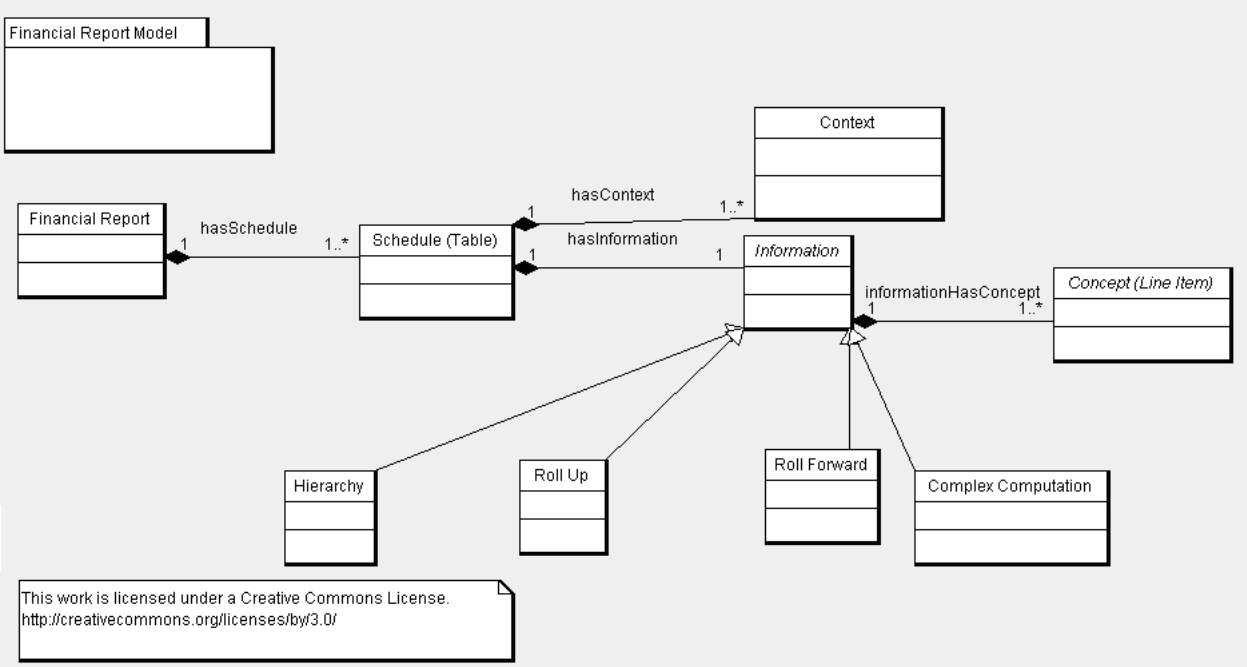
Financial Reporting Model: (Domain model)



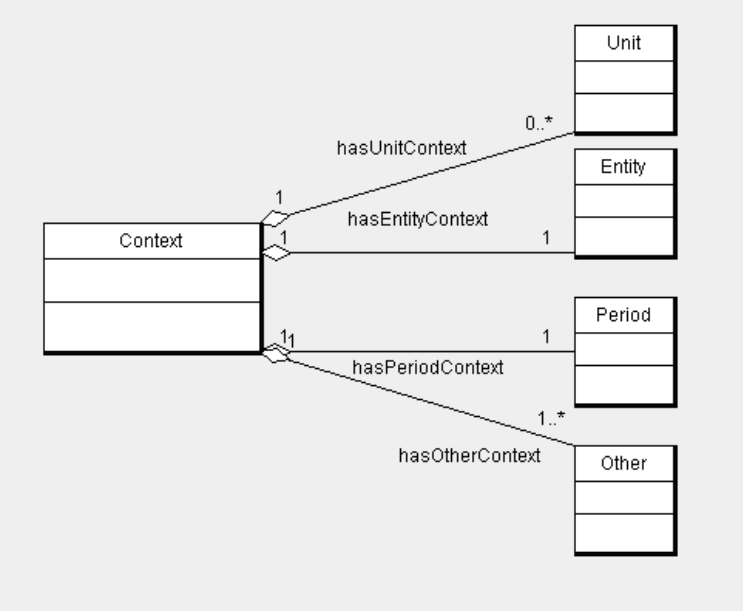
This is the high level **financial reporting domain model**. A financial report is made up of pieces called "**schedules**" or "tables". A balance sheet, an income statement, a list of company directors, a list of accounting policies are examples of schedules.

