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**A CAPITAL SUPPORT SYSTEM FOR THE NATION'S PHYSICAL PLANT**  
**Enhanced Access to Capital for Private Sector Infrastructure Participants**  
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In recent years the United States government has encouraged participation by the private sector in the investment in and operation of infrastructure activities. This federal policy direction has been recently demonstrated with the passage of the Intermodal Surface Transportation Efficiency Act (ISTEA), a landmark piece of legislation which will serve to dramatically alter the direction, focus and resources related to the basic physical support systems of the nation's economy.

***Federal Directions in Private Infrastructure Investment***

The provisions of the ISTEA specifically address concerns involving the highway and mass transit modes of transportation infrastructure. Among the many issues presented in the legislation is a call for the identification of innovative intermodal financing mechanisms, as well as generation of greater levels of infrastructure awareness within the financial markets. Through the ISTEA, the federal government has expanded its efforts to encourage greater participation in the transportation sector by inviting direct investment in activities such as highway and transit development, operation and support.

Executive order number 12893, issued by President Clinton in January 1994, addressed the need for qualitative investment in the nation's physical plant by the federal government. The order calls for a "Systemic Analysis" of infrastructure project benefits and costs, applied in a consistent fashion. Furthermore, the executive order specifically encourages private sector participation in infrastructure investment and management through the use of "...innovative public-private initiatives in the ownership, financing construction and operation of infrastructure projects..."

In 1992, another executive order (no. 12803) was issued by President Bush advocating the transfer of investment from the public to the private sector through an easing of regulatory interference in the privatization of infrastructure assets. Unfortunately, the interest of private investors in pursuing opportunities within infrastructure continues to be restrained, in large part due to the difficulty in obtaining support and encouragement from the financial community at large.

Despite these directives and policy initiatives, the federal government has not addressed a basic ingredient of the economics of any *infrastructure activity* - where does the money come from, if not from a loan or grant program from Uncle Sam??

***Difficulties in Capitalizing Private Sector Participation***

The ability of the private sector to participate or invest in historically public sector activities, is hampered by an inability to obtain sufficient capital for such investment, regardless of the participant's credit-worthiness. New entrants into the field, who have little credit history in this particular endeavor, experience great difficulty in obtaining funds through existing capital sources. Likewise, many mid-size participants in the sector have similar difficulty due to a lack of sufficient size, structure or financial acumen to approach capital markets with ease.

There exists a general aversion on the part of lending institutions towards exposure to risk in the infrastructure arena. This condition impedes the flow of capital to private ventures. Lender caution is in great part due to the perceived levels of risk attendant with such activities. The absence of reliable standards for determining an ac-

ceptable level of credit quality limits a lender's ability to review a potential loan transaction in the context of the entire industry. In addition, the lack of standard transaction documentation creates a situation in which issuance costs and lending conditions cause disincentives to pursue such loans.

The risks associated with private infrastructure debt which must be faced by a single lending institution are somewhat greater than those experienced in other lines of business due to the relatively small number of such enterprises existing within the particular geographical service area of the individual lender. Accordingly, the capacity to minimize overall loan portfolio risk through diversification across a large number of borrowers is difficult for the majority of banks to achieve.

### ***Need for a Standard Investment Vehicle***

These conditions are exacerbated by the absence of a viable, widely accepted investment mechanism which could provide potential participants in infrastructure projects with access to alternative pools of capital such as those available through the general capital marketplace. Such a deficiency serves to undercut the success of federal government efforts to expand private investment in the domestic physical plant.

The limitations on capital movement into infrastructure investments must be addressed in order to successfully encourage private investment in the nation's infrastructure needs. This fact was recognized, in part, by the ISTEA legislation which addressed the need to "...examine the existing impediments to efficient financing of intermodal transportation improvements."

