

APPENDIX 5 – THE SECONDARY MARKET FUNCTION

THE SECONDARY MARKET FUNCTION-DEBT TRANSACTIONS

Securitization is an attractive financing alternative to equity transactions for a variety of reasons and is a potential market for the entrepreneurs who seek to leverage the value of intellectual property. Securitization allows a borrower to separate its credit from the credit of the assets to be securitized. The assets with potential to generate income are pooled and securities are sold to finance the carrying of the pooled assets. The securities market then analyzes the creditworthiness of the assets, rather than the creditworthiness of the borrower. This can result in reduced risk to the investor and lower costs of capital to the borrower.

Bissonnette and Andersen set out the securitization process in four steps:¹

1. The originator identifies an asset with a reasonably predictable cash flow, often some type of receivable.
2. The originator sells the asset to a newly formed, legally separate entity known as a special purpose vehicle (“SPV”). The sale of assets is structured as a “true sale.” The SPV raises funds to purchase the asset by issuing securities to investors through the capital markets.
3. The SPV structures the securities to be sold according to such criteria as the past performance history of the asset and the degree of credit enhancement, leading to a credit rating and thus the interest rate assigned to the securities. “The goal here is to structure the securities in such a way as to provide ample protection to the investors while still paying a profitable amount to the originator.”
4. The SPV enters into “pooling and servicing agreement” with a third party, who agrees to service the obligations now owned by the SPV. Often, the third party is the same entity—the originator—that sold the asset to the SPV. The service provider

¹ A.M. Bissonnette and R.M. Andersen, *Securitization: Turning Future Receivables into Cash*, PACESETTER MAGAZINE, Ontario Systems, Fall 1998, pp.24-27.

collects payments from debtors, remits payments to investors, reports to investors, and accounts for interest and principal throughout the life of the securities issued.

Jason Kravitt argues that definitions such as the above are orientated towards process rather than substance. He prefers a more fundamental definition of securitization: “[Securitization] consists of the use of superior knowledge about the expected financial behavior of particular assets, as opposed to knowledge about the expected financial behavior of the originator of the chosen assets, with the help of a structure to finance the assets more efficiently.”² Javitt emphasizes the separation of the behavior and characteristics of the originator from the behavior and characteristics of the assets. The breakdown of individual, segregated, and protected capital markets into an increasingly worldwide capital market, Javitt believes, has driven the need to find more and more efficient means of raising capital. With the greater use of computer technology and the information revolution, securitization has become among the most efficient financing forms. Computers allow the storage and retrieval of data on the historical behavior of asset pools, thus enhancing knowledge of the subsequent behavior of earlier asset pools from a given originator. Done correctly, says Javitt, securitization of the asset pool can be less risky than the direct financing of the originator. The “correct” securitizing of an asset pool requires several structural components: the isolation of the assets, by “true sales,” from the originator to render them “bankruptcy remote” from the originator. This ensures that the only relevant event to the financial success of the investment is the behavior of the assets; the perfection of the asset investors’ interest in the assets; and the limitation of the investors’ liability.³

Securitization is a response to market conditions, and especially to increased market efficiency, globalization, and the increasingly rapid dissemination of data. It has been applied to a variety of different situations and could potentially be applied to future income stream from intellectual property. In what follows, residential mortgages, credit card debt outstanding, ship mortgages, Bowie bonds, ALPS, and junk bonds are discussed. Each of these offers a somewhat different aspect of the fundamental financial relationships among risk, return, and value. In all, the objectives are to release the capital value of projected future income streams; to develop secondary markets to improve liquidity; and to use portfolio

² Jason H.P. Kravitt, *Securitization*, THE FINANCIER, Vol. 4, No. 5, December, 1997, pp. 7-11.

³ *Id.* at 8.

diversification to reduce the impact of the default risk present in securities issued by individual companies. These same goals are applied when looking to create markets for entrepreneurs and innovators who seek to leverage intellectual property assets.

