

общероссийская общественная организация РОССИЙСКОЕ ОБЩЕСТВО ОЦЕНЩИКОВ

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The Russian Society of Appraisers, a constituent of IVSC, has considered the IVPB Exposure draft of TIP 1 "The Discounted Cash Flow (DCF) Method – Real Property and Business Valuations" released in February 2011 and prepared its comments in consultation with the Russian Academy of Science' Council on National Property Management Strategy, which we hereby present to the International Valuation Standards Council.

We applaud the ongoing standard-setting efforts of IVSC Boards and hope that IVSC will find these comments to be of assistance in their standard-setting activities.

Ms. Olga Ponomarenko, RSA Public relations officer 04 March, 2011

Attachment: Letter of Comment on TIP 1 "The Discounted Cash Flow (DCF) Method – Real Property and Business Valuations"



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## Russian Society of Appraisers' Comment Letter on The Exposure draft of TIP 1 "The Discounted Cash Flow (DCF) Method – Real Property and Business Valuations"

What follows below are the succinct comments from The Russian Society of Appraisers (RSA) regarding the Technical Information Paper 1 "DCF" Exposure draft released by IVPB in January 2011. They are kept terse -- perhaps unnecessarily so, having regard to the fundamental importance of the subject in the framework of professional valuation -- for ease of accessibility to its main points -- on understanding that more thoroughgoing commentary can be made forthcoming by RSA experts subject to IVPB revealed interest therein intimated to RSA.

Our general observation is that the resulting exposure draft is essentially a neutral nonprescriptive endeavor, reflecting the recently more pronounced trend in IVSC to toothless-tiger type of standards in the area for professional valuation. On the one hand, the "rules-based" leastcommon-denominator style of standard setting policy is a commendably harmless type of activity (including on the level of Technical Information Paper (TIP) guidance which, unlike the Standards proper, can afford itself the license of actually illustrating the best and logically rigorous kind of practice/theory and exhaustively tying it in, verbally and mathematically, with its fundamental general economics moorings). On the other hand, it risks fading these Technical guidance, in conjunction with higher-level standards they intend to expand upon, into irrelevance of their purpose due to conscious over-generality of the course pursued. The envisaged retort that IVSC Guidance-setting activity is not in a style of textbook-writing exercise is understandable for a justification basis, though it is hard not to observe that much of information in the TIP unmistakably reads in a kindred style.

Therefore, our leanings are in support for a type of TIP writing format which is more rigorous and pitched at a higher level of detalization and economics contextualization (this is not to be interpreted expansively with respect to the new Standards proper, however, it is but obvious that the current TIP 1 will be setting a precedent for future series of TIPs in terms of scope, detail and style – hence, this is adduced in justification for this comment). In particular, we propose for each TIP to include a detailed bibliography at its end citing the theory/practice sources (and textbooks) which are taken to represent the best thought and practice in the TIP area. This is where the IVPB efforts to collect a "knowledge database" can find their relevant focus and prominent output.

Further to the point, the TIP series structure should be carefully thought through at the very outset. It would strike as particularly non-consequential (were it not for understanding that the feeder material has already been contained in the old/extant IVS set) to start the TIP series with the Guidance on DCF method, whose proper place, as a method or application, should logically be sandwiched towards the middle of the TIP series. It stands to reason that the TIP series should open with the general Note interpreting economics principles underlying the professional valuation theory. There is a widely held perception in many quarters of our general valuation profession that right now valuation essentially exists without a theory (Canonne-McDonald, 2003)<sup>1</sup>. Perhaps, this can be identified as an area where IVPB can show its lead as a comprehensive professional body with a palpable sense of purpose and mandate which bears no distraction. From such opening and foundation TIP all other TIPs would follow and coalesce into the system.

Having expressed these preliminaries, it is to be said that to our mind TIP 1 Draft is laudably free of any serious explicit conceptual defects or inconsistencies, except for a few smaller matters that are discussed below.

Though TIP 1 is called "Discounted Cash flow (DCF) method...", it is presumably within the scope of this guidance to drop a few statements regarding the interrelationship between DCF framework and the existing methods of income capitalization, such as direct income capitalization, Gordon, Inwood, Ring, Hoskwald formats, etc. Is IVPB of opinion that these are independent methods of comparative valuation, or do they logically follow from DCF under certain assumptions as to the timing and profile of cashflows and discount rates? If the latter position is taken, what are then these assumptions? To avoid additional TIP on capitalization methods, it is therefore recommended to explicitly include the treatment of this issue as a separate section within TIP 1 and to rename it suitably in order to reflect this fact.

