89% | -5.04% | 13.96% | 15.77% | 4.59% | 2.15% | 2.19% |
| | Gross Return | 0.45% | 20.70% | 22.67% | -26.27% | -4.34% | 14.71% | 17.10% | 5.60% | 3.05% | 2.92% |
| MSCI UK | Price Return | 2.83% | 12.47% | 33.06% | -48.00% | -5.55% | 12.89% | 17.99% | -3.00% | -3.83% | -2.65% |
| | Net Return | 3.31% | 16.31% | 38.84% | -45.67% | -2.27% | 16.83% | 21.85% | 0.97% | -0.12% | 0.82% |
| | Gross Return | 3.32% | 16.36% | 38.91% | -45.65% | -2.24% | 16.88% | 21.90% | 1.01% | -0.08% | 0.84% |
| MSCI Australia | Price Return | -1.39% | 17.63% | 63.52% | -49.83% | 12.75% | 13.69% | 15.44% | 2.06% | 3.28% | 6.63% |
| | Net Return | -0.73% | 22.48% | 70.94% | -48.12% | 15.75% | 17.06% | 20.28% | 6.20% | 6.96% | 10.03% |
| | Gross Return | -0.71% | 22.70% | 71.26% | -47.37% | 17.06% | 18.53% | 20.48% | 6.76% | 7.82% | 11.13% |
| MSCI Hong Kong | Price Return | -4.53% | 27.99% | 50.37% | -50.43% | 23.99% | 12.95% | 19.82% | 3.07% | 4.07% | 0.36% |
| | Net Return | -4.49% | 31.80% | 55.16% | -48.68% | 27.35% | 16.60% | 23.36% | 6.41% | 7.33% | 3.75% |
| | Gross Return | -4.49% | 31.80% | 55.16% | -48.68% | 27.35% | 16.60% | 23.36% | 6.41% | 7.33% | 3.75% |
| MSCI Japan | Price Return | 1.65% | 21.24% | 1.18% | -26.93% | -14.70% | -6.00% | 13.80% | -0.51% | -6.64% | -3.20% |
| | Net Return | 1.69% | 23.46% | 2.94% | -25.54% | -13.63% | -4.96% | 15.89% | 1.31% | -5.18% | -2.00% |
| | Gross Return | 1.69% | 23.62% | 3.08% | -25.44% | -13.55% | -4.88% | 16.05% | 1.45% | -5.07% | -1.88% |
| MSCI New Zealand | Price Return | -3.24% | 10.35% | 38.56% | -53.95% | -6.18% | -1.59% | 9.84% | -7.83% | -7.55% | 1.28% |
| | Net Return | -2.81% | 15.84% | 45.72% | -51.40% | -1.78% | 4.26% | 15.81% | -3.06% | -2.80% | 5.93% |
| | Gross Return | -2.74% | 16.83% | 47.01% | -50.94% | -0.98% | 5.32% | 16.89% | -2.20% | -1.94% | 7.18% |
| MSCI Singapore | Price Return | -8.02% | 26.68% | 62.08% | -46.93% | 11.76% | 26.94% | 17.12% | 4.62% | 5.79% | 2.70% |
| | Net Return | -7.93% | 30.63% | 68.54% | -44.62% | 15.76% | 31.23% | 20.74% | 8.61% | 9.69% | 5.93% |
| | Gross Return | -7.93% | 30.65% | 68.58% | -44.61% | 15.78% | 31.25% | 20.76% | 8.64% | 9.72% | 5.94% |
| MSCI Canada | Price Return | 4.39% | 26.41% | 47.95% | -43.82% | 15.06% | 3.93% | 28.50% | 4.73% | 4.45% | 6.15% |
| | Net Return | 4.61% | 28.82% | 51.32% | -42.69% | 16.86% | 5.38% | 30.92% | 6.88% | 6.38% | 7.86% |
| | Gross Return | 4.69% | 29.63% | 52.46% | -42.31% | 17.46% | 5.87% | 31.73% | 7.61% | 7.03% | 8.43% |
| MSCI USA | Price Return | 2.47% | 21.04% | 20.33% | -35.39% | -6.12% | 1.24% | 19.00% | 3.35% | -2.00% | -3.28% |
| | Net Return | 2.70% | 22.75% | 22.32% | -34.34% | -4.90% | 2.58% | 20.66% | 4.96% | -0.57% | -1.99% |
| | Gross Return | 2.79% | 23.47% | 23.18% | -33.88% | -4.37% | 3.15% | 21.36% | 5.65% | 0.05% | -1.44% |