A. The Secondary Market Residential Mortgages

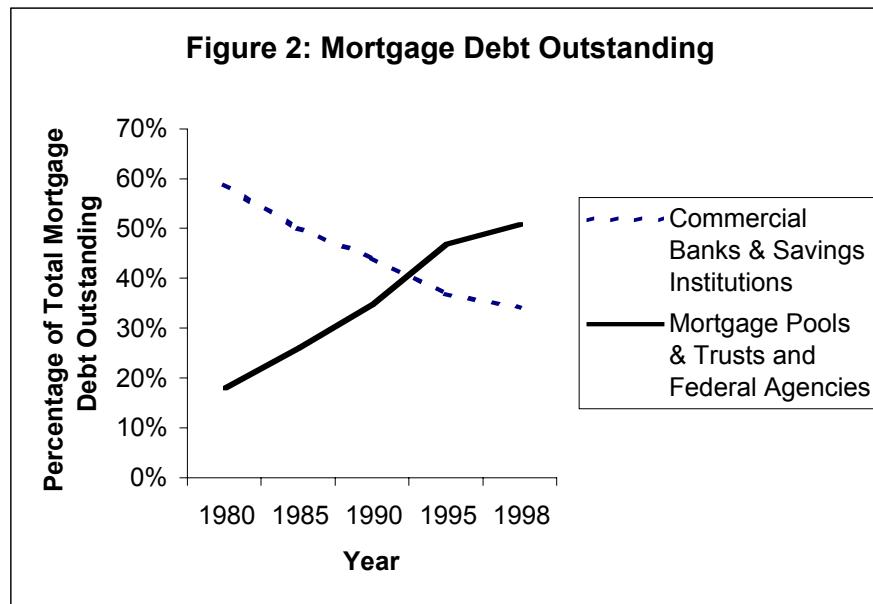
A well-known example is the secondary market in residential mortgages. At one time, banks held residential mortgages in their own investment portfolio. Today, many banks bundle, or “pool” and sell the mortgages to other institutional investors seeking a well-secured medium to long term income stream, thus immediately releasing funds to the banks for further mortgage activity. The following table shows the change in the composition of mortgage holders (mortgagees) for selected years between 1980 and 1998:

Table 1: Composition of Mortgage Holders

	1980	1985	1990	1995	1998
Mortgage Debt Outstanding (\$ billions)	<u>1,465</u>	<u>2,374</u>	<u>3,794</u>	<u>4,610</u>	<u>5,782</u>
Commercial Banks and Savings Institutions	59%	50%	44%	37%	34%
Life Insurance Companies, Individuals and Others	23%	25%	22%	16%	15%
Mortgage Pools or Trusts	10%	18%	28%	40%	45%
Federal Agencies	<u>7%</u>	<u>7%</u>	<u>6%</u>	<u>7%</u>	<u>5%</u>
Total	<u>100%</u>	<u>100%</u>	<u>100%</u>	<u>100%</u>	<u>100%</u>

Source: Statistical Abstract of the United States, 1999, U.S. Department of Commerce, Table 820, p. 525.

The shift of mortgage holders from commercial bank and savings institutions towards mortgage pools and trusts (including federal agencies) may be shown graphically (see Figure 2):



Between 1980 and 1998 the mortgage debt outstanding, in money terms, increased fourfold (see Table 1). Yet the proportion of the debt held by the principal mortgage initiators, commercial banks and savings institutions, fell from almost 60 per cent to just over 34 percent. During the same period, mortgage debt held in pools or trusts, having been sold by the banks on the secondary mortgage market, increased from 10 percent to over 45 percent of the mortgage debt outstanding. The banks' need for liquidity in order to take advantage of new lending opportunities provided the motivation; the prospect of a steady and secured income stream motivated investors; and the standardization of mortgage terms and criteria made possible the bundling and securitization of mortgage debt for sale on the secondary market. Similarly, bank and credit card companies sell on the secondary markets asset-backed loans such as credit card receivables or consumer installment loans.

The mechanism in each case usually requires the sale of the assets to a pool or trust, in which investors buy a security interest. Often, the originator of the loan (for example, the bank) will continue to collect payments from the debtor, and take a processing fee, passing the net proceeds to the investors in the security. The originator of the loan must ensure that the credit-worthiness of the borrower and the terms of repayment of interest and principal conform to strict standards, otherwise the loan will not be accepted as a pooled security. The mere pooling of such assets for

sale, however, is not always sufficiently attractive to potential investors. It becomes necessary, therefore, to “sweeten” by the deal, at additional cost, using “credit enhancement” techniques. Credit enhancement may take a variety of forms, notably guarantees, credit downgrade triggers, offsetting obligations amongst the parties, and/or additional collateral security, all with the intention of improving the credit rating of the investment, thus increasing its marketability and hence its value.

