A new generation of non-debt fixed-income finance

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Abstract

Purpose - The development of standardized fixed-income securities and organized secondary markets in which to price and trade the securities is a widely recognized factor in the emergence of modern developed economies. However, the ongoing global financial crisis has exposed the existence of a fundamental and costly conflict between lender and borrower property rights when debt is securitized that has imperiled some fixed-income markets in their present form. This paper suggests a new non-debt concept for fixed-income finance that avoids the conflict inherent in securitized debt.

Design/methodology/approach - The paper considers how to build the foundation of non-debt fixed-income technology on property law instead of contract law.

Findings – Fixed-income products based on the new technology expose investors to lower loss risk than investors incur with analogous debt-based products. Such products could lower the cost of fixed-income finance and contribute to the global restoration of fixed-income market liquidity.

Research limitations/implications – Variations in property law across venues imply that the new financial technology is not implementable in all legal systems.

Originality/value - The new financial technology could represent an opportunity for the Islamic financial industry to expand its fixed-income horizons in the global financial markets. The upside both within and beyond the Islamic community could be dramatic.

Key words Capital structure, Islamic finance, All-equity, Lease-based, Ownership interest, Property rights

Paper type Conceptual paper

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1. Introduction

The persistent worldwide financial crisis that began in 2007 has produced empirical evidence pointing to a significant structural weakness in the foundations of financial engineering: in particular, the problem that securitization frequently doesn't work well when applied to risky debt. For example, the secondary market value of trillions of dollars of securitized U.S. home mortgages has been in serious doubt for more than five years, and the uncertainty is viewed by many as the key factor underlying the inability of the U.S. real estate market to break out of its multiyear state of gridlock.

The reason for the structural weakness goes to the foundation of the concept of default protection in debt finance: lender default protection creates a potential for conflicting claims on ownership rights in financed property. The potential conflict becomes actual in event of a financing default, leading to costly and lengthy litigation, the purpose of which is to resolve, on a case-by-case basis, an inherent conflict between the political economic need to create property value in general by protecting ownership rights and the need to avoid compromising owner ability to generate value by voluntary alienation of the ownership rights. As observed in the case of U.S. residential mortgages, legal resolution of the conflict frequently becomes far less tractable once debt has been securitized.

This suggests four possible approaches to solving the problem created by default protection in securitized debt: (1) modify how the legal system resolves conflicting owner and financier claims on ownership rights in financed property, (2) restrict the universe of applicants that are allowed access to future credit markets, e.g., to finance home purchases, (3) abandon securitization technology entirely, and (4) search for innovative property ownership structures that avoid any potential for conflicting claims on ownership rights but can support fixed-income finance.

All four approaches have practical drawbacks. Approach (1) exposes the world's primary and secondary financial markets to the law of unintended consequences in the form of market revaluations of legal support for property rights. Approaches (2) and (3) depress market prices by altering supply-and-demand equilibria via demand reductions. Approach (4) requires the markets to embrace a new and unfamiliar type of asset capital structure. The rest of this paper focuses on Approach (4).

Capital structures that avoid any potential for conflicting claims on ownership rights are necessarily all-equity capital structures, since they cannot include debt. Although it does not follow that the capital structures are necessarily shari'ah-compliant, Approach (4) offers a significant payoff to Islamic banks in terms of their ability to compete globally in financial markets if versions of the capital structures are (or can be made) shari'ah-compliant.

Additionally, Approach (4) shifts the focus of research in non-debt finance away from technology based on contract law and towards technology based on property law – i.e., away from a legal environment whose resources have been thoroughly exhausted over the last two centuries and into virtually unexploited legal territory. This is an innovation in methodology for both Islamic and conventional finance.

2. Ownership structures

The possibilities with regard to an all-equity capital structure depend critically on the concept of property ownership. In particular, property law determines the scope of variety in debt-free capital structure. This leads to a fork in the analytical road, because there are two fundamentally distinct approaches to the concept of property ownership: the civil law concept pioneered in ancient Rome, and the Anglo-American concept that originated in feudal England.