A mechanism must be developed through which the perception of risk attendant with infrastructure activity can be clearly and objectively assessed. A means for creating standards of loan documentation, terms and conditions as well as for establishing acceptable credit quality levels must be developed in order to reduce the magnitude of 'due diligence' efforts which must be undertaken by individual lending institutions and borrowers.

Standardization of the lending activity must then be utilized in providing a free flow of capital from a diversified group of investors to a diverse array of borrowers. A high quality investment instrument must be created and tailored to meet the highest standards of investment prudence such that the instrument will be sought eagerly by pension plans, mutual funds and other investors with high standards of quality.

The ISTEA called for such an investment vehicle when it directed the creation of "... a type of infrastructure security to permit the investment of pension funds in funds used to design, plan and construct infrastructure facilities in the United States."

***These needs can be quickly, completely and correctly addressed through the use of securitization and secondary markets, implemented through the establishment of a government sponsored enterprise (GSE).***

### ***Securitization Defined***

Securitization is the creation of marketable securities which are backed by the receipts from a group (pool) of individual loan or lease transactions. New capital for use in the origination of additional individual loan or lease transactions is provided through the sale of the asset-backed securities to a broad range of investors with an extended geographic dispersion and a wide spectrum of portfolio risk diversification. Through this structured financing technique, the risks of delinquency, default and interest rate movement on the original individual loans and leases can be transferred from the original lender to the much larger security marketplace.

The single party which packages and "pools" the individual loans in this environment provides standardized risk analysis, documentation parameters and diversification of risk through involvement in a national scope of transactions.

An early use of this mechanism involved the packaging and standardization of home mortgage loans by the Federal National Mortgage Association (FNMA). The resulting infusion of capital increased the availability of mortgage funds throughout the nation, while avoiding historic market sensitivities to regional economic weaknesses. Since the inception of the practice for mortgages, a secondary market acceptance and demand for asset backed securities has grown tremendously over recent years, and has become increasingly global. In 1990, \$180 billion of these securities were issued into the marketplace, in sharp contrast to the level of only \$500 million of new issues in 1980. It is anticipated that by the year 2000, over 80% of ALL new loans in the U.S. will be securitized.

The success generated by these programs has been largely created by the standardization of loan applications processed by each agency. Due to the success of the securitization program, a person in Oregon completes essentially the same mortgage application as a person in Alabama. Each person is required to meet essentially the same credit standards and file essentially the same loan documents, which have been developed to meet the standards established by FNMA or FHLMC. Since both loans meet the standards, both local banks will probably sell the mortgage loan to FNMA - "Fannie Mae" or FHLMC - "Freddie Mac". The local bankers can then use the proceeds from the sale of the mortgages to lend money to other people in Oregon and Alabama.

As a result of selling the mortgage loan, the local banker experiences no loss if the loan is not repaid. Instead, the risk of loss from non-payment on the loans is transferred to FNMA or FHLMC. These agencies, which purchase millions of similar mortgage loans from banks around the country, "pool" the loans and create securities which are repaid by the principal and interest received from the people in Oregon and Alabama, as well as the other loans in the "pool" of mortgage loans.

The mortgage backed security, which holds the AAA rating associated with the agency, FNMA or FHLMC, is then sold on the public markets and pays taxable interest to the investors. The funds received from investors are used by FNMA or FHLMC to purchase more loans from local banks, who in turn use the funds to create more loans. In the event that the loans are not repaid, FNMA or FHLMC guarantees to pay the investors certain levels of principal and interest, thus spreading the risk of loss across all investors across the nation.

Through the securitization program, investors provide funds for home mortgages without the need to personally investigate the credit quality of each individual loan, the individual banker or the strength of the regional econo-

mies in Oregon or Alabama. Instead, investors rely solely upon the credit quality of the government sponsored enterprise - FNMA or FHLMC to purchase, package and "securitize" only those loans which meet the credit quality standards established for the market.

### ***Benefits of Securitization to Infrastructure Investment***

A securitization program would directly benefit the infrastructure needs of the nation. Several direct benefits would be immediately obtained by mid-size, credit-worthy participants in the sector.