B. *The Secondary Market for Credit Card Debt*

The credit card market in the U.S.A. has increased from \$234 billion of total receivables outstanding in 1990 to \$356 billion in 1998.⁴ The growth came from continued reliance of consumers on credit cards, more acceptance of credit cards by merchants and service providers, and a greater diversity of cards, including affinity and co-branded cards. Eight of the top ten institutions with credit card portfolios accounted for approximately two-thirds (\$240 billion) of the \$356 billion credit card debt outstanding in mid-1998. Over 60 percent of the \$240 billion was securitized. The percentage of debt securitized by individual institutions in the eight ranged from 49 percent to 75 per cent.⁵

The use of securitization as a financing tool has increased since the first securitization deals were made in 1987, primarily in order to diversify sources of bank funding. In the middle to late 1990s, securitization has become the primary source of funding for specialized credit card banks such as Fleet, Citibank, MBNA and First USA. These banks benefit from funding at the favorable rates implied by high, AAA, grades, and use securitization to remove debt from their balance sheets.⁶ Dean *et al.* observed “Without securitization, some of these banks could not have grown as rapidly.”⁷

Most credit card securitizations have used the master trust vehicle since 1991, rather than the more cumbersome “stand alone” approach used until then. The master trust is more flexible, in that it permits the issuer to sell multiple securities from the same trust, all of which are secured on the

⁴ Michael R. Dean, Chris Mrazek, Richard C. Drason, Mark Sun, Kathy Moon and Michelle Galvez, *ABCs of Credit Card ABS*, THE SECURITIZATION CONDUIT, Vol. 2, No. 2 & 3, 1999, pp.26-37.

⁵ *Id.*, Exhibit 1, pp. 27-28.

⁶ *Id.* at 27.

⁷ *Id.* at 28.

same pool of receivables - "All the accounts support all the securities."⁸ This enables the issuer to add new receivables to the trust, and then to issue new securities against them, and thus avoids the costs of setting up a new trust for each issue (as required by the stand alone trust). The master trust is a particularly suited to credit card securitization, as credit card debt outstanding is constantly changing in both total amount and composition.⁹ From the perspective of the investor, however, the asset composition of the master trust will be changing constantly, and with it, perhaps, the risk complexion of the pooled assets. Every seller of credit card debts to the trust is required both to issue securities and to maintain an ownership interest in the trust (usually at least 7 percent), so that the seller will have a direct interest in maintaining the credit quality of the pool.

Credit card debt, being unsecured and revolving, offers no collateral in case of default. The ability to recover the debt in default is limited, and this does not present an attractive investment opportunity to investors seeking investment-grade securities. Once again, therefore, credit enhancement is needed, and takes the form of some combination of elaborate customer credit scoring models, "excess spread," and "reserve" accounts financed by subordinated debt.¹⁰ Excess spread is described in detail in Dean, *et al.* Credit card debt has a high yield, around 18 per cent. This revenue must, for example, cover the coupon payments to investors, 7 per cent; servicing expenses, 2 percent; and defaults, 5 per cent, a total of 14 per cent.¹¹ The remainder, 4 percent, is the excess spread, and is a rough indicator of the health of the portfolio. It may be used in a variety of ways to enhance credit: as a safety margin of value to investors; as profit to issuers; and/or as a "sweetener" to investors.

C. The Ship Mortgages Act

"Throughout history, trading nations have consistently felt that a merchant fleet was important to their economic well-being and have enacted

⁸ *Id.* at 28.

⁹ The average life of a credit card receivable is only five to ten months. Contrast this with residential mortgages with average lives of around eight years.

¹⁰ As in the case of ALPS (*q.v.*), credit enhancement is achieved in part by passing the default risk burden downstream to subordinated debt.