*Source: MSCI. Data as of February 28, 2011. All returns are in Euro, unless noted. 3-, 5- and 10-year returns are annualised.*
*[1]AC = All Country (Developed Markets + Emerging Markets). [2]EM = Emerging Markets.*

DATA SUPPLIED BY MSCI

## Sector/Dividend/Style/Size Index Returns

May/June 2011

### Sector

| | | | Period return | | | | | Return per annum | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|
| **Index Name** | **Index Type** | **YTD** | **2010** | **2009** | **2008** | **2007** | **2006** | **1-Yr** | **3-Yr** | **5-Yr** | **10-Yr** |
| STOXX Europe 600 | Price | 1.22% | 44.46% | 18.13% | -44.55% | 24.37% | 25.57% | 69.85% | 3.73% | 5.87% | 3.35% |
| Automobiles & Parts | Net Return | 1.22% | 45.33% | 19.39% | -43.25% | 26.29% | 27.91% | 70.85% | 5.08% | 7.40% | 5.25% |
| | Gross Return | 1.22% | 45.62% | 19.84% | -42.88% | 26.84% | 28.55% | 71.19% | 5.51% | 7.87% | 5.82% |
| STOXX Europe 600 | Price | 11.45% | -11.57% | 46.91% | -64.38% | -16.87% | 18.71% | 6.34% | -14.99% | -14.18% | -5.53% |
| Banks | Net Return | 11.66% | -9.61% | 50.69% | -62.69% | -14.05% | 22.40% | 8.75% | -12.32% | -11.45% | -2.64% |
| | Gross Return | 11.70% | -9.21% | 51.31% | -62.40% | -13.56% | 23.04% | 9.24% | -11.85% | -10.97% | -2.16% |
| STOXX Europe 600 | Price | -2.47% | 26.58% | 101.40% | -64.43% | 28.02% | 35.32% | 30.76% | -4.64% | 6.55% | 9.72% |
| Basic Resources | Net Return | -2.43% | 28.57% | 105.95% | -63.65% | 30.57% | 39.26% | 32.57% | -2.85% | 8.72% | 12.57% |
| | Gross Return | -2.42% | 28.73% | 106.42% | -63.57% | 30.86% | 39.66% | 32.73% | -2.66% | 8.96% | 12.74% |
| STOXX Europe 600 | Price | -0.35% | 22.68% | 44.14% | -37.90% | 25.47% | 21.70% | 29.25% | 6.30% | 9.99% | 5.71% |
| Chemicals | Net Return | -0.32% | 25.23% | 48.72% | -36.56% | 27.71% | 23.83% | 31.95% | 8.89% | 12.35% | 8.03% |
| | Gross Return | -0.31% | 26.11% | 50.29% | -36.19% | 28.30% | 24.42% | 32.87% | 9.73% | 13.07% | 8.70% |
| STOXX Europe 600 | Price | 3.40% | 2.11% | 35.55% | -47.42% | -1.36% | 35.90% | 15.66% | -5.77% | -1.97% | 2.94% |
| Construction & Materials | Net Return | 3.51% | 4.73% | 39.95% | -45.96% | 0.26% | 38.28% | 18.61% | -3.11% | 0.36% | 5.29% |
| | Gross Return | 3.54% | 5.59% | 41.32% | -45.48% | 0.76% | 38.92% | 19.58% | -2.26% | 1.08% | 5.94% |
| STOXX Europe 600 | Price | 3.56% | 14.60% | 28.87% | -56.03% | -12.66% | 44.94% | 27.09% | -9.10% | -5.69% | -1.65% |
| Financial Services | Net Return | 3.63% | 18.63% | 33.61% | -54.61% | -10.82% | 47.70% | 31.56% | -6.01% | -3.01% | 0.95% |
| | Gross Return | 3.63% | 19.33% | 34.55% | -54.40% | -10.55% | 48.11% | 32.34% | -5.48% | -2.57% | 1.40% |
| STOXX Europe 600 | Price | -4.10% | 19.46% | 31.47% | -29.64% | 10.89% | 14.98% | 12.11% | 5.14% | 5.56% | 4.03% |
| Food & Beverage | Net Return | -3.94% | 22.27% | 35.17% | -28.03% | 13.03% | 17.55% | 14.71% | 7.77% | 8.00% | 6.34% |