It is observed that it is desirable to have TIP 1 open with the discussion of the genesis and nature of DCF analysis (and generally, capitalization methods). It is instructive that Smith-Ricardo-Mill tradition in the Political Economy didn't recognize the capitalization method for the measurement of (real) capital, except ground rent capitalizations, at either micro or macro level, even though valuation practitioners were not averse to using this methodology even at that time. It has fallen to Walras, Marshall, Fisher, Keynes and others to explicitly introduce capitalizations into the texture of Economics as a valid method for accounting for diverse forms of capital and reducing their representation to common numeraire standard. In the second half of 20<sup>th</sup> century some problems have arisen with the validity of this procedure due to the unmooring of numeraire<sup>2</sup> from the commodity standard and emergence of secular erratic inflation as an inherent future of present exogenous monetary regime. This century, especially the last three years, witness revisiting the concepts in all basic vistas of economic theory, including those on which the economic practice is based. Old conventions give way to the debut of new ones, although this is not happening as yet at the nexus of any generally acceptable compromise – such is the present day situation with the standards of financial reporting, a cognate area of endeavor in common pathway with the valuation standards. This makes it necessary to reopen, in an openminded spirit free of "convention", a thorough investigation into economics rationale for capitalization procedures, with the involvement of economists. The sponsorship in this matter of such prestigious valuation institution as IVSC will be highly welcome, while the involvement of creditable economists will prevent the research from incompetently degenerating into a factional wishful thinking divorced from the substance of economic logic and oiled on the groves of runof-the-mill in valuation routine.

<sup>&</sup>lt;sup>1</sup> Jean Canonne and Roderick J. Macdonald "Valuation without Value Theory: A North American "Appraisal", Journal of Real Estate Practice and Education VOLUME 6, NUMBER 1, 2003

<sup>&</sup>lt;sup>2</sup> Numeraire is a unit of account, in present global economic set-up also doubling as money and thus creating

<sup>&</sup>quot;liquidity effects" that impair fundamental value objectives in economic measurements expressed through money.

Further points that we wish to make are consonant with the issues raised by IVPB editorial board itself; consequently, we shall proceed by answering those "questions for respondents":

1) "This Exposure Draft states that the DCF method should not be judged on the basis of whether or not the explicit cash flow assumptions are ultimately realized but rather on the degree of market support for the assumptions at the time they were made. Do you agree that the DCF method, if properly applied, can be used as a method to arrive at market value?»

Although it depends on the exact economic logic of market value (as distinct from price on the market), which is not now explicit, judging from putative theory, practice and conventions, we see no reason why DCF should not be allowed to serve this purpose. In our view, DCF methodology is consonant with the general logic of real and financial capital process, as evidenced by the recognition of DCF in economic theory of various countries and its applications, including in Russia, since 1960s.

2) "The IVPB has concluded that although there may be distinct terms and types of analyses that apply respectively to real property valuations and business valuations, the underlying DCF method is identical in each case. Do you agree that the underlying DCF method described in this paper applies equally to the valuation of real property and businesses? If not, please explain the differences that you believe exist?"

We agree that DCF analysis can be adapted to valuations of both real and financial capital. But each of these areas, regardless of their finer gradations, has its own distinct perspectives respecting DCF analysis and, especially, the discounting practice (See Mikerin & Artemenkov  $(2008)^3$  on this). In the context of The TIP Draft, and as a first approximation, it seems reasonable to adopt this view.

3) "This Exposure Draft states that the discount rate should be determined based on the risk associated with the cash flows (para 10), whether the DCF model is being used to determine a market value or investment value. Do you agree, or do you consider that other matters should be taken into account in determining the appropriate discount rate?"

The concept of risk without further specifications of the meaning is too vague to serve as a definitional aspect of the discount rates. For example, it should not feature in the definition if the certainty-equivalent cashflow discounting technique is used. In line with the least-commondenominator approach adopted in TIP 1 Draft, we find the definition of discount rate, used in the "Definitions" section of the TIP, short and sweet (although, see below for the suggested elaboration of this definition). Any more explicit definition should stress the "opportunity returns" aspect of the discount rate, rather than its more controversial, or under-specified, risk aspect. It should be borne in mind that sometimes time-varying nominal discount rates are used in DCF analyses, e.g. to reflect the changing pace of expected inflation, thus, the linkage should be made more explicit as to such opportunity, e.g. by referring to "discount rate(s)", rather than "discount rate". In conjunction with our opening comments, some sort of distinction should be attempted between discount rates, capitalization rates, and capitalization ratios, as these are explicitly not one and the same concept (Michaletz, Artemenkov & Artemenkov, 2007)4. It can be indicated that discount rates perform "normative" (subject-specific) function in searching for investment values, i.e. they reflect specific opportunity returns or time-preference of a particular instructing investor (though it is questionable if we can speak of time preference, if investor is an institutional entity), whereas the role of discount rates in developing market value appraisals is "positive" (market-reflective) in that they reflect expected opportunity returns (both on income and capital account) on portfolios of typical investors present on the given