Within the framework of systems based on Roman civil law, once the concept of property is defined, the totality of properties within a society can be viewed for illustrative purposes as a collection of boxes, in which the contents of each box consists of the property rights associated with the property (Merryman 1974, p. 927). For legal purposes, each box has an identifiable owner, and that ends the discussion of ownership. The property rights associated with each particular property can be dispersed across a group of entities other than the owner, but only through contract-like arrangements with the owner.[1]

By contrast, the Anglo-American (henceforth, "A-A") framework forgoes the metaphorical ownership "box" to contain the property rights and focuses instead on the definition of legal property interests in terms of the associated property rights. In particular, once the concept of real property is defined, a property can be viewed for illustrative purposes as a field of haystacks in which the individual property rights associated with the property are represented by the hay strands.[2] Although the hay strands are not objects that can be individually owned and sold, those bundles of property rights that have been organized into individual "haystacks" are distinct objects that can be owned and sold separately from the other haystacks in the field.[3] The bundles of property rights that can be owned and sold as individual objects are the legally permissible ownership interests in the original property.[4]

Accordingly, in this legal framework it is not necessary that a single entity own the property outright. Instead, property ownership can consist of a collection of separate ownership interests, each of which consists of a respective bundle of property rights in the property, and which are defined in such a way that the respective bundles of rights essentially do not overlap.[5]

The standard example of a permissible ownership interest is the fee simple interest (also known as "fee simple absolute interest") in a parcel of real estate. This represents ownership of the parcel for all time, including ownership of the space above the property and everything attached to the ground underneath the property down to the center of the Earth, including the right to alienate property rights in the parcel, including ownership interests, e.g., by sale, lease, gift or bequest. The expression “fee simple interest” can also signify an ownership interest in which the ownership of minerals beneath the parcel has been detached from the fee simple interest and is held by another owner as a distinct ownership interest in the parcel.[6] The law can also impose restrictions on contract-like alienations of property rights, e.g., in the U.S., lease terms cannot extend indefinitely into the future.

One important methodology for generating ownership interests of increasing complexity from existing ownership interests is to separate an existing ownership interest in a real estate parcel into at least two non-overlapping ownership interests by making the original ownership interest subject to a condition determinable. For example, a fee simple ownership interest can be qualified by forbidding the sale of alcoholic beverages on the premises and creating a corresponding second ownership interest that confers possession of the property on the holder of the second interest once a verifiable sale of alcoholic beverages takes place on the premises.[7] In essence, this legal restriction on the use of the property separates the original ownership interest into two ownership interests that can be bought and sold independently of each other.

The insertion of restrictions into ownership interests is qualitatively different from analogous contractual restrictions because the restrictions are embedded into the fabric of ownership definition. The transfer of possessory rights from the first ownership interest to the second ownership interest takes place automatically once the ownership restriction is transgressed. The ownership interests and condition determinable are diagrammed in Figure 1.

A myriad of determinable conditions can be used to implement applications of ownership interests to a variety of conceivable objectives, including inheritance. For example, Individual A can issue an ownership interest in a parcel of real estate to Individual B that includes the restriction "during the life of Individual B," and simultaneously issue another ownership interest in the same parcel to Individual C that includes the restriction "upon the death of Individual B." In this way, the first individual can arrange for two heirs to benefit separately from economic opportunities that arise from one real estate parcel.[8] In fact, the A-A framework for property ownership developed in response to a need to deal with the problems of complex legal succession to landed estates in feudal English society.[9]

A pair of ownership interests analogous to the previous example, but with more potential for financial and commercial applications, involves a selection of a specific future date, insertion of a restriction into an existing property interest that terminates the rights of the interest holder to possession of the property and benefits therefrom upon the specified date, and creation of a corresponding additional ownership interest in the property with rights to possession and economic benefits therefrom that commence immediately upon termination of the possessory rights included in the other ownership interest. These two illustrative ownership interests are known as a *term of years interest* and a *remainder interest* respectively, cf. Note 7.[10] The two ownership interests and the condition determinable are diagrammed in Figure 2.