| | Gross Return | -3.93% | 22.97% | 36.13% | -27.67% | 13.44% | 18.09% | 15.38% | 8.41% | 8.56% | 6.82% |
| STOXX Europe 600 | Price | 0.26% | 6.00% | 13.17% | -17.79% | -10.94% | 2.79% | 4.47% | 2.38% | -1.82% | -1.80% |
| Health Care | Net Return | 1.44% | 9.11% | 16.84% | -15.64% | -9.19% | 4.62% | 8.15% | 5.54% | 0.75% | 0.27% |
| | Gross Return | 1.73% | 9.88% | 17.76% | -15.17% | -8.87% | 4.95% | 9.23% | 6.35% | 1.35% | 0.70% |
| STOXX Europe 600 | Price | 1.87% | 33.26% | 37.45% | -47.11% | 9.38% | 23.89% | 35.01% | 3.32% | 4.02% | 0.43% |
| Industrial Goods & Services | Net Return | 2.23% | 35.56% | 41.21% | -45.93% | 11.25% | 26.20% | 37.43% | 5.59% | 6.14% | 2.62% |
| | Gross Return | 2.36% | 36.04% | 42.24% | -45.65% | 11.66% | 26.66% | 37.98% | 6.16% | 6.64% | 3.13% |
| STOXX Europe 60 | Price | 14.72% | 1.56% | 12.92% | -46.60% | -11.92% | 17.18% | 18.79% | -7.27% | -7.34% | -7.99% |
| Insurance | Net Return | 14.74% | 4.67% | 17.05% | -44.42% | -9.53% | 19.88% | 22.44% | -3.97% | -4.45% | -5.50% |
| | Gross Return | 14.72% | 5.53% | 18.11% | -43.93% | -9.03% | 20.47% | 23.42% | -3.15% | -3.76% | -4.97% |
| STOXX Europe 600 | Price | 4.94% | 13.34% | 18.19% | -40.40% | -5.82% | 7.27% | 22.53% | -0.98% | -3.23% | -7.14% |
| Media | Net Return | 4.94% | 17.23% | 23.35% | -38.31% | -3.41% | 9.82% | 26.73% | 2.70% | -0.13% | -4.87% |
| | Gross Return | 4.94% | 18.00% | 24.41% | -37.94% | -3.03% | 10.27% | 27.58% | 3.42% | 0.44% | -4.48% |
| STOXX Europe 60 | Price | 8.64% | 0.46% | 24.19% | -39.69% | 7.39% | 4.04% | 15.49% | -2.93% | -2.19% | 0.27% |
| Oil & Gas | Net Return | 9.08% | 3.32% | 29.91% | -37.46% | 10.48% | 6.92% | 18.59% | 0.59% | 1.05% | 3.39% |
| | Gross Return | 9.13% | 3.97% | 30.84% | -37.07% | 11.11% | 7.32% | 19.35% | 1.24% | 1.63% | 3.86% |
| STOXX Europe 600 | Price | -1.87% | 27.30% | 37.53% | -41.59% | 6.26% | 17.77% | 20.67% | 4.40% | 3.57% | 4.61% |
| Personal & Household | Net Return | -1.44% | 30.58% | 41.99% | -40.17% | 8.35% | 20.11% | 23.78% | 7.28% | 6.11% | 6.98% |
| Goods | Gross Return | -1.44% | 30.93% | 42.48% | -39.99% | 8.58% | 20.39% | 24.11% | 7.60% | 6.39% | 7.26% |
| STOXX Europe 600 | Price | 4.47% | 11.70% | 26.98% | -51.70% | -35.27% | 50.68% | 22.18% | -11.11% | -9.20% | 1.57% |
| Real Estate | Net Return | 4.56% | 14.56% | 33.99% | -50.14% | -33.75% | 53.75% | 25.15% | -7.87% | -6.41% | 4.65% |
| | Gross Return | 4.58% | 15.09% | 35.70% | | | | 25.75% | | | |
| STOXX Europe 600 | Price | -1.28% | 10.23% | 33.31% | -43.38% | -1.33% | 24.44% | 9.47% | -1.13% | -0.75% | -1.30% |
| Retail | Net Return | -1.29% | 13.16% | 37.36% | -41.69% | 0.65% | 27.52% | 12.38% | 1.69% | 1.80% | 1.17% |
| | Gross Return | -1.29% | 13.64% | 38.04% | -41.47% | 0.89% | 27.84% | 12.84% | 2.12% | 2.15% | 1.46% |