Schedules have two pieces: context and information. **Context** is things like the entity, the period, the name of the director, whether the information is audited, whether the information is budgeted. **Information** is what gets reported, it can be broken down into concepts. Information is not random. Rather, the concepts have common relations in financial reporting: **roll up**, **roll forward**, **hierarchy**, and **complex computations**.

[CSH: One thing missing is the notion that the schedules in a financial report have an order to them.]

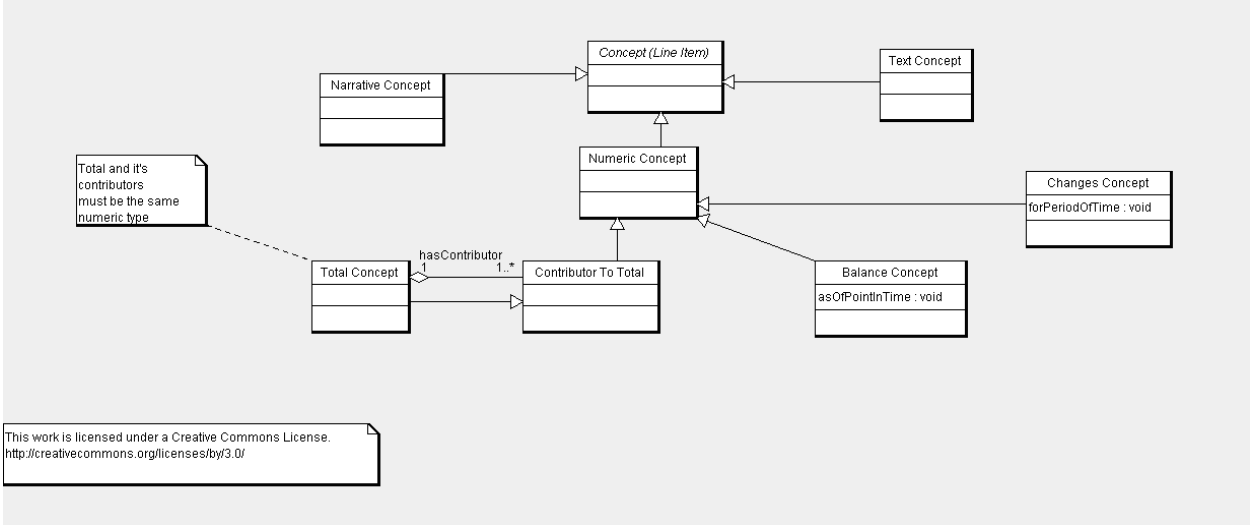
[CSH: Financial reports also have "comments", i.e. the things implemented as XBRL Footnotes. It seems to me that the fact that this feature is implemented in XBRL is ample evidence that they are part of the financial reporting domain.]

Context:



