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A UML REPRESENTATION OF U.S. MUTUAL FUND SERVICING AS AN ICONIC MODEL FOR SERVICING THE NEW EU EQUIVALENT – UCITS

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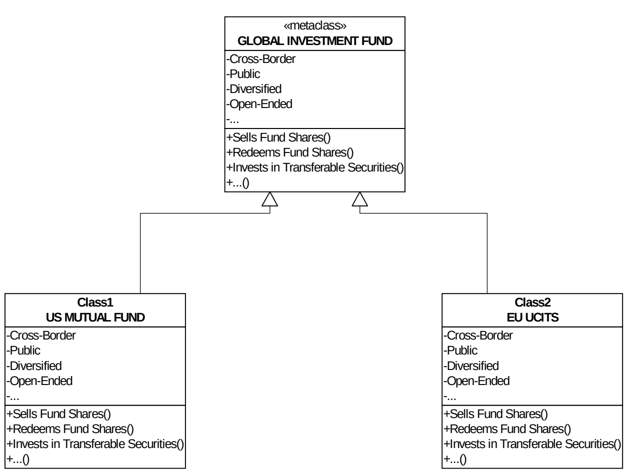
A Unified Modeling Language (UML) representation of United States mutual fund servicing is a practical, iconic model for designing the service model for the new European Union equivalent - Undertakings for Collective Investment in Transferable Securities or UCITS.

As Rom Harre¢ has argued, iconic models and their subjects are both sub-types of the same super-type. Both inherit the properties of the same super-type. An iconic model is a model that substantively resembles its subject. Humans use iconic models as prototypes when they answer questions about classes and objects in the world. When humans test those answers as explanations of the world, they are not testing linguistic propositions against worldly states. They are testing things against things. They are testing iconic models against real classes and objects.

Both the United States Mutual Fund and the European Union UCITS are sub-types of the same super-type – the Cross-Border, Open End Investment Fund. Whereas the "border" in the U.S. is state borders, the "border" in the EU is Member State borders. Since the U.S. mutual fund business is more than seventy-five years old and has grown into a $4 trillion dollar business with a well-established service model, it is a fruitful place to begin when attempting to develop a service model for EU UCITS. Unified Modeling Language (UML) is a good way to describe a service model.



Before beginning to build a UCITS service model, some historical background is needed to explain UCITS. The creation of the European Union has been a long process of economic and political evolution. The Treaty of Brussels, on July 1, 1967, created the European Community (EC). The six founding members were Belgium, France, Germany, Italy, Luxembourg and the Netherlands. On November 1993, the Maastricht Treaty transformed the EC into the European Union (EU) - an economic and monetary union, using a single European currency. Nine additional states - Ireland, United Kingdom, Greece, Portugal, Spain, Austria, Finland and Sweden – have joined. Although members of the EU, Denmark, Sweden and the United Kingdom have chosen to remain outside of the EUR zone. Other countries - Cyprus, the Czech Republic, Estonia, Hungary, Poland, Slovenia, Bulgaria, Latvia, Lithuania, Romania and Slovakia - have begun negotiations to join. The great success of the American mutual fund industry has not gone unnoticed in Europe. In December of 1985, the Council of Europe voted to create the European Union equivalent of the American mutual fund – Undertakings for Collective Investment in Transferable Securities or UCITS.

A UCITS is a "mutual fund", as the term is understood in the United States. To be a UCITS, a fund must satisfy the following EU regulatory criteria.

First, the fund's sole objective must be the collective investment of monies raised from the public in transferable securities using the principle of risk spreading through investment diversification. The term, "public" is meant to also include high, net worth individuals and institutions. U.S. mutual funds are also allowed to issue institutional investor class shares.

Second, the fund must be "open-ended"; it must purchase or redeem issue units on demand from the net assets of the fund. UCITS include UK unit trusts, and continental fonds commun de placement and societe¢ d'investissement a' capital variable. Close-ended funds, money market funds, capital protected futures and options funds, leveraged futures and options funds, property or real estate funds, and currency funds are not UCITS. This is an important difference between EU UCITS and U.S. mutual funds.

The first UCITS Directive, 85/611/EEC (amended by 88/220/EEC), established common EU standards for fund legal forms, fund structure, investment strategy, borrowing-powers, prospectus disclosure, and reporting. The legal form of a UCITS fund can either be that of a unit trust or of an investment company. Whereas a UCITS unit trust fund can issue units of various classes, a UCITS investment company fund can issue shares in multiple classes. U.S. mutual funds also issue different classes of shares. Complex UCITS fund structures - umbrella funds with sub-fund compartments or funds that have different charging structures within a single fund - are allowed. This is not different from the case with U.S. mutual funds. Since the original directive, two draft directives have followed. Neither draft directive has gotten out of the discussion stage.

The first draft directive, UCITS II, proposed the inclusion of money market funds and fund of funds, or funds that invest in other funds, in UCITS. In the U.S., a fund of funds is allowed if the investor funds are part of the same fund family as the proposed fund of funds.