*Source: STOXX. Data as of February 28, 2011. All returns are in Euro, unless noted.*
*3-, 5- and 10-year returns are annualised.[1]Gross return versions are not calculated for these indices.*

DATA SUPPLIED BY STOXX

## Sector/Dividend/Style/Size Index Returns

May/June 2011

### Sector (continued)

| Index Name | Index Type | YTD | 2010 | 2009 | Period return 2008 | 2007 | 2006 | 1-Yr | Return per annum 3-Yr | 5-Yr | 10-Yr |
|---|---|---|---|---|---|---|---|---|---|---|---|
| STOXX Europe 600 Technology | Price | 8.34% | 16.91% | 20.48% | -49.64% | -1.11% | 3.48% | 21.01% | -4.85% | -5.16% | -7.73% |
| | Net Return | 8.48% | 18.87% | 22.79% | -48.76% | 0.16% | 4.61% | 23.10% | -3.17% | -3.69% | -6.64% |
| | Gross Return | 8.53% | 19.51% | 23.59% | -48.47% | 0.59% | 4.98% | 23.79% | -2.60% | -3.20% | - |
| STOXX Europe 600 Telecommunications | Price | 5.03% | 3.00% | 11.25% | -36.48% | 14.58% | 16.91% | 14.64% | -3.71% | 1.58% | -3.89% |
| | Net Return | 5.03% | 8.90% | 17.48% | -33.12% | 18.96% | 21.86% | 21.21% | 1.54% | 6.51% | -0.72% |
| | Gross Return | 5.03% | 9.76% | 18.69% | -32.53% | 19.65% | 22.65% | 22.17% | 2.45% | 7.34% | -0.22% |
| STOXX Europe 600 Travel & Leisure | Price | -2.84% | 25.21% | 14.56% | -46.11% | -16.50% | 22.98% | 17.91% | -4.55% | -5.38% | -2.89% |
| | Net Return | -2.08% | 28.38% | 18.52% | -43.97% | -14.69% | 25.99% | 21.10% | -1.32% | -2.57% | -0.36% |
| | Gross Return | -2.03% | 28.59% | 18.94% | -43.71% | -14.62% | 26.18% | 21.29% | -1.00% | -2.32% | -0.17% |
| STOXX Europe 600 Utilities | Price | 5.53% | -8.85% | 0.98% | -38.07% | 17.95% | 35.63% | 3.17% | -11.79% | -2.90% | 1.42% |
| | Net Return | 5.68% | -4.49% | 6.20% | -35.87% | 21.35% | 39.92% | 8.12% | -7.89% | 0.81% | 5.06% |
| | Gross Return | 5.69% | -3.46% | 7.54% | -35.37% | 22.04% | 40.55% | 9.28% | -6.95% | 1.62% | 5.72% |