¹¹ These figures are illustrative, although they are probably fairly close to current experience. Default rates seem to have risen towards 6 per cent, and service costs have increased also, reducing the average excess spread to the 2-4 percent range.

various measures to encourage national merchant marines.”¹²

In 1914, only about 10 percent of U.S. international trade was carried in U.S.-flag ships as its merchant marine had concentrated mostly on domestic coastal trading. Consequently, most of U.S. international trade was carried by British, German, Italian, and French ships. At the outbreak of the First World War in 1914, these nations were belligerents, and diverted their merchant fleets for strategic and naval purposes. The paralyzing effect of the withdrawal of these ships from U.S. commerce led to the 1916 Shipping Act. This act established a five-person Shipping Board with broad powers to encourage and expand the U.S. shipbuilding program.¹³ As a result of the Board’s activities, the U.S. emerged from the First World War with

“the world’s largest merchant fleet Most of this fleet was owned by the government, which had no desire or mandate to operate it in peacetime trade beyond the five years after the war’s end provided for in the 1916 act.”¹⁴

The extent of the problem may be seen in Table 2:¹⁵

Table 2

Deliveries to Shipping Board (non-naval vessels, deadweight tonnage)							
1914	1915	1916	1917	1918	1919	1920	1921
200,000	200,000	600,000	1,000,000	3,000,000	6,200,000	3,100,000	800,000

To deal with this problem, the 1920 Merchant Marine Act was passed (the Jones Act), which provided for the transfer of the Board’s fleet to private hands in such a manner that it could be operated profitably. In the same year, 1920, the Ship Mortgage Act was passed. Prior to this act, a ship mortgage was held not to be a maritime contract, and so could not be enforced in maritime courts, although common law did offer very limited protection to the creditor. F.L. Maraist wrote:

“The lack of an adequate device by which a ship-owner could

¹² Congress of the United States, Congressional Budget Office, “U.S. Shipping and Shipbuilding Trends and Policy Choices,” August, 1984, p.33.

¹³ *Idem*, p.12.

¹⁴ *Idem*, p.12. In 1920, the U.S. owned 22 percent of the world’s shipping capacity, compared to just 7 percent in 1914.

¹⁵ F.C. LANE, SHIPS FOR VICTORY: A HISTORY OF SHIPBUILDING UNDER THE U.S. MARITIME COMMISSION IN WORLD WAR II, The Johns Hopkins Press, Baltimore, 1951, p.5. Note that deliveries did not peak until the year after the end of the war.

borrow on the credit of the vessel undoubtedly discouraged private financing of vessels. In 1920, Congress, in an effort to develop a stronger American merchant marine and, perhaps to facilitate disposal of the merchant vessels which the federal government had acquired during World War I, passed the Ship Mortgage Act . . . , providing for a ‘preferred ship mortgage’ on a vessel and for its enforcement in an *in rem* proceeding in admiralty The Ship Mortgage Act has become a vital part of the financing of American maritime shipping.”¹⁶

The Ship Mortgage contained the following main provisions:¹⁷

1. A maritime preferred mortgage can be granted only on a “documented vessel.”
2. The mortgage must be on the whole vessel.
3. The mortgagee must be a U.S. citizen or other designated entity.
4. The mortgage may include more than one vessel and may include non-maritime property.
5. There is no limitation on the interest rate charged.

The perfection of a preferred¹⁸ ship mortgage requires the following steps:

1. The execution of a mortgage, with acknowledgement.
2. The mortgagor “*may be required to disclose the existence of obligations on the mortgaged vessel and may not incur certain liens on the vessel until the mortgagee has had a reasonable time to record his preferred mortgage.*”
3. The mortgage must be lodged with the Secretary of Transportation, who must maintain “*an appropriate index of mortgages for use by the public.*”

¹⁶ F.L MARAIST, ADMIRALTY, NUTSHELL SERIES, West Publishing Group, 3rd Edition, 1996, pp. 82-83.

¹⁷ *Idem*, p.84.

¹⁸ There were some restrictions on the term ‘preferred.’ “The maritime ship mortgage is primed by all maritime liens arising prior to the recordation of the mortgage, and by all subsequently arising maritime liens except those securing maritime contracts.... Because of this, the mortgagee may require that all pre-existing liens be paid before funds are advanced under the mortgage and that no other contract liens be placed on the vessel before the mortgage is recorded.” *Idem*, pp. 84-85.