An effective securitization program will expedite economic development, provide a stimulus for job creation and allow for improvements to environmental and productivity performance in the economy. These benefits would be the direct result of an overall acceleration of infrastructure modernization caused by expanded levels of investment from new sources in infrastructure related activities.

By diversifying the sources of capital to ***private sector*** contractors, manufacturers and operators of infrastructure related activities, a program of this nature will accelerate funding for developing technologies and private sector development initiatives. New investors, such as pension plans, which are currently precluded from investment in infrastructure due to the tax-exempt nature of most related securities, would bring new monies to the market through their purchase of GSE securities backed by the individual loans.

The financial markets' increased willingness to address infrastructure concerns could also provide benefits to ***public sector*** participants, as well.

The attractiveness of private sector debt related to the development, ongoing operation and support of infrastructure activities will be enhanced as *uniform criteria for credit assessment are established* by the markets, as *risk diversification expands*, as *low-risk operating returns are earned by primary lenders*, and as investors become comfortable with the stability of the newly formed market instruments. As the secondary market matures and liquidity is created, the cost of capital to the participants in the infrastructure process, including the transportation sector, will decrease.

A securitization program will also increase private sector involvement and awareness of infrastructure activity by providing a high quality investment vehicle for consideration by the investment community. Risk-averse investors, such as pension funds or mutual funds, could indirectly provide financial support for infrastructure renewal without the need to analyze a vast array of individual transactions and borrowers. Instead, these investors could rely on the full faith and credit of the GSE as the issuer of the secondary market securities, rather than investigating the myriad issues surrounding each individual loan or project.

By increasing the relative attractiveness of infrastructure related debt, both for the lenders and prospective borrowers, the flow of non-government related capital into the sector will increase. Consequently, due to the expanded use and availability of private capital to such infrastructure activities as those in the transportation sector, it may be possible to limit the federal government's annual cash outlays to levels necessary to cover annual debt service on loans or leases which are then securitized by the lenders. Such a reduction in the annual cash

outlays for infrastructure projects could create a multiplier effect on program funding which would eventually allow additional program initiations with the equivalent level of budgetary authority.

The standardization of transaction formats and credit analysis protocols would provide the same benefits of expanded, cost-effective market access to related public sector entities. Furthermore, through special pass-throughs of tax exemptions on pools of tax-free debt instruments, public sector participants could be provided with levels of capital access equivalent to that available to private sector entities in the market.

#### Historic Vehicles for Government Securitization

Securitization dedicated to infrastructure related activities can be implemented in the same fashion as has been successfully applied to other domestic economic sectors when the need for private capital infusion was recognized - through the establishment of a Government Sponsored Enterprise (GSE).

The government initiated the practice of securitization in the mortgage loan arena. The resulting federal programs (FNMA, Government National Mortgage Association (GNMA), and the Federal Home Loan Mortgage Corporation (FHLMC)) have been very effective in promulgating domestic policies relating to assistance for home buyers.

Currently, approximately \$1.3 Trillion in mortgage-backed securities associated with GSE related pooling programs are outstanding. Between 1980 and 1990, the percentage of total mortgage debt outstanding absorbed by pools grew from 15 percent to 30 percent.

The success of the mortgage securitization programs, has encouraged expanded federal government use of the securitization process. Currently, government securitization programs involve multi-family home loans, school loans and farm loans. In addition, private financial institutions have also used these techniques to securitize many forms of consumer debt such as auto loans, credit card debt and home equity loans.

Through various programs of the Department of Housing and Urban Development, structured financing has provided approximately 83% of home mortgages with some form of explicit or implicit federal support, primarily through government sponsored enterprises. As a result, mortgage rates are approximately 25 to 50 basis points (1/4 to 1/2 percent) lower than might otherwise be available.