### Dividends

| Index Name | Index Type | YTD | 2010 | 2009 | Period return 2008 | 2007 | 2006 | 1-Yr | Return per annum 3-Yr | 5-Yr | 10-Yr |
|---|---|---|---|---|---|---|---|---|---|---|---|
| STOXX Global Select Dividend 100[1] | Price | 0.54% | 17.28% | 34.34% | -53.62% | -9.43% | 15.55% | 15.67% | -6.77% | -6.10% | 1.70% |
| | Net Return | 0.89% | 22.47% | 40.65% | -51.09% | -5.91% | 19.89% | 20.98% | -2.26% | -1.98% | 5.99% |
| STOXX Europe Select Dividend 30[1] | Price | 4.58% | 3.07% | 28.74% | -61.78% | -8.49% | 20.72% | 12.78% | -15.50% | -11.36% | -0.44% |
| | Net Return | 5.02% | 8.35% | 35.99% | -59.33% | -4.71% | 25.67% | 18.98% | -10.63% | -6.90% | 4.55% |
| STOXX Americas Select Dividend 40[1] | Price | -0.80% | 23.28% | 17.12% | -41.96% | -18.21% | 7.41% | 15.59% | -3.28% | -6.67% | -1.01% |
| | Net Return | -0.34% | 28.42% | 21.86% | -39.75% | -15.37% | 10.33% | 20.58% | 0.54% | -3.30% | 2.10% |
| STOXX Asia/Pacific Select Dividend 30[1] | Price | -2.51% | 27.57% | 55.71% | -53.68% | -0.96% | 17.58% | 19.81% | -0.96% | -0.09% | 5.92% |
| | Net Return | -2.41% | 32.74% | 62.67% | -50.97% | 3.08% | 22.81% | 24.56% | 3.72% | 4.38% | 10.47% |

### Style/Size

| Index Name | Index Type | YTD | 2010 | 2009 | Period return 2008 | 2007 | 2006 | 1-Yr | Return per annum 3-Yr | 5-Yr | 10-Yr |
|---|---|---|---|---|---|---|---|---|---|---|---|
| STOXX Europe Total Market Growth[1] | Price | 1.02% | 17.38% | 24.06% | -43.14% | 5.25% | 15.48% | 19.99% | -2.49% | -0.35% | -1.95% |
| | Net Return | 1.18% | 19.33% | 27.82% | -41.80% | 7.01% | 17.42% | 21.96% | -0.21% | 1.71% | -0.22% |
| STOXX Europe Total Market Value[1] | Price | 6.00% | -2.01% | 32.69% | -48.51% | -2.78% | 18.39% | 8.36% | -6.72% | -5.10% | -1.42% |
| | Net Return | 6.45% | 1.86% | 37.46% | -46.40% | 0.32% | 22.11% | 12.75% | -3.09% | -1.70% | 1.91% |
| STOXX Europe Large 200 | Price | 4.18% | 6.17% | 25.12% | -45.03% | 1.39% | 15.34% | 14.72% | -4.77% | -3.22% | -2.40% |
| | Net Return | 4.49% | 9.22% | 29.60% | -43.10% | 4.11% | 18.42% | 18.06% | -1.62% | -0.28% | 0.24% |
| | Gross Return | 4.56% | 9.87% | 30.57% | -42.73% | 4.61% | 18.96% | 18.81% | -0.96% | 0.30% | 0.71% |
| STOXX Europe Mid 200 | Price | 2.83% | 20.04% | 41.30% | -47.48% | -7.17% | 27.72% | 24.98% | 0.45% | 0.08% | 2.59% |
| | Net Return | 2.93% | 22.67% | 44.92% | -46.04% | -5.33% | 30.23% | 27.70% | 2.92% | 2.34% | 4.85% |
| | Gross Return | 2.95% | 23.21% | 45.79% | -45.75% | -5.02% | 30.67% | 28.26% | 3.46% | 2.80% | 5.32% |
| STOXX Europe Small 200 | Price | 1.80% | 21.98% | 49.14% | -50.53% | -5.68% | 31.23% | 25.86% | 0.22% | 0.46% | 3.24% |
| | Net Return | 1.93% | 24.56% | 53.53% | -49.20% | -3.93% | 33.73% | 28.56% | 2.79% | 2.76% | 5.43% |
| | Gross Return | 1.94% | 25.07% | 54.53% | -48.95% | -3.60% | 34.17% | 29.08% | 3.30% | 3.21% | 5.86% |