The second draft directive, UCITS III, proclaims that UCITS funds domiciled in one EU member state, can be sold to the public in another EU member state without further regulatory authorization from that state. UCITS fund promoters are only required to inform the fund domicile regulator what are its EU target markets. Only UCITS marketing must comply with local requirements in that target market. This is not unlike U.S. mutual funds, where state, marketing regulations can be important. A paying agent subject to appropriate authority must be appointed in each target state. UCITS can also be marketed in non-European Union Member States such as Switzerland.

It has not been an easy process for EU member states to reach agreement regarding the establishment of UCITS. Unlike the United States, there is no European wide equivalent of the Securities and Exchange Commission. There is no European stock exchange that has the presence that the NYSE and NASDAQ have. While there is only one security settlement institution, DTC, in the United States, there are more than twelve in Europe. There are fifteen different languages to deal with. Before UCITS, European Union funds were mostly bond funds restricted to each nation state.

Despite these difficulties, European investors have quickly warmed up to equity funds. The amount of money flowing into European equity funds in May 2000 was three times higher than it was in May 1999. In September 2000, Barron's reported that Europe's equity market capitalization reached 80% of nominal 2000 GDP, as compared to 60% in 1999 and 22% in 1990. In August 2000, Moody's Investors Services alleged that there were some 12,000 registered UCITS in the European Union. Other UCITS information sources consider that number too high.

Despite the fact that American mutual fund industry sales have nearly reached a market saturation point, European financial institutions have been busy buying smaller American mutual companies. Italy's UniCredito recently bought the Pioneer Group. Netherland's ING bought ReliaStar. Behind these purchases partly lies the European Fund Promoter recognition of the applicability of the U.S. mutual fund servicing model to European Union UCITS.

Aware of the opportunities for American mutual fund companies servicing UCITS in Europe, American financial institutions, such as Mellon Trust, Chase, Citibank, Fidelity, Vanguard, Janus, and Goldman Sachs, having established themselves as funds processors in the International Financial Service Center (IFSC) in Dublin. Despite its historical prominence as the European fund, processing center, Luxembourg now faces the prospect of a challenge from Dublin for the claim to be the UCITS processing center for Europe. As Mark Tennant of Chase puts it, "Fund managers are now much more interested in where they can source funds than in where they can invest them."

Two interesting features of UCITS legislation frequently go unnoticed. The first concerns custodians; and the second concerns information technology processing.

The Investment Company Act of 1940 requires U.S. mutual funds to use a custodian. The custodian provides safekeeping, trade processing, accounting, and reporting services. Although the majority of U.S. mutual funds employ global trust banks as a custodian, a member firm of a national stock exchange or a central securities clearing system can legally be used. The EU UCITS legislation requires a UCITS fund to use a custodian/trustee that has a registered office in the same EU Member State as the fund; but, there is an escape clause. A UCITS investment company that markets more than 80% of its shares through major, European stock exchange can apply for exemption from the custodian requirement. Euroclear's FundSettle and Clearstream Banking's Vestima may be taking aim at this exception.

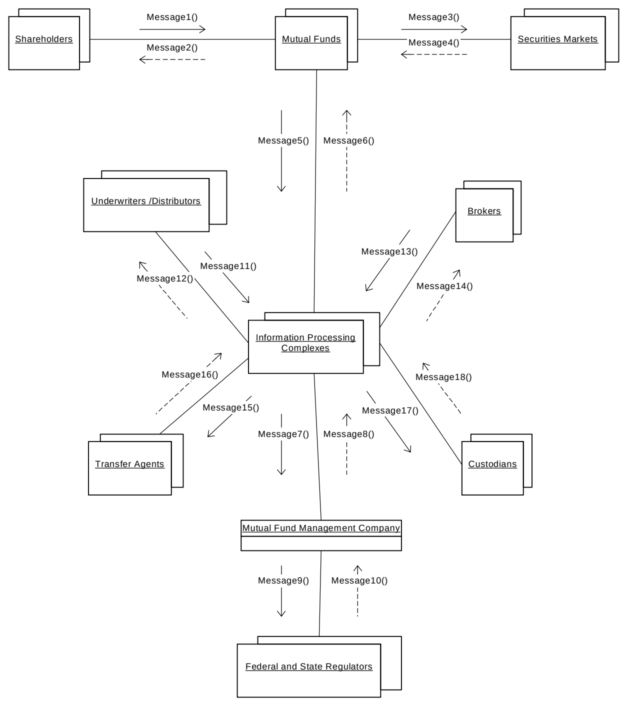
U.S. mutual fund companies have developed huge information processing complexes to do mutual fund service processing from multiple processing centers. Software companies such a Sunguard offer robust, mutual fund processing software. Like the U.S. Investment Company Act of 1940, The EU UCITS legislation does not address the location of information processing. The Luxembourg and Ireland UCITS legislation requires that UCITS fund manual administration and control occur within Luxembourg and Ireland respectively. It does not require that the actual information processing systems be there. There is considerable unused fiber optic, data communications capacity under the Atlantic Ocean between the U.S. and Dublin that could easily be used to connect U.S. mutual fund information processing complexes to UCITS fund management companies. S.W.I.F.T., then international bank message network, will add Fund Processing Messages to its ISO 15022 Security Messages in 2001. The Internet, which has long been a major information vehicle for U.S. mutual funds, is becoming an important information vehicle in Europe for UCITs. Mellon Trust is the administrator for the Prudential UK, Egg Internet Fund Supermarket. Chase has just started Fund-Hub with Investia; and Brown Brothers Harriman has begun Fund WorldView. Both Fidelity and Citibank are planning Internet, European fund supermarkets.

