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UFT
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Revelations in Infrastructure Finance:
A Tale of Two Innovations

Understanding how Dynamic Analysis Supports All-Inclusive Bids™ and Infrastructure CPCs™

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> ***"In the face of steady urbanization and growing service demands, governments are looking to the private sector for new ways of financing public infrastructure."***

Introduction

Governments are commonly subject to budget and financing constraints that limit capital investment. As a consequence, public infrastructure development has not kept pace with population and job growth. This dynamic is causing housing availability and affordability problems that are altering social balance, limiting job creation and income growth, and doing environmental damage in many metropolitan regions.

In the face of steady urbanization and growing service demands, governments are looking to the private sector for new ways of financing public infrastructure. Institutional and other private investors continue searching for reliable sources of yield, but cannot find them with sufficient scale and volume. Governments have been socialized by scarcity and are largely unaware that the very projects they need to see completed coud be positioned to produce just the type of investment opportunities that investors are seeking.

This requires new financing solutions to bridge this gap and meet the needs of governments, institutional investors, and the citizens they both serve. UFT Commercial Finance ("UFT Commercial") and Greenwood Strategic Advisors ("Greenwood") have integrated their respective financing and analytics/ valuation products to create viable solutions for large-scale infrastructure investment.

Innovative New Credit Asset

UFT Commercial is a commercial finance company in the Chicago area and the developer of the Credit Participation Certificate™ or CPC™. CPCs are a new asset class currently comprised of 26 different CPC types that span the yield curve and readily enable the standardized fractionalization of almost any credit type. It is not a credit derivative. Instead, it is a highly scalable vehicle that unitizes credit across a common platform through which investors across the globe can reliably purchase "credit participations" that can fold seamlessly into their portfolios.

Currently, there are CPC products available to address the needs of a variety of credit markets, including trade and receivables finance, mid-market commercial lending, construction finance, mezzanine debt, revenue participation transactions, alternative investments, fund investments, and even, private equity investment exposure. Although the CPC is new and, by comparison to well-trodden credit-debt products in the market, still in its infancy, the need for the CPC is clear.

This CPC demand stems from some significant structural differentiators when you compare its framework to other alternative models in the market today. In building the CPC, UFT Commercial recognized that the technology-fueled fervor surrounding credit "tokenization" as the next generation in global credit distribution is misguided.

"To foster the creation of a truly liquid, free-trading market in credit, uniformity in credit units across different credit transactions is of paramount importance."

The reality is that a credit or loan is fundamentally not a two dimensional asset. Except for the most simplistic of credits, its complexities do not accommodate such an elementary approach. Comparing one credit to another, there is not only the potential, but the expectation, that there will be inconsistencies and transaction-specific customized terms that are simply not conducive to a one-size-fits-all solution. To foster the creation of a truly liquid, free-trading global market in credit, uniformity in credit units across different credit transactions is of paramount importance.

This fundamental awareness of the importance of standardizing underlying source credits that are to be translated into CPCs™ led UFT Commercial to dig deeply into analyzing the way credits are originated *before* turning its attention to how credit can be better distributed. Credit standardization by way of the establishment of master terms and conditions of every source credit is the answer that assures consistency in subsequent credit fractionalization. This produces a CPC that is comprised of truly fungible investment units that will bring about liquidity over time through the natural application of normal market dynamics.

In short, CPCs essentially deconstruct and reconstruct "credit" prior to any CPC issuance to produce a more resilient, and consistent investment vehicle than traditional bond issuances and securitizations. As a result, CPC™ products are conducive to trading — first on an over-the-counter basis and, ultimately when CPC market volumes permit, via a regulated and dedicated CPC global financial exchange to drive daily liquidity.

Applications in Infrastructure

As part of its product roll-out strategy, in 2018, UFT Commercial aimed its CPC products at the infrastructure market and a select few governmental bodies. These products not only take advantage of the core CPC framework, but go one step further to rope in an innovative standardized alternative method for public sector engagement with private sector contractors in the initiation of infrastructure projects. Unlike a conventional infrastructure or municipal bond, the use of an "All-Inclusive Bid™ (*see,* UFTCF Publication P-0808.AIB-LB,*"All-Inclusive Bid™ and the CPC™; Infrastructure with a Lighter Public Balance Sheet Load"*, Original Publication Date 25 October 2018) is designed to work hand-in-hand with the CPC to increase the role of the private sector in infrastructure finance such that today's increased worldwide demand for infrastructure has a way forward.

The first of the infrastructure-based CPC products that supports this structure is the Infrastructure CPC™. This product compares most closely to a conventional infrastructure bond in its purchase and operational behavior. It is purchased by a private sector investor against a cash purchase price and supports the funding or sale of a traditional infrastructure loan or project finance structure into the broader market. However, like all CPC types, the Infrastructure CPC clearly benefits from the universal CPC characteristics described in the previous section, making it more nimble than conventional bond issuances. While it affords the public sector sponsor with the opportunity to benefit from markedly lower project origination costs, it also offers the investor greater transparency to project data, transactional simplicity, and increased potential for market liquidity by comparison with traditional infrastructure bonds. The two-sided benefits to both public and private interests combine to work together to create a product that Is potentially superior to conventional infrastructure finance practices today.

"The Infrastructure Enhancement CPC™ provides the first-ever "cashless" option for investors to gain exposure to infrastructure investments."