*Source: STOXX. Data as of February 28, 2011. All returns are in Euro, unless noted.*
*3-, 5- and 10-year returns are annualised.[1]Gross return versions are not calculated for these indices.*

DATA SUPPLIED BY STOXX

# Index Returns

## Fixed Income Index Returns

May/June 2011

### Aggregate (Series-L)

| | | | Period return | | | | | Return per annum | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|
| **Index Name** | **Index Type** | **YTD** | **2010** | **2009** | **2008** | **2007** | **2006** | **1-Yr** | **3-Yr** | **5-Yr** | **10-Yr** |
| Pan-European Aggregate | Price Return | -0.98% | -0.90% | 1.89% | 1.38% | -2.66% | -4.13% | -2.90% | 0.00% | -0.92% | 0.08% |
| | Total Return | -0.17% | 4.31% | 7.66% | 1.74% | 0.51% | 0.51% | 2.33% | 4.09% | 2.90% | 4.43% |
| Pan-European High Yield | Price Return | 3.33% | 7.36% | 67.49% | -38.16% | -8.46% | 3.78% | 8.35% | 7.19% | 1.54% | -1.09% |
| | Total Return | 4.65% | 16.18% | 86.66% | -34.90% | -2.98% | 11.66% | 17.47% | 16.07% | 9.34% | 7.38% |
| U.S. Aggregate | Price Return | -0.20% | 2.82% | 1.39% | -0.08% | 1.42% | -1.01% | 1.35% | 0.98% | 0.96% | 0.58% |
| | Total Return | -2.51% | 13.94% | 2.63% | 10.69% | -3.52% | -6.67% | 3.68% | 8.98% | 2.74% | 1.40% |
| U.S. Corporate High Yield | Price Return | 2.22% | 6.10% | 43.75% | -33.06% | -5.89% | 3.37% | 8.41% | 2.85% | 0.12% | -0.60% |
| | Total Return | 0.57% | 23.12% | 53.28% | -22.33% | -8.12% | 0.05% | 16.11% | 16.10% | 6.02% | 4.02% |
| Asian Pacific Aggregate | Price Return | -0.79% | 0.96% | -0.70% | 2.62% | 0.63% | -1.01% | 0.15% | 0.40% | 0.46% | -0.08% |
| | Total Return | -4.25% | 25.30% | -3.08% | 28.97% | -1.73% | -9.62% | 9.27% | 13.63% | 5.78% | 1.23% |
| Global Emerging Markets | Price Return | -0.82% | 5.15% | 24.84% | -21.07% | -2.86% | 1.56% | 3.76% | 1.17% | -0.14% | n/a |
| | Total Return | -2.19% | 18.64% | 31.38% | -11.76% | -4.55% | -0.57% | 9.56% | 11.36% | 4.52% | n/a |
| EM Local Currency Government | Price Return | -1.32% | 2.82% | 0.86% | n/a | n/a | n/a | 0.84% | n/a | n/a | n/a |
| | Total Return | -2.52% | 20.36% | 13.62% | n/a | n/a | n/a | 10.48% | n/a | n/a | n/a |
| Euro-Aggregate: Treasury | Price Return | -1.14% | -2.68% | 0.14% | 4.69% | -2.57% | -4.34% | -4.82% | -0.45% | -0.98% | 0.09% |
| | Total Return | -0.51% | 1.14% | 4.30% | 9.28% | 1.67% | -0.24% | -1.10% | 3.87% | 3.18% | 4.64% |
| Sterling Gilts | Price Return | -1.91% | 3.04% | -5.53% | 7.61% | 0.03% | -4.37% | 1.44% | 0.95% | -0.35% | -0.20% |
| | Total Return | -0.33% | 11.51% | 7.52% | -14.14% | -3.52% | 2.51% | 11.73% | 2.26% | -0.06% | 2.17% |
| U.S. Treasury | Price Return | -0.54% | 2.84% | -6.83% | 8.99% | 3.97% | -1.63% | 0.80% | 0.29% | 1.39% | 0.65% |
| | Total Return | -2.97% | 13.23% | -6.57% | 19.63% | -1.68% | -7.79% | 2.47% | 7.45% | 2.42% | 1.00% |