3. Non-debt home finance

The dual objectives of home acquisition finance are (1) to provide a potential home buyer with all property rights needed to possess (e.g., as in *occupy* or *use*) a parcel of residential property immediately and indefinitely into the future at the buyer's discretion and (2) to enable the buyer to acquire an ownership interest in the parcel at some point that includes all property rights related to use and disposal of the parcel including voluntary alienation of those rights at the buyer's discretion.

Within the framework of property law based on Roman law, this severely constrains the possible ownership structures if acquisition of the parcel is financed without debt. In particular, the assignment of a permanent possessory interest in the parcel to the home buyer implies that the financier cannot have any property rights in the parcel other than outright ownership or an indirect ownership interest via equity in a partnership or corporate entity that fulfills the legal role of property owner. Accordingly, Objective (2) of home finance implies that a long-term contract must exist that enables the home buyer to supplant the partnership or corporate entity as the property owner once the financing has been retired. It follows that a long-term purchase contract is an inevitable feature of non-debt finance of home acquisition within the framework of a legal system based on Roman law.

The possibilities for non-debt finance are more varied within the framework of A-A property law. For example, it is possible to avoid any role for long-term purchase contracts in non-debt finance.

As an exemplary illustration, consider a property ownership structure for a parcel of real estate comprised of three ownership interests. One of the ownership interests is a term-of-years interest, the nature of which has already been discussed above. The other two ownership interests can be viewed as analogous to the remainder interest concept that was discussed above with the term-of-years interest, but with the inclusion of a corresponding pair of restrictive qualifications making them subject to a condition determinable. In this situation, the condition determinable that we have in mind is whether a failure occurs in the home buyer's fulfillment of the commitments he makes with regard to servicing and retiring the financing.[11]

In order to suggest a more precise description for the condition determinable, it is necessary to propose an exemplary mechanism by which a financier can finance the acquisition of the real estate parcel and an associated mechanism by which the home buyer can service and ultimately retire the financing. One exemplary mechanism through which to implement the financing is a purchase by the financier of the term-of-years interest in the parcel. An associated exemplary mechanism that enables the home buyer to service and retire the financing as well as to possess the property is a lease of the real estate parcel from the financier (i.e., landlord) to the home buyer (i.e., tenant) for the duration of the term-of-years interest. In conjunction, the mechanisms implement Objective (1) of home finance during the economic life of the term-of-years interest.

Based on these mechanisms, it is possible to offer a more precise exemplary model for the condition determinable discussed in general terms above. For example, one possible model for the condition determinable is whether an event of lessee default occurs during the operational life of the term-of-years lease.[12]

With this model for the condition determinable, the other two ownership interests can be described more precisely as follows: (a) a primary qualified remainder-like ownership interest, with rights to possession of the parcel and economic benefits therefrom that commence immediately upon termination of the possessory rights included in the term-of-years ownership interest, provided that the condition determinable has not occurred, and (b) a secondary qualified remainder-like ownership interest, with rights to possession of the parcel and economic benefits therefrom that commence immediately upon termination of the possessory rights included in the term-of-years ownership interest, provided that the condition determinable has occurred.[13]

The remaining mechanisms needed to implement and maintain the financing are as follows: a purchase by the home buyer of the primary qualified remainder-like interest, and a purchase by the financier of the secondary qualified remainder-like interest. With the completion of these purchases, an all-equity ownership-based capital structure for the real estate parcel is established, along with a lease-based mechanism to service and retire the financing.[14] The capital structure, including the lease-based financing, is diagrammed in Figure 3.