The U.S. Mutual Fund Servicing Model is built around ten components. Mutual Fund Shareholders join the mutual fund using an Underwriter or Distributor. A Transfer Agent services the mutual fund shareholders. Brokers do the securities trades for the mutual fund. A Custodian safe keeps the assets of the mutual fund and provides due diligence reporting. A Mutual Fund Management Company runs the mutual fund using a Mutual Fund Information Processing Complex. Federal and State Government Regulators regulate the mutual fund.

The EU UCITS Servicing Model is built around ten components. UCITS Shareholders join the UCITS fund using an Underwriter or Distributor. A Transfer Agent services the UCITS shareholders. Brokers do the bond and equity trades for the UCITS. A Custodian safe keeps the assets of the UCITS and provides due diligence reporting. If more than 80% of the UCITS shares are on major European stock exchanges, a custodian is not legally required. A Pan European Fund Clearing Service, like Euroclear's Fund Settle or Clearstream's Vestima could be used. A UCITS Management Company runs the UCITS using a UCITS Information Processing Complex. The Information Processing Complex does not have to be in the European Union. It could be in the United States. European Union and Member State Government Regulators regulate the UCITS.

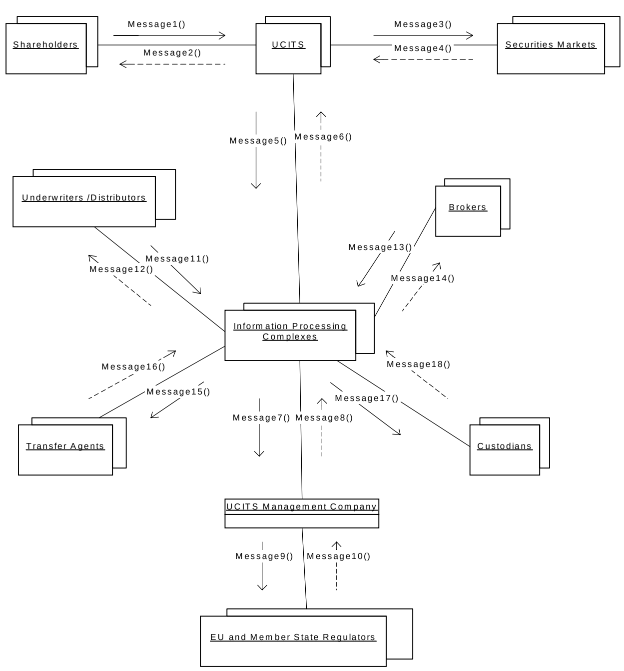
A Pan European Fund, Clearing Service would poten-

U.S. MUTUAL FUND
SERVICE MODEL

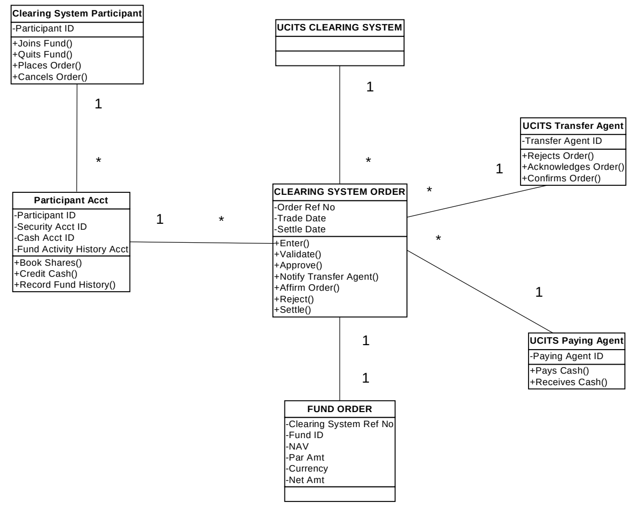


tially use three types of accounts – a securities clearing account, a cash clearing account, and a fund activity history account for reporting purposes. To minimize the chance of a transaction failure, the service would need to reserve the shares and cash about to be sent to the Transfer Agent when shares are subscribed and redeemed. The handling of corporate action events affecting the fund's underlying bonds and equities is a very important part of such a service. Fund reporting of fund net asset value (NAV) would involve three European time zones.

EU UCITS SERVICE
MODEL



UCITS PAN
EUROPEAN
CLEARING
SYSTEM



In conclusion, A Unified Modeling Language (UML) representation of United States mutual fund servicing is a practical, iconic model for beginning the design of a service model for the new European Union equivalent - Undertakings for Collective Investment in Transferable Securities or UCITS. UCITS present an important market opportunity for both European and American financial institutions.

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