### Inflation-Linked (Series-B)

| | | | Period return | | | | | Return per annum | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|
| **Index Name** | **Index Type** | **YTD** | **2010** | **2009** | **2008** | **2007** | **2006** | **1-Yr** | **3-Yr** | **5-Yr** | **10-Yr** |
| Japan Govt Inflation-Linked | Price Return | -3.74% | 26.83% | 1.98% | 14.80% | -2.13% | -14.10% | 10.97% | 11.19% | 3.70% | n/a |
| | Total Return | -3.58% | 28.23% | 3.17% | 16.10% | -1.21% | -13.41% | 12.19% | 12.45% | 4.78% | n/a |
| UK Govt Inflation-Linked | Price Return | 0.13% | 10.96% | 13.62% | -22.90% | -2.72% | 2.36% | 12.66% | -0.11% | -0.89% | 0.94% |
| | Total Return | 0.38% | 12.77% | 15.74% | -21.36% | -0.65% | 4.59% | 14.47% | 1.69% | 1.03% | 3.12% |
| US Govt Inflation-Linked | Price Return | -2.16% | 11.53% | 4.77% | 1.05% | -1.56% | -12.35% | 3.71% | 4.62% | 0.21% | -0.16% |
| | Total Return | -1.88% | 13.72% | 7.04% | 3.38% | 0.82% | -10.11% | 5.73% | 6.85% | 2.48% | 2.50% |
| World Govt Inflation-Linked | Price Return | -0.80% | 9.10% | 7.50% | -4.58% | -1.35% | -6.39% | 5.86% | 3.22% | 0.61% | 1.19% |
| | Total Return | -0.51% | 11.17% | 9.68% | -2.52% | 0.87% | -4.20% | 7.86% | 5.30% | 2.75% | 3.68% |
| Euro Govt Inflation-Linked | Price Return | 0.63% | -1.02% | 6.02% | 1.68% | -0.23% | -3.74% | 0.51% | 1.23% | 0.87% | 3.20% |
| | Total Return | 0.95% | 0.97% | 8.13% | 3.85% | 1.91% | -1.67% | 2.53% | 3.30% | 2.97% | 5.64% |