Once the ownership-based capital structure and term-of-years lease are established, no other transactions are ever necessary. Provided that the home buyer complies with the lease covenants, the home buyer's purchase of the primary qualified remainder-like interest ensures that the capital structure implements Objective (1) of the financing without restriction as soon as the capital structure is established. Similarly, provided that the home buyer complies with the lease covenants, the capital structure implements Objective (2) of the financing upon the expiration of the term-of-years lease.

Of course, there is always some risk that the home buyer will not fulfill the lease obligations. In that event, the financier terminates the lease and recovers all possessory rights to the property, along with expected reductions in the time cost and out-of-pocket expense that financiers typically endure in the case of analogous defaults on debt. On the other hand, since the financier's loss risk is reduced *ex ante*, the expected incremental benefit generated by the reduction in loss risk can be expected to accrue to the home buyer in the form of lower financing service costs that reduce the likelihood of a home buyer default. Table I contrasts the features of new generation non-debt home acquisition finance with those of conventional mortgage finance.

The closest analogues among current Islamic financial products to the new generation non-debt home acquisition financings are the ijara sukuk. In fact, were the definition of sukuk extended beyond the framework of contracts to include securitized real estate ownership interests, then any shari'ah-compliant implementation of the financier's ownership interest in Figure 3 would become an example of ijara sukuk. Moreover, the scope of potential A-A property law application to Islamic finance is greater than the single application to home acquisition finance proposed here and extends beyond the ijara framework.

4. Non-debt finance of other types of assets

The non-debt ownership structure described above for residential real estate can be created within the framework of A-A law to finance other types of assets, including commercial real estate and, at least within some U.S. jurisdictions, many examples of tangible personal property, including aircraft and aircraft engines, railroad cars and railroad engines, ships, solar heating and cooling systems, and even works of art. Not surprisingly, implementation of the financial technology is more complicated in the case of personal property than in the case of real property and is outside the scope of this paper. However, the conceptual framework discussed above for the case of home finance can be extended to each of these cases.[15]

Property law constraints do exist on the types of assets for which these non-debt ownership structures can be created. Most importantly, the asset must exist when the ownership structure is created; the structure cannot be created for assets that are merely anticipated to exist at some future time. Moreover, the object of the ownership structure must be specific and unambiguous: the structure cannot be created for an unspecified generic example from a fungible species of asset.

5. Conclusion

This study presents a class of ownership structures derived from Anglo-American common law that can serve as the basis for a system of asset-based non-debt finance. Financial structures enabled within this framework avoid long-term contractual arrangements between property buyer and property financier other than long-term lease of financier-held ownership rights by the property buyer.

The new class of financial structures has fewer, and simpler, long-term contractual-like provisions than standard examples from shari'ah-compliant finance and conventional debt finance. Accordingly, the new financings are securitizable under more general economic circumstances than their analogues from either of these better known financial classes. This feature can be expected to translate into lower all-in financing costs for property buyers.[16]

Although the new financings are debt-free, and in fact are structurally incompatible with debt, it is unknown whether they can be made shari'ah-compliant. On the other hand, the basic structure is robust to modification. Accordingly, experts in shari'ah jurisprudence could introduce a significant amount of variation into the financial structure without unduly disrupting the economic advantages discussed herein.

Thus, this study refrains from making suggestions that are unnecessarily specific about enabling embodiments of the structure and any suggestions at all regarding the process by which the structure is enabled.[17] Instead, the author is content with an expression of hope that some experts in shari'ah compliance will find that the new financial structure warrants closer examination by institutions within the Islamic financial community.