In the field of education, securitization has been applied to student loan activity through the government sponsored enterprise of SLMA ("Sallie Mae") which currently finances approximately 51% of outstanding student loans. In addition, farm credits and farmer land lease programs are in the formative stages of being securitized, a process which will provide much needed stability to the farm lending market.

#### ***Proposed Mechanism for Providing Infrastructure Capitalization***

In order to achieve the benefits attendant with the suggested program, the government should take steps to charter a government sponsored enterprise with a mandate to develop and manage an Infrastructure Financing Securitization Program.

This entity could be chartered and capitalized for the purpose of establishing sector-wide credit and documentation standards and formation of a secondary market for debt related to all infrastructure related activities. The GSE would include in its portfolio any financial instrument associated with the development, operation or support of infrastructure activities, regardless of mode or form of participation. For example, a pool of loans related to rubber-tired vehicles could include motor coaches, tractor trailers or airport support equipment. A pool of loans related to asphalt construction equipment could include loans associated with highway, airport or transit applications. Efforts to identify consistencies among the individual loans would supercede differences, in the same fashion as a FNMA home mortgage pool can involve homes valued from \$25,000 to \$ .

The program could focus on the similarities across intermodal transportation modes, thus reducing industry specific financial risks across all levels.

Such an organization could be instituted and operated in a manner similar to existing GSE's such as the Federal National Mortgage Association (FNMA:Fannie-Mae) or the Student Loan Marketing Association (SLMA:Sallie-Mae), the organizations which are responsible for the marketing of the mortgage backed and education loan backed securities programs. Appropriate levels of capital reserve requirements and regulatory oversight could be included in the formative charters of the organization.

An independent organization of this nature could be operated on a self-supporting basis, perhaps requiring a modest level of initial government capitalization, in the same fashion as comparable organizations have been formed. In contrast to some small private sector efforts to securitize selected high-quality transactions, a GSE, through its position as a market maker would be able to provide liquidity to all segments of the sector, as well as to formulate standards for transaction quality and structure on a national basis. Such standards for infrastructure related debt do not currently exist, particularly for newly developing fields, such as private highway development.

Although the quantity of infrastructure related transactions in their current form is not equivalent to the volume of home mortgage transactions, the GSE, through risk analysis and standards formulation could encourage the use of smaller scale funding structures across a broader spectrum of borrowers in order to expand the number of instruments available for pooling. Through evaluation of similar style transactions across many modes and formats, sufficient quantities of homogeneous transactions could be identified to form appropriate levels of risk diversification.

As an example, a pool of debts could be developed using instruments collateralized by three-axled vehicles including such diverse items as motor coaches, highway repair equipment, airplane fueling trucks and truck cabs. Through considering the common financial characteristics of the collateral, the resulting instrument could provide superior investors with levels of risk diversification, not only along geographic or economic factors, but also across modal and usage formats.

The government sponsored enterprise should be structured to serve only as a secondary market participant, purchasing debt transactions initiated by primary lending institutions, state lending pools or through public issue. Such a GSE should also be permitted to issue a certain level of tax-exempt pass-through certificates, in order to provide benefits for issuers of tax-exempt infrastructure debts such as state and municipal authorities. The GSE in such instances may desire to purchase both insured and uninsured municipal debt and price the resulting certificates at different levels.

In this fashion, the GSE would not exist as a competitor to existing market participants, but instead would provide assistance and enhancement to existing market structures in the manners described.

### ***Summary***

It is predicted that by the year 2000, over 80% of all debt in the United States will be securitized in one form or another. It is clear that this financing technology has been accepted by the capital markets as a means for funding several sectors of the domestic economy, which had previously been considered as questionable credit quality. Careful consideration should be given to the use of secondary markets for a broadening of capital investment in the nation's physical plant and support systems.

Through the formation of a government sponsored enterprise for the provision of liquidity in infrastructure related markets, such reinvestment in America can occur in an efficient, market- driven fashion.

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