The second and most unique CPC™ infrastructure-linked product is the Infrastructure Enhancement CPC™. As part of the UFT Commercial family of Enhancement CPC™ products, the Infrastructure Enhancement CPC permits investors to position "infrastructure" in their investment portfolios in a completely different and previously inaccessible manner. The Infrastructure Enhancement CPC provides the first-ever "cashless" option for investors to gain exposure to infrastructure investments. This means that infrastructure investment exposure can now be used to yield enhance an investor's larger portfolio strategy. This is made possible because the investor acquires an Enhancement CPC by offering its purchase consideration in the form of a standby letter of credit that credit enhances the target infrastructure project. This letter of credit is not intended to be drawn, except primarily upon a default of that project. This permits an investor to participate in an infrastructure project with virtually no opportunity cost to investing, giving them greater patience for longer duration projects. The investor also needn't re-allocate investable capital from preexisting investments in order to introduce infrastructure projects to its portfolio strategy. The Enhancement CPC essentially accesses a new form of previously unavailable, cost-effective investment capacity without the introduction of traditional leverage. When an attractive infrastructure investment opportunity can be presented to an investor in such a way that other investments need not be displaced by the new opportunity, innate transactional friction is reduced and the likelihood of the new investment being introduced to the portfolio is increased. Institutional investors, such as pensions and insurers, can find this especially interesting as it permits them to tolerate early-stage participation in infrastructure projects while enjoying safe portfolio yield enhancement both during project development and thereafter.

Overall, from the public sector or government's perspective, the combination of the CPC and the All-Inclusive Bid™ works together to effectively migrate the financial weight of an infrastructure project from public balance sheets to private project participants who, given their hands-on position in delivering the project, are the appropriate parties to manage the associated risks. From the private investor's perspective, the Infrastructure CPC and Infrastructure Enhancement CPC contribute to the case for introducing or increasing exposure to infrastructure investments as part of a well-rounded portfolio. As for the Infrastructure Enhancement CPC in particular, its active engagement in portfolio will increase an investor's available investment capacity, reduce portfolio through a minimization of opportunity costs of investment, reveal a new source of potentially uncorrelated yield enhancement, and better facilitate cross-border infrastructure investments. However, it is vital to recognize in regard to both of these innovative products and the standardized CPC platform upon which they are built that when brought together with proper technological and data analytics support, both can effectively decrease investor sensitivities to the long-dated nature of infrastructure investments by introducing market liquidity for the CPCs themselves. This would be expected to open up infrastructure investments to a broader investor base than current practices permit, increasing access to much-needed finance for qualifying projects.

Innovative Infrastructure Impact Measurement, Valuation and Data

In driving CPC market liquidity, transparency to underlying data is of paramount importance. Underlying infrastructure asset performance measurement and valuation methods are integral to an investor's valuation of its CPCs and the investor's decisions, especially when trading. A healthy trading environment is central to market liquidity. With this in

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"… the Infrastructure CPC could not be introduced…without…a comprehensive dynamic analysis tool that could assemble ... seemingly disparate public sector data points into a cohesive quantified analysis of the impact, performance, and value of an infrastructure investment."

mind, UFT Commercial recognized early that its Infrastructure CPC™ product solutions could not be introduced in the hopes of perpetuating a healthy and liquid market without the incorporation of a comprehensive and highly specialized dynamic analysis tool that could assemble what are seemingly disparate public sector data points into a cohesive quantified analysis of the impact, performance, and value of an infrastructure investment.

Greenwood is a preferred vendor to UFT Commercial for the purpose of delivering infrastructure valuation services that validate and support CPC™ financing as well as providing risk-mitigation analyses that better ensure good outcomes for development projects that then drive subsequent beneficial impacts and value creation in neighboring communities.

In collaboration with London and other leading cities, Greenwood has developed and proven its unique modeling technology for anticipating and de-risking performance on two critical aspects of infrastructure investment:

- Measuring and reliably anticipating cost and schedule performance on the design/build projects that produce the infrastructure;
- Measuring and reliably anticipating long-term social, environmental, and economic impacts from the infrastructure and its monetization in the form of public cash flows, and valuing the infrastructure on that basis.

Greenwood's technology and services support UFT Commercial's Infrastructure CPC tools from inception and throughout their duration. Fed both by public sector data provided by those governmental bodies and communities that are directly and consequentially impacted by the operation of a particular infrastructure project and by UFT Commercial's continuous monitoring of the behavior and performance of the private sector contractors and participants in the project, Greenwood's software regularly updates infrastructure valuations based on new information about (i) design/build projects, (ii) conditions and expected impacts in effected metropolitan regions (including other infrastructure investments), and (iii) changing macroeconomic and other conditions.

Greenwood's software also stress-tests infrastructure projects and their benefits against prospective risks, and tests risk-mitigation and improvement options for project cost/schedule performance and long-term investment benefits. This is critical in the early detection of changes in project trajectory that could spell disaster at a later stage.

UFT Commercial compiles this information along with other underlying data components gathered throughout the life of the project financing and provides this information to stakeholders in the infrastructure – governments, developers, and investors – to support concise and effective action in their mutual interests and those of the citizenry.

Action and Conclusion

In collaboration with the Mayor of London, the Greater London Authority and Transport for London, Greenwood and UFT Commercial are assessing the feasibility of Infrastructure CPC financing for more than £10B of public investments. Together, we are demonstrating the value of extrapolating key direct as well as consequential data points related to these pilots in support of broader private sector investment participation in CPC products. Ultimately, our collective goal is to illustrate the merits of adopting new public sector strategies to support the social, environmental and economic impacts of infrastructure investments and the likelihood of such projects becoming demonstrably "self-funding" in public cash-flow terms, thanks to increased tax receipts from increased social and economic growth.

Where public borrowing and budgets are constrained, Infrastructure CPC-linked financing -- when initiated in reliance upon an All-Inclusive Bid and supported by the analytical power brought about through Greenwood's systems -- is an affordable alternative to conventional infrastructure financing methods that can increase investment volume, substantially reduce project launch times, and accelerate benefits for citizens, governments and investors.

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