Notes

1. The opportunities for individuals to participate in the economic benefits of property ownership can be expanded by allowing corporations and partnerships to fulfill the role of property owner. However, this does not change the all-or-nothing characterization of direct property ownership.
2. This illustration of the contrast between the respective property ownership concepts of Roman-based civil law and A-A common law is a variation on the illustration in Merryman (1974, p. 927).
3. The A-A ownership structure emerged from the framework of English common law. The structure is available throughout much of North America, where the concept continues to modernize. On the other hand, some English-derived legal systems have retreated from implementation of the concept, beginning early in the twentieth century with the passage in England of the Property Reform Act of 1925. Scotland followed recently with the passage of the Abolition of Feudal Tenure etc (Scotland) Act 2000 and Ireland with the passage of the Land and Conveyancing Law Reform Act 2009.
4. Merryman (1974, p. 927) points out that, within the Roman law framework, it is theoretically conceivable that an entity could continue as the legally recognized owner of a property after ceasing to hold any legal interest in the associated property rights by retaining title to the "box" that represents legal ownership. By contrast, within the A-A framework, the legal connection between a property and an ownership interest holder in the property terminates once the owner ceases to hold any legal interest in the associated property rights.
5. Modern economic theory tends to blur the distinction between property and individual property rights, e.g., see Coase (1960), which inaugurated the conceptual approach of facilitating transactions in individual property rights to determine property utilization. One problem with

this approach is that every future difficulty that could result from regarding property rights as actual property disappears into a catchall category labeled transaction costs. These costs need only be priced in order for the future difficulties to be viewed as solved, leaving the actual problems to be resolved in the future on an as-needed basis, e.g., by the legal system. As the severity of the ongoing financial crisis suggests, variations on this approach to determination of property utilization may warrant consideration.

6. Such detachments became a familiar feature during the settlement of the western United States in the nineteenth century. Western lands presented settlers with resources for farming and ranching, but they also included vast mineral resources that appealed to a separate economic constituency. Accordingly, the purchase of a fee simple absolute interest in land by an entity interested in either type of resource and subsequent resale of the ownership rights to the other type of resource became a financing methodology for the acquisition of resources of long-term interest to the acquiring entity. From the perspective of government, the detachment of mineral ownership rights represented a solution to the problem of maximizing the wealth returns to society by creating an opportunity for market mechanisms to facilitate the migration of western resource ownership rights to economic constituents who were most likely to maximize the economic potential of the respective resources.
7. Use restrictions are a familiar feature of real estate bequests. For example, the nineteenth century American poet Henry Wadsworth Longfellow gifted about two-fifths of Harvard University's Soldier's Field to Harvard in 1870 with a deed restriction on construction that has thwarted the university on more than one occasion from developing the location, e.g., in the 1960s as the site for the John F. Kennedy Presidential Library (The Harvard Crimson 1962) and more recently as a site for university undergraduate housing (Tartakoff 2005). Similarly, Fine

Hall at Princeton University, home of the university's mathematics department, was deeded to Princeton in 1931 with a provision that ownership was contingent on the university's mathematicians and mathematical physicists having individual “studies” in the building. Accordingly, the theoretical physicist Albert Einstein acquired a “study” in Fine Hall when he arrived at Princeton in 1933 (Aspray 1985).

8. The ownership interest issued to Individual B is known as a *life estate* and the ownership interest issued to Individual C as a *remainder interest*. The question of what happens in the example if Individual B predeceases Individual A or Individual C predeceases Individual B is outside the scope of this paper, which is concerned with applications of property law to finance and commerce.
9. Despite the historically familiar role of A-A property law in facilitating the simultaneous development of agrarian and mineral resources in the U.S. West, most people familiar with this body of law regard it as part of estate law and view its scope of application as confined to facilitating the solution of problems related to inheritance. The rationale for this attitude, if any, is beyond the scope of this paper. However, recent developments in securitization technology mesh smoothly with this body of property law and can be expected to expand the scope of application to the areas of finance and commerce. See Graff and McKevitt (2011) for a complete study of the relevant securitization technology developments.
10. See Borron (2002) for in-depth discussions of these and related aspects of A-A property law.
11. This is an exemplary model for the class of ownership structures introduced in Graff (2000). The number of ownership interests in this exemplary capital structure can be reduced to two by combining the two exemplary conditions determinable into a single condition determinable. However, issues beyond the scope of this paper suggest that the reduction might be inadvisable.