4. The mortgagor shall use “diligence in keeping a certified copy of the mortgage on the vessel.”¹⁹

It seems clear that the act was intended to stimulate the private financing of mortgages by seeking to ensure that information regarding prior liens was made available to prospective mortgagees, who in turn were obliged under the act to register their mortgage with the Secretary of Transportation. Also, copy of the mortgage had to be attached to the asset itself, as a further safeguard.

By 1922, events had overtaken the act. The demand for shipping collapsed, and 17 percent of the world’s capacity was idled, and the war-built U.S. fleet began to be steadily out-performed by other, more modern fleets. The 1936 Merchant Marine Act was a response to this situation. It established the U.S. Maritime Commission to replace the Shipping Board, and provided for the financing and production of a U.S. made and crewed merchant marine. The Second World War gave an added stimulus to shipbuilding (see Table 3), based on the 1936 act. In consequence, the U.S. merchant marine emerged from the Second World War with about 4,500 ships suited to commercial use, more than all other nations combined.

As had occurred at the end of the First World War, the end of the Second World War saw the need to dispose of the ships that had been built to meet the strategic requirements of the war.²⁰

Table 3

Deliveries in Maritime Commission Program (non-naval vessels, deadweight tonnage)						
1939	1940	1941	1942	1943	1944	1945
250,000	500,000	750,000	8,000,000	19,000,000	16,500,000	11,000,000

The Merchant Ship Sales Act of 1946 provided for the sale of these ships to U.S. citizens and foreigners. Some 2,000 were sold, with a further 1,400 being laid up in the National Defense Reserve Fleet.²¹ In addition, the Ship Mortgage Act of 1920 was amended to cover foreign ship mortgages:

“After World War II, the United States sought once again to

¹⁹ *Idem*, p. 84, emphasis added.

²⁰ F.C. Lane, *op.cit.*, p. 5. Note that production peaked in 1943, about a year after the United States entered the war, which had been in progress since 1939. Contrast this with the First World War numbers, above.

²¹ Congress of the United States, *op. cit.*, p.p.16-17.

dismantle its merchant fleet, but found that the increasingly popular use of foreign flags of convenience required expanding preferred mortgage status to foreign ship mortgages Congress amended the act to cover foreign mortgages, but the procedural requirements for domestic mortgages were not imposed. Instead, the Act viewed the foreign mortgage in the light of the applicable foreign law.”²²

National emergencies were responsible for the major changes introduced into the financing of shipbuilding in the 1920s and 1940s. Outdated laws and the consequent poor quality of available information were unnecessarily restricting the willingness and ability of investors to finance shipbuilding. The laws enacted strengthened the rights of the creditor, the mortgagee, by opening up the possibility of a preferred mortgage, and particularly by requiring that data about the mortgage be documented and recorded in a central database held by the Secretary of Transportation. While none of these enactments did much directly to improve the liquidity of investors, it did encourage those investors to become mortgagees by clarifying the extent of their risk, at least as far as default risk and prior claims are concerned. In this sense, they provided a necessary but not a sufficient condition for the development of a secondary market that would improve investor liquidity and reduce investor risk.

D. The Securitization of Future Income Streams

David Bowie, the entertainer, was a pioneer in the securitization of a future income stream. In 1997, Pullman and Associates struck a deal with Prudential Investments to pay \$55 million on ten-year notes to Bowie, with the repayment backed by royalties generated from a twenty-five record catalog of his work.²³ David Pullman, whose firm brokered the Bowie deal, believes that there is an untapped market of such deals that amounts to \$100 billion of annual licensing cash flow, which translates into a capitalized value of around \$3 trillion. The object of securitization by artists such as Bowie is to gain liquidity by capitalizing future cash flows. The assets backing the securities, however, are tied up for around ten years, and so cannot be used to secure future security deals until the initial deal is paid off. Contrast this with a credit-card deal for example, which tends to be somewhat generic and can be updated, with additional financing, on a

²² Federal Reporter, F.2d. Series, Vol. 776, 1986, West Publishing Co., p. 86.