### Credit (Strategy)

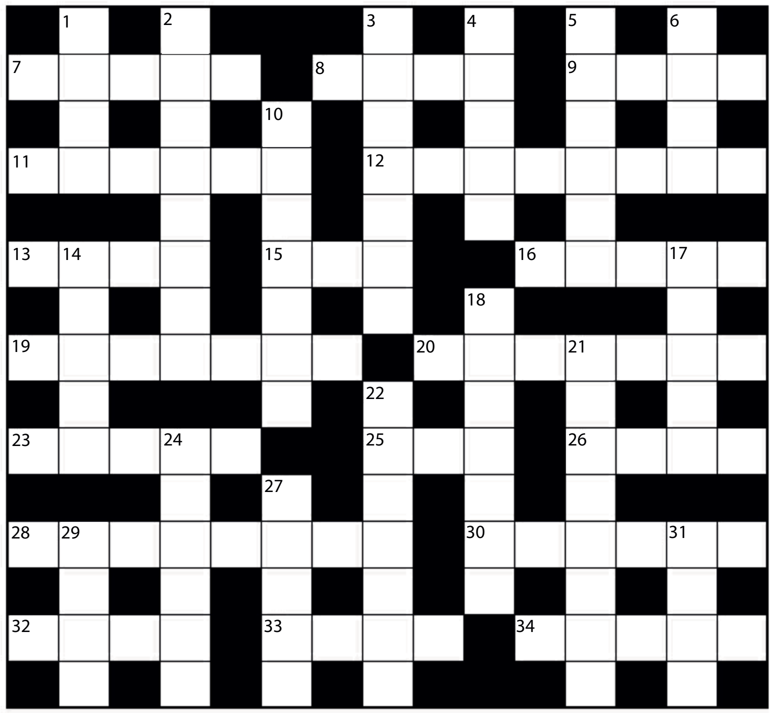
| | | | Period return | | | | | Return per annum | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|
| **Index Name** | **Index Type** | **YTD** | **2010** | **2009** | **2008** | **2007** | **2006** | **1-Yr** | **3-Yr** | **5-Yr** | **10-Yr** |
| North America 5y IG[1] | Total Return | 0.31% | 1.36% | 4.38% | -2.99% | 3.33% | 6.24% | 1.81% | 1.81% | 2.28% | n/a |
| North America 5y Hi-Vol[1] | Total Return | 0.79% | 2.22% | 14.02% | -7.28% | -0.60% | 6.75% | 3.61% | 4.09% | 2.69% | n/a |
| Europe 5y Main | Total Return | 0.60% | 0.11% | 5.71% | -0.16% | 3.15% | 3.97% | 1.05% | 2.67% | 2.55% | n/a |
| Europe 5y Cross Over | Total Return | 2.83% | 7.20% | 26.26% | -13.46% | 4.69% | 12.21% | 10.84% | 8.94% | 6.80% | n/a |

*Source: Barclays. Data as of February 28, 2011. All returns are in Euro, unless noted.*
*3-, 5- and 10-year returns are annualised. [1]Returns are in US Dollars.*

DATA SUPPLIED BY BARCLAYS CAPITAL

# TEST YOUR SKILLS

**A PRIZE INDEXING CROSSWORD**




**Across clues:**

7 Leading global index provider (5)
8 Former currency of Malta and Israel (4)
9 18th-century Scottish pioneer of political economy, _ Smith (4)
11 The west wind or a light breeze (6)
12 Global financial services company whose headquarters are in Frankfurt (8)
13 A scheme or method of action (4)
15 How **19A** is more concisely referred to (1,1,1)
16 Barrier option of the "down and out" type (5)
19 & **27D** Measure of the cost of a fund to the investor, Total _ _ (7,5)
20 The acceptance of a security for trading on a stock exchange. (7)
23 Monetary unit used by Benin, Chad and Senegal (5)
25 & **4D** _ Asset _, also known as NAV (3,5)
26 Potential that an investment will lead to a loss (4)
28 German firm involved in ETF investing (8)
30 Denoting a business, industry or equity security that is expanding (6)
32 Systematic risk of a security or a portfolio (4)
33 A separate article (4)
34 To mitigate a possible loss by counterbalancing investments (5)

**Down clues:**

1 UK share index which began on 3rd January 1984 (4)
2 What the "E" formerly stood for in **1 Down** (8)
3 Devices which hold multiple sheets of paper (7)
4 See **25 Across**
5 The capital city of the Bahamas (6)
6 Money in the form of coins or banknotes (4)
10 _ Petroleum, international energy group aka BP (7)
14 Investment company based in France (5)
17 Certificates that represent money owed (5)
18 An exceptionally fine wine (7)
21 Total amount of business done in a given time (8)
22 One who uses passive fund management products (7)
24 US stock exchange, founded in 1971 (1,1,1,1,1,1)
27 See **19 Across**
29 _-the-counter, trading of stocks directly between two parties (4)
31 Distinctive garment of Ancient Rome (4)

**Solutions will be published in the next, July/August issue of the Journal of Indexes Europe.**
**The person submitting the first correct set of answers to joieurope@indexuniverse.com will win a prize.**