12. An economically related although technically distinct model for the condition determinable is that the lease not be cancelled during the life of the term-of-years ownership interest.
13. See Graff and McKevitt (2011) for the concepts of primary and secondary qualified ownership interests.
14. The securitized lease-based financing can be viewed as a naturally-arising form of synthetic debt, i.e., synthetic debt that can be created without recourse to financial derivatives or other contracts.
15. The United States is a federation of sovereign states, and property law is crafted on a state-by-state basis by the respective state governments. For the most part, interstate property law variations are not a cause for concern in the case of applications to ownership-based non-debt finance of real estate. However, the situation is different in the case of applications to non-debt finance of personal property. See Graff and McKevitt (2011) for more details.
16. Prior to Graff (2006) there was no general definition of securitization, only ad hoc definitions aimed at selected applications. Graff (2006) and Graff and McKevitt (2011) introduce a new general definition that shifts attention from the asset being securitized to the effect of securitization on asset investment characteristics and discuss inadequacies of earlier definitions remedied by the new definition. Table II contrasts the new definition of securitization with the earlier definitions.
17. For example, El-Gamal (2000) and El-Gamal (2008) are explicit that processes matter in determining shari'ah compliance and that enablement is best left to compliance experts.

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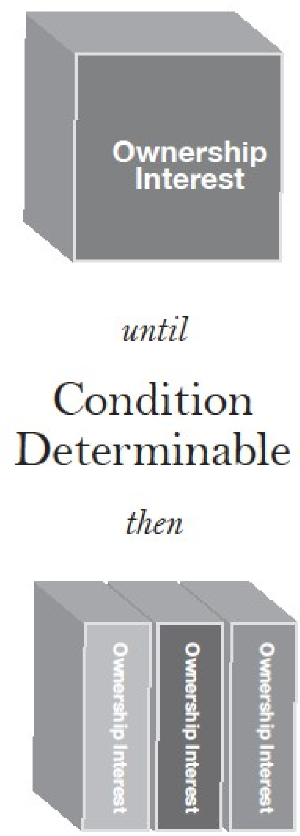