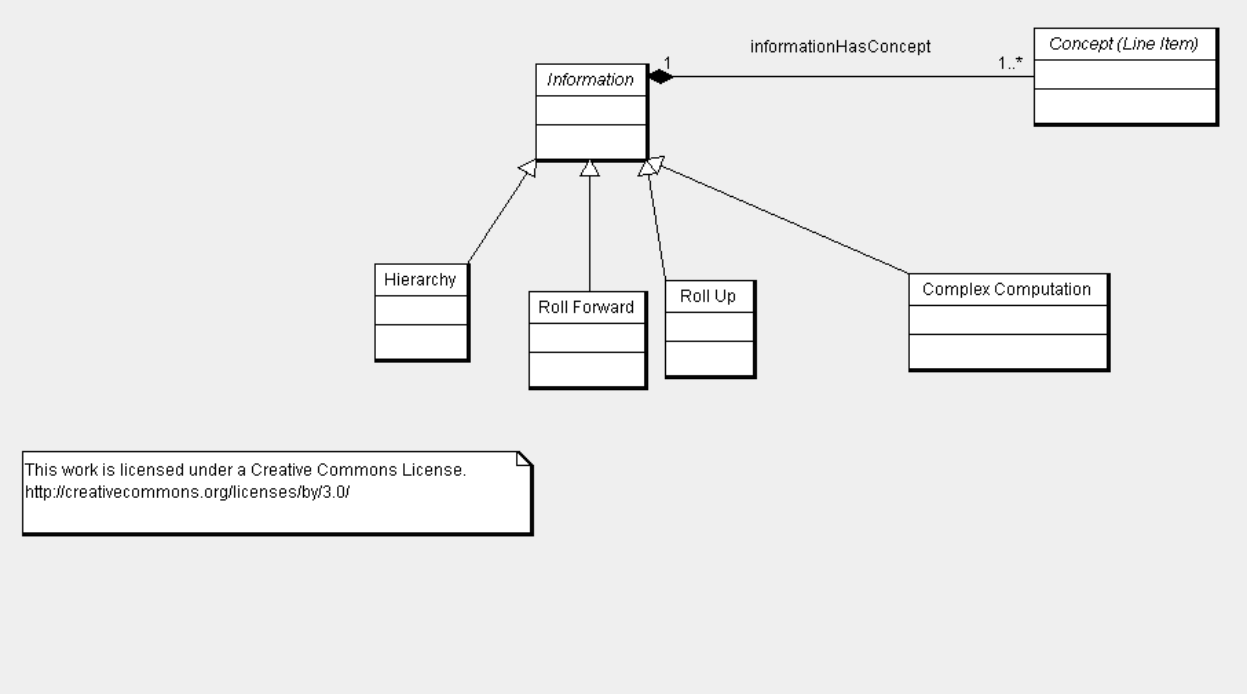
Information always exists within some **context**. A context is not the information reported, rather it is information about the information reported. Common contexts (defined by XBRL so they MUST be modeled in this way) include the entity which reports the information, the period to which the information relates, and if the information is numeric, the units of that numeric information. Beyond that, information may have other context. For example, these are other types of context: the name of a director; the classes of some concept such as property, plant and equipment; a types of debt; and so forth.

Concept:



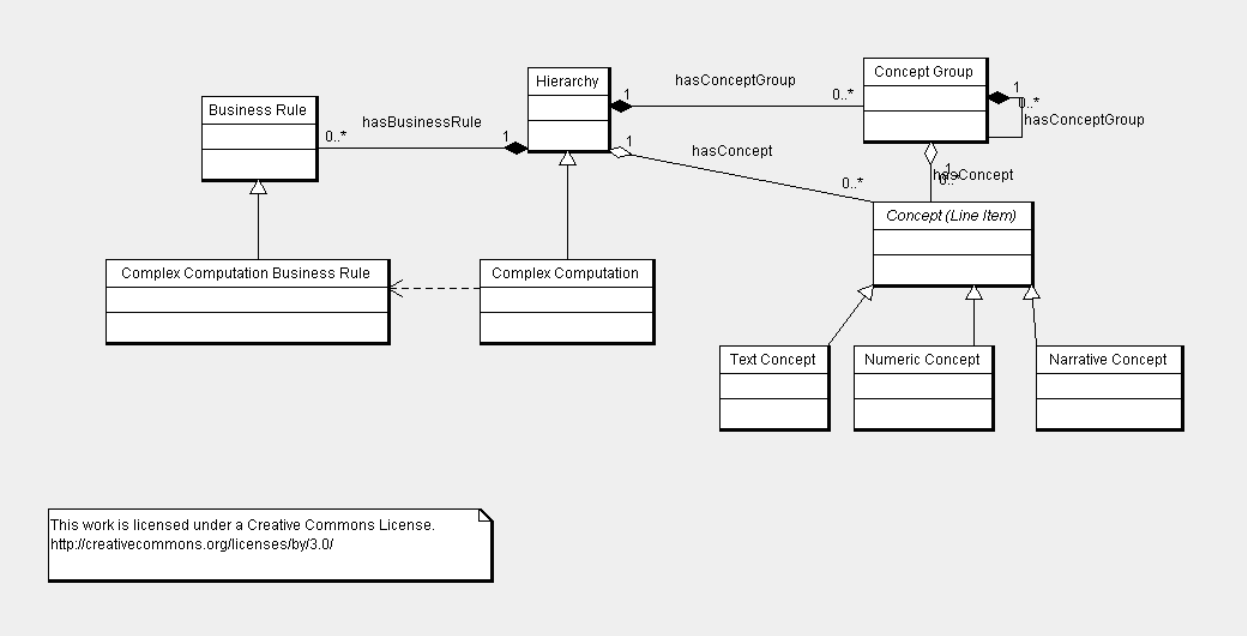
A **concept** is information which is reported. For example, the balance of an account such as “Cash”, the value of a nominal account “Net Income”, or a the “Number of employees as of some point in time” are things which can be reported. There are different types of concepts, each type having certain characteristics. Basic types of concepts are narrative, numeric, and text. Types of numeric concepts include total concept, contributor concept, balance concept, changes concept. A concept can be different types at different times, depending on which information model the concept exists within.

Information Model:



An information model is a pattern of relationships between concepts. There are common patterns. These common patterns include: roll up and roll forward. Anything which is not a **roll up** or a **roll forward** is a hierarchy. A complex computation is a type of hierarchy. As such, by definition, everything in a financial report fits into one of these patterns. Other patterns might be discovered in hierarchies. If these patterns are discovered, there characterizes can be articulated in the form of other patterns.

Hierarchy:



By definition, anything can be described in terms of a hierarchy, it is simple a set of relations of some sort. Sub classes of concepts which can participate within a hierarchy are: text, numeric, and narrative. A concept grouper has no semantic meaning and can never communicate a value, they are used to organize text, numeric, and narrative concepts.

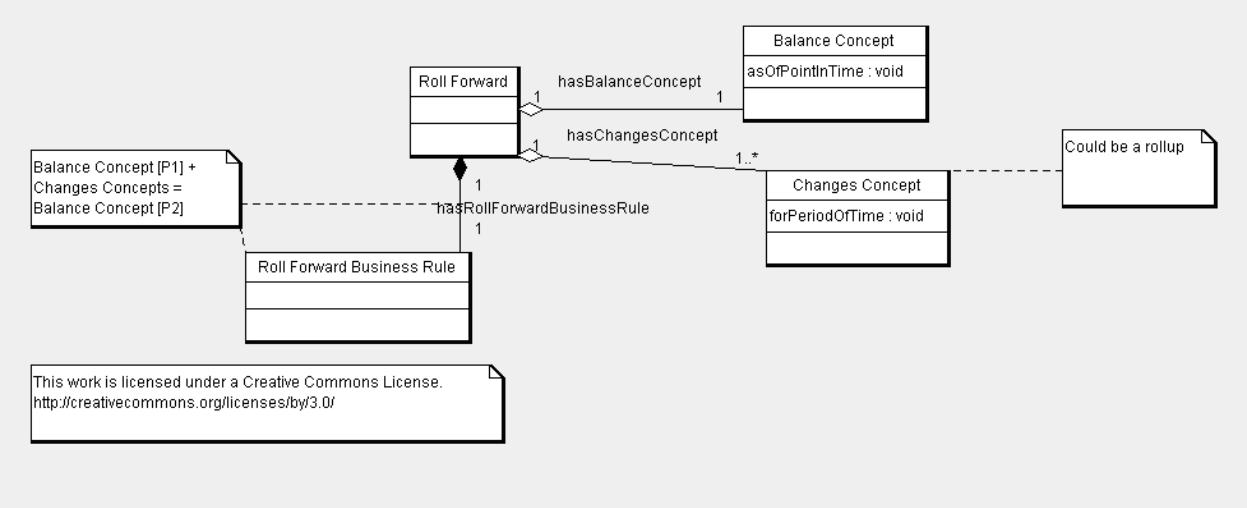
If an information model pattern cannot be described by some other information model, it is by definition a hierarchy.