²³ Lynna Goch, *op. cit.*

quarterly basis. Further, most artistic property is unsuited to long-term securitization: 99 percent of entertainers receive 95 percent of their royalty income within six months of the initial release of their work. Securitization deals, therefore, are only for those artists whose work has a proven record of long-term success. These deals are not “cookie-cutter” deals, according to Pullman.²⁴ Rather, as private placements not public issues, they require intensive negotiation that is based upon substantial research and study.

Investors – mostly insurance companies – have a mixed view of intellectual asset-backed securities. “Intellectual asset-backed securities are illiquid. Not many people know about them. The universe of buyers and sellers of this type of business is small,” says Douglas McCoy of Conseco Capital Markets.²⁵ Insurance companies need to be able to adjust their portfolios in line with changes in the market and in their liabilities. On the other hand, they are looking for well-secured, long-term investments with reliable cash inflows. Thus, they are willing to incorporate asset-backed securities into their portfolios, but only to a limited extent, knowing that they would have difficulty in disposing of any holdings rapidly and at low cost.

E. Aircraft Leasing Portfolio Securitization

Assets such as credit card debt and mortgages may be bundled together and securitized relatively simply, as their terms can be standardized, and none of them is, individually, likely to involve an amount in the millions of dollars. For assets individually worth large sums of money, such as a passenger jet aircraft, the terms are far more likely to be one-off and specially tailored to the needs of specific borrowers and lenders. In the case of aircraft leasing, the assets comprise both airplanes and leases. Commonly, the aircraft are sold to a “special purpose entity” (“SPE”), also known as a “special purpose vehicle” (“SPV”), which then issues new securities on the aircraft.

“Aircraft are generally characterized as ‘dangerous assets’. They are expensive to buy and operate, they are rarely in one place for very long, they become subject to a wide variety of laws and jurisdictions, they cause enormous damage when they crash, and they cause pollution. Worst of all,

²⁴ *Id.*

²⁵ *Id.*

people lose money on them.”²⁶

The potential market, however, is large, and with the decline of airline credit quality in the last decade or so, it has proved to be increasingly difficult for individual airlines to lease new aircraft, and then only as private placements rather than publicly traded securities. The use of securitization by grouping a number of airlines together and pooling their leases has diversified the portfolio. This, in turn, has lowered risk and made the cost more attractive to the airlines than a conventional lease, and the risk-return characteristics more attractive to investors.²⁷ William C. Bowers writes:²⁸

“Rather than enhancing a single corporate credit, the ratings of the debt securities issued in a portfolio securitization are based on the existence of a worldwide aircraft leasing market and the projected residual values of the aircraft in the portfolio. The actual levels of the ratings depend on a number of factors, including the age, initial value and diversity of the aircraft in the portfolio, the diversity (both individually and geographically) of the lessees of the aircraft and (to a much lesser extent) their credit quality, the initial level of lease rents, assumptions as to the timing and costs of defaults and remarketing and other relevant factors. Credit support in a portfolio securitization is tailored to the particular needs of the aircraft and lessees involved, e.g., . . . major maintenance costs, compliance with noise regulations and similar factors.”

The first ALPS issue occurred in 1992, amounting to \$417 million of debt and based on an appraised value of \$521 million. It was subjected to a very high degree of due diligence:

“Each country in which a lessor was located was completely vetted from a legal standpoint, and each lease was carefully reviewed to ensure that it met exacting legal standards. A similarly high legal standard was applied in the actual aircraft deliveries, resulting in an extended period between

²⁶ Robert Hallam, “Securitization,” THE FINANCIER, Vol. 2, No. 3, August, 1995, p. 52.

²⁷ THE TIMES, LONDON, *Securities take off with bonds based on aircraft leases*, June 15, 1992; and THE FINANCIAL TIMES, LONDON, *Securitisation: a viable financing option – International*, August 24, 1994. Note, however, that in the case of the 1992 ALPS, credit enhancement for the Senior Notes was essentially at the expense of the subordinated debt. See Hallam, *op. cit.*, p.58, “Packing in collateral and credit enhancement to satisfy senior debt ratings doesn’t solve problems – it merely shifts them downstream. Placing subordinated debt is much harder than finding investors for AAA notes.”