Figure 1. Anglo-American property law allows complex ownership interests

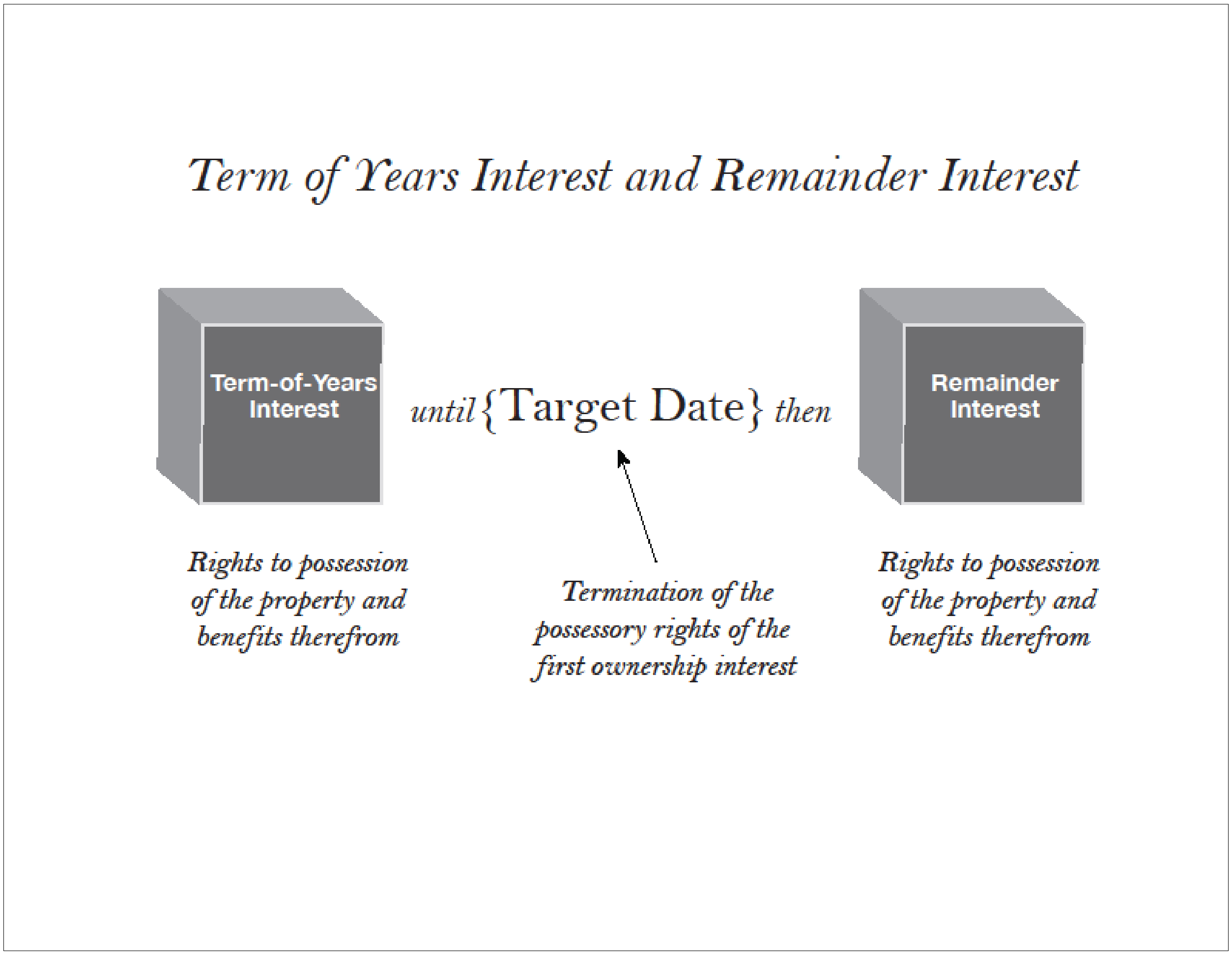

Figure 2. The term-of-years/remainder interest structure is a simple all-equity ownership structure with financial applications