A hierarchy can have business rules which describe the relations between the concepts.

A set of complex numeric concepts can be explained by business rules, this is called a complex computation subclass of hierarchy.

A hierarchy can be extended by adding additional concepts of any type. A hierarchy can also be extended by adding any business rules which support the relations between the concepts within the hierarchy.

Roll Forward:



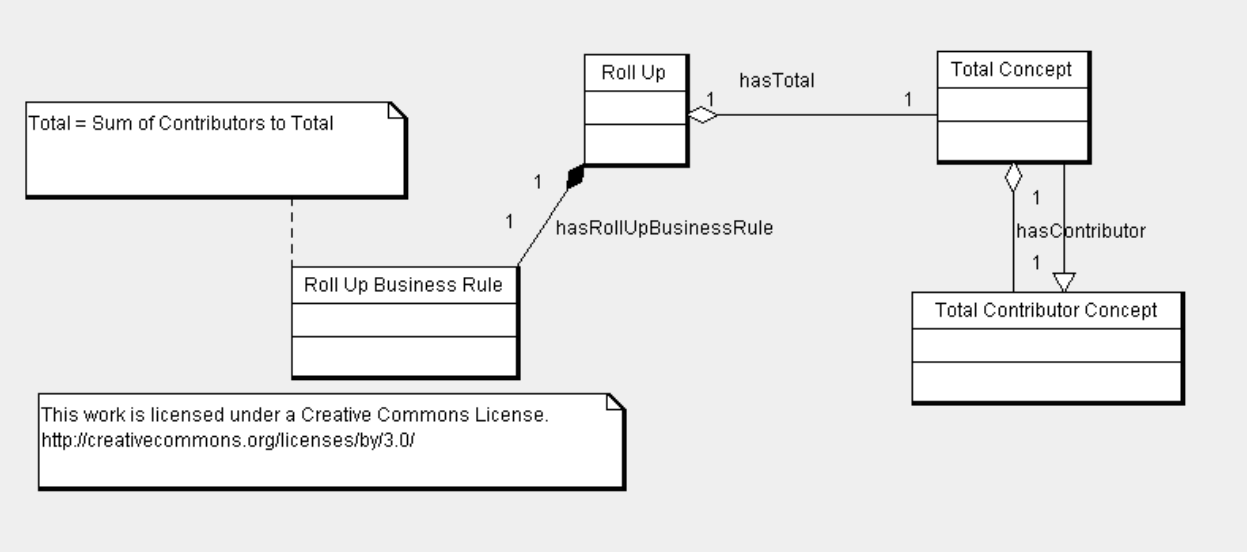
A roll forward is a special type of numeric relation whereby a balance concept (a type of numeric concept which is always as of a point in time) is reconciled by a set of changes concepts (a type of numeric concept which is always for a period of time).

The basic relation is: balance [Period 1] + changes = balance [Period 2]. A business rule enforces this computation within the information model.

A roll forward may have any number of changes concepts (it usually has one today in most taxonomies) and the changes concept can have any number of sub changes, basically a roll up of changes. Said another way, a changes concept can be one concept or a roll up of a set of changes concepts.

A roll forward can ONLY be extended by adding additional changes concepts or sub changes concepts.

Roll Up:



A roll up is a simple summation of concepts. A + B + *N* = Total. A roll up can be nested within another roll up.

A roll up can ONLY be extended by adding additional Total Contributor Concepts.