²⁸ WILLIAM C. BOWERS, “AIRCRAFT LEASE SECURITIZATION: ALPS TO EETCS,” Winthrop Stimson Law Office, New York, nd., p.1.

initial funding and the transfer of the last aircraft.”²⁹

The second ALPS issue, in 1994, was an SEC registered securitization of a portfolio of aircraft operating leases and involved almost \$1 billion of debt on an appraised asset value of over \$850 million, about twice as much as the first portfolio securitization. Twenty-seven aircraft were leased to 22 lessees in 14 countries. There followed an issue of over \$4 billion to finance 229 aircraft to 83 lessees in 40 countries.³⁰

The success of the ALPS issue led bankers to consider whether securitization might be applied to an individual airline rather than a bundle of airlines, and this resulted in the creation of the Enhanced Equipment Trust Certificate (“EETC”). As the term implies, these securitizations are enhancements to more traditional equipment trust certificates. The enhancements may include: the issuer of the EETC being “bankruptcy-remote” from the lessee; the existence of a direct relationship between the expected residual value of the aircraft and the amount of funding – the lower the funding percentage, the higher the credit rating; and the existence of a liquidity facility to ensure the continued payment of interest on EETCs during the repossession and remarketing of the aircraft lease following default by the lessee. The first EETC was by Northwest Airlines in 1994, and was followed by several others through 1997 that involved over 90 aircraft and \$3.3 billion in debt.³¹ The website of Monitor Leasing and Financial Services lists a number of recent transactions involving such companies as Pegasus, GE Capital Aviation Services, CIT Aerospace, ILFC, and Aerolease.³²

F. *Junk Bonds*

The “junk bond” financial scandal of the 1970s and 1980s offers an intriguing, if perverse, view of the importance of liquidity and marketability to value. Michael Milken, the junk bond “king,” believed that there was an inefficiency in the corporate bond market. Milken discovered that many

²⁹ *Idem*, p.2. Hallam, *op. cit.*, pp. 55-56, stated that “the logistical problems in effecting title transfers and the creation of security interests have to be gone through with each Aircraft and Lease, which.....required four months of hard work with 14 sets of conditions precedent and nearly 100 legal opinions.”

³⁰ *Idem*, p. 2.

³¹ *Idem*, pp. 1-3.

³² www.monitordaily.com/news/aircraft.html.

defaulted or lower-rated bonds were under-priced in the markets relative to their risk. This under-pricing relative to risk offered the potential for a portfolio of such bonds to out-perform a portfolio of investment grade bonds. In an efficient market, U.S. Treasury Bonds with no default risk would have yielded (because of a price differential) the same amount as the bonds of companies “in distress” with their much higher interest rates but also higher rates of default. Benjamin J. Stein wrote:

“The buyers of the bonds were helped because the bonds were crafted to pay a yield so high that even after deducting for the defaults that would inevitably occur, the bond buyer would still be ahead of where he would have been if he had bought boring old Treasury bonds with their nil default rate and their lower yields The borrowers were better off because with the proceeds of the Drexel junk debt, they could apply their ingenuity, their talent, and their own innovations to make their businesses grow The American worker was better off because the companies funded by Drexel would provide new jobs while the old, stodgy, investment-grade American companies got smaller and laid-off workers The American consumer was better off because Drexel issuers would provide new kinds of goods and services, such as larger and better casinos and nationally franchised day-care centers America as a nation was better off because thanks to Mike Milken the republic was more prosperous and freer in several basic ways. Access to capital was now democratic. If any American had a good idea, he could bring it to Milken, get it funded, and tries his hand at capitalism . . . Capital would not be provided only to rich WASPs of old family, but on the basis of the aristocracy of talent.”³³

Milken had a point: Only corporations with “investment grade” bonds (some 5 percent of the 23,000 U.S. companies with annual sales in excess of \$35 million) had access to long-term debt capital. The remaining 95 percent were either left without debt funding opportunities, or were forced into higher cost debt financing from the banks. Post-Milken, markets in lower grade bonds have developed, so that, at a price, high-risk companies have easier access to long-term debt finance.³⁴

If this inefficiency in the market existed and led to under-pricing of high risk, “junk” bonds, then, wrote Stein:

³³ BENJAMIN J. STEIN, A LICENSE TO STEAL: THE UNTOLD STORY OF MICHAEL MILKEN AND THE CONSPIRACY TO BILK THE NATION, Simon & Schuster, New York, 1992., pp. 22-23. This section draws heavily on Stein’s work.