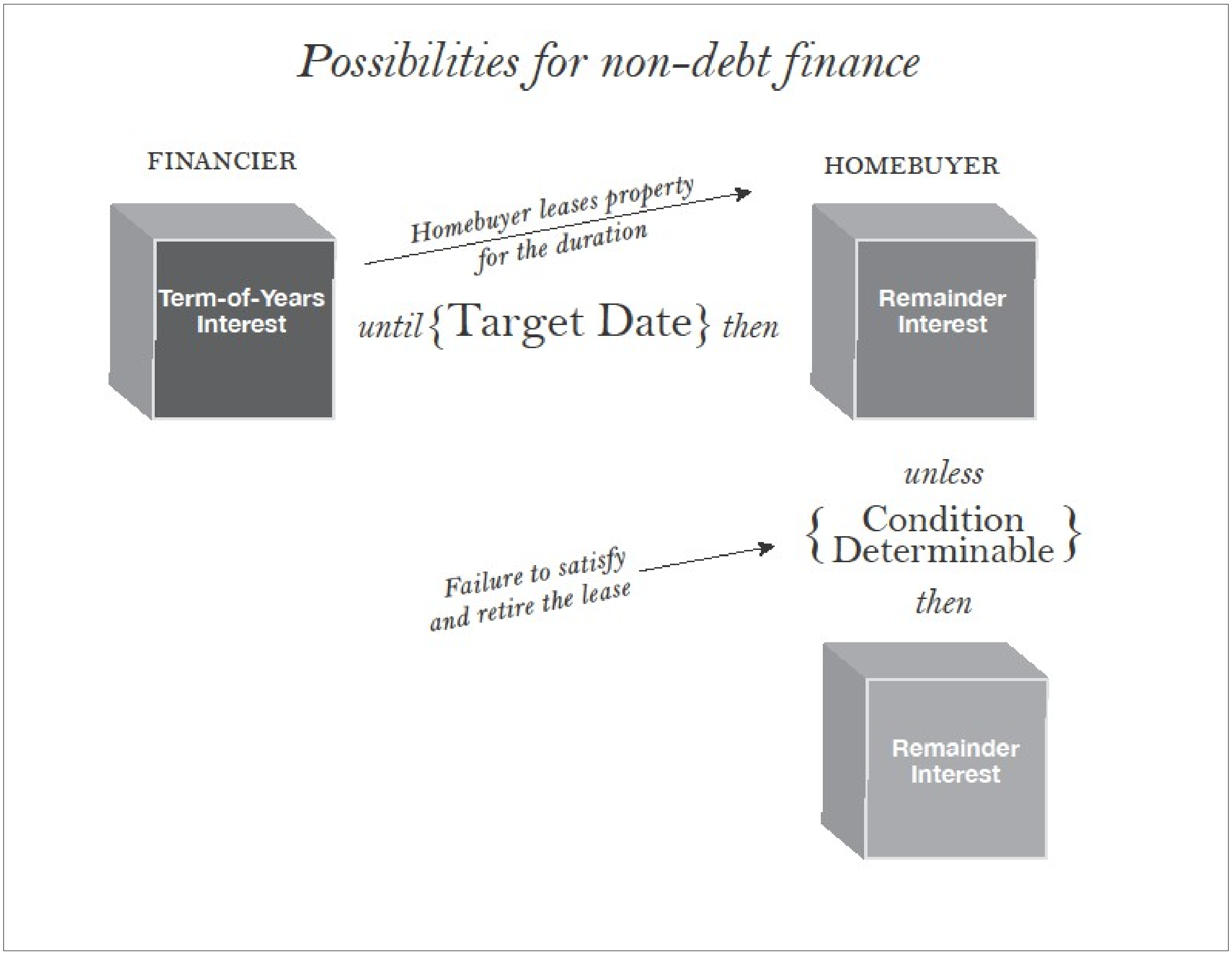

Figure 3. A-A property law facilitates lease-based debt-free home acquisition finance

Table I. Contrast between new generation home acquisition finance and conventional mortgage finance

	New Generation Finance	Mortgage Finance
Property capital structure	All equity	Debt and equity
Financing instrument basis	Long-term lease	Mortgage note
Home buyer ownership interest	Unencumbered remainder interest	Debt-encumbered fee simple interest
Overlapping home buyer and financier ownership claims in default	No	Yes
Default-based property repossession	Tenant eviction	Mortgage foreclosure
Ownership change in default resolution	No	Often
Financier property repossession cost	Lower	Higher
Property repossession process time interval	Shorter	Longer

Table II. Comparison of the new definition of securitization with earlier *ad hoc* definitions

	New Definition	Earlier Definitions
Restrictions on property type	No	Yes
Limited liability securitization output	Yes	Yes
Securitization output investment characteristics reflect securitization input investment characteristics	Yes	Not necessarily

About the author:

Dr. Graff is a Real Estate and Financial Economist. He originated the concept of synthetic debt-remainder interest decomposition in real estate investment theory. He received the 2005 James A. Graaskamp Award from the American Real Estate Society in recognition of extraordinary iconoclastic thought and innovations in real estate investment theory and asset-backed finance. He is a Co-Founder and Principal of Electrum Partners LLC and Graff/Ross Holdings LLP, created to implement financial and investment products based on the asset decomposition concept.