³⁴ See GLENN YAGO, HOW HIGH YIELD SECURITIES RESTRUCTURED CORPORATE AMERICA, Oxford University Press, 1990.

"It meant that buyers of low-rated bonds could, with some insignificant investment of time and effort, consistently achieve higher yields at this lower end of the bond scale than at the higher end. The increased default rate of poor-quality bonds would not be so large as to offset their higher yield. "Junk," in fact, would be, if carefully bought, more valuable than gilt-edged Treasury bonds. The high interest rate of such bonds would, over time and with a large enough sample, make up for all risk of loss and bring the buyer out ahead of investments in high-rated, low-interest bonds."³⁵

Milken noted that trading in junk bonds was occurring in a limited and small-scale way, but he advanced the notion that such trading could be done on a national scale, by creating an orderly, well-managed market. This would enable companies to finance projects by long-term debt capital, provided by investors willing to invest in junk bonds because they would no longer be illiquid. Greater liquidity would have a beneficial effect upon the risk of the bonds, and so on their interest rates.

The question was, how to create a more efficient market for such commercial paper? One of the requirements of efficiency is that buyers and sellers have a substantial amount of knowledge about the "product," difficult to achieve in the junk bond market, where every bond was different in risk and in contract terms. Milken decided that a real market was not possible, but that there could be an "illusory" market. If A buys B's bonds at above market price, A loses. Milken, therefore, had B buy A's bonds at above market price, so that "In the wash, the gains and losses were supposed to roughly tally."³⁶ To avoid being out of balance, A and B sell on the bonds to banks and insurance companies *that they control*. Consequently, it is depositors' and policy-holders' money that is being used, not A's or B's. A and B are content because they gained access, at a price, to long-term debt financing that otherwise would have been unavailable. As Stein notes, "The desire for cash, or the apparent opportunity to make money with that cash, is so great that it simply blocks out many other concerns."³⁷ Milken, of course, benefited as the middleman who essentially controlled both sides of the deal. These were not "arms length" transactions.

Why would this deception not be discovered immediately? Because, says Stein:

"The securities bought usually had no public market, no established

³⁵ Stein, *op.cit.*, p. 35.

³⁶ *Id.* at 68.

³⁷ *Id.* at 70.

prices, and could – by accounting rules, very loosely applied – count as being worth their cost for as long as they were in the portfolio. Even if they in fact defaulted – and this was really beautiful – the issuer could replace them with a handful of new securities to which the buyer could assign any value he wished. Defaults could simply be made to disappear.³⁸

At this point in his development of an illusory market, Milken still had to develop an answer to the liquidity problem for investors – the vast majority of banks, pension funds and insurance companies that were not under his control. In essence, his plan was to “securitize” the commercial loan business, by turning commercial loans into liquid securities. In addition, Milken promised investors that he would “take them out” of the bonds at a moment’s notice – but not always at a price they would like.³⁹ Milken stated, “High yield bonds are no more than securitized loans, often with fewer [restrictive] covenants.”⁴⁰

Note, however, that the junk bonds were not necessarily worthless. Properly accounted for, as part of a well-managed and diversified portfolio, and with adequate provisions recognized for potential losses, they were, and are, legitimate investments. The existence of securities and markets for securities that are below investment grade but still possess potential value, are valid segments of the overall market for securities. Full disclosure of realistic default rates, several market-makers, not just one, and a more direct connection between borrowers and lenders with less pocketed by the one middleman, might have provided a net benefit to the economy. As it was, many institutions and individuals suffered great losses, and Milken, of course, went to jail.

³⁸ *Id.* at 68.

³⁹ *Id.* at 75.

⁴⁰ Milken, quoted in Stein, *op. cit.*, p. 75.