<sup>&</sup>lt;sup>3</sup> Artemenkov A.I., Mikerin G.I., Artemenkov I.L. (2008). Professional Valuation and Investment Financial Valuation: Distinctions in Valuations for Private and Public Markets // The Appraisal Journal. 2008. V. LXXVI, N 4. P. 355–371.

<sup>&</sup>lt;sup>4</sup> Michaletz, V, Artemenkov, A. and Artemenkov, I., "Income Approach and Discount Rates for Valuing Income-Producing Illiquid Assets - Outlines of New Framework: Revisiting the Concepts in Income Approach and Developing the Model of Illiquid Assets Transactional Pricing", ICFAI Journal of Applied Finance, December 2007; Available at SSRN: http://ssrn.com/abstract=996016

market where property would be supposed to be transacted. However, other approaches to this matter take issue with the "representative firm" train of thought and stress the marginal nature of competitive market transaction process, framing it in the analytics of sharing the gains from marginal trades. According to this view, physical capital market activity is largely driven by differences in the discount rates of market participants, e.g. see Smolyak (2006)<sup>5</sup>.

4) "A number of different methods are identified which can be applied to the calculation of the terminal value at the end of the cash flow period (growth, fading growth, net asset value, salvage value, etc). For long-life real property assets or going concern businesses the Board believes a constant growth model is the most commonly used method, coupled with a cross check for the reasonableness of the figure, eg by reference to the implied exit multiple. Do you agree that the most commonly adopted terminal value calculation at the end of the explicit forecast period is the 'constant growth' model, cross-checked for sensibility to an implied capitalisation rate or exit multiple? If not please identify what other method you most commonly use? "

The answer to this question hinges on whether we imply 'constant growth model' to be on nominal growth or real growth terms. We are not in disagreement that, to the extent structural inflation is an abiding feature of the money measuring rod, constant growth model applied to cash flows expressed in nominal terms has a claim to be a widely recognized method for reversionary value assessments (and not only them). However, to think that we can project constant real (as opposed to nominal) growth of income into perpetuity is unreasonable -- in view of the stationary state concept familiar in the settings of market and macroeconomic analyses. We support the idea that reversionary value estimates should be fundamental values, and not some speculative assessments (unless otherwise instructed by clients in investment value settings). To this extent, it is suggested that the logically defensible practice is to be very conservative with the estimates of real growth into perpetuity. Consequently, it is encouraged that TIP 1 formulations should be sufficiently self-conscious to distinguish more sharply between assessments made on real and nominal income basis, -- as the best practices to pursue depend on the basis chosen.

5) "The Exposure Draft explains that cash flows can be developed on the basis of alternative financial assumptions, eg inclusive or exclusive of anticipated inflation, inclusive or exclusive of tax etc. Providing the discount rate used is consistent with the financial assumptions in the cash flows the valuation result should not be affected by the alternative used. Do you agree that providing a discount rate is used that is consistent with the financial assumptions made in calculating the cash flows that the choice of using explicit or implicit financial assumptions in the cash flows should not affect the valuation result?"

It is always possible to make valuations "consistent" with something by tinkering with the discount rate(s). However, what is the benchmark technique to which all possible modifications/deviations from it should conform/be made consistent with in terms of result equivalency via discount rate adjustments?

It is a widely held instinct to use assessments prepared on the before-tax basis as a simplifying "first approximation". On this basis, it is understandable that approximations of greater order will not fail to lead to somewhat different results, reflecting innate organic diversities in the strengths of market participants. It is somewhat disingenuous to think that the market value, in its economic foundation, is a point (and not interval) concept in capital markets whose constitution doesn't fully uphold the realization of economic "law of one price". Consequently, the disparity of results of different valid methods (i.e. before-tax vs. after-tax, debt-inclusive or debt-exclusive, and of their different combinations, or modifications within each such grouping) indicates the range of interval characteristic of admissible market value prices. That we choose to

<sup>&</sup>lt;sup>5</sup> S.A. Smolyak, Cash flow discounting in investment project efficiency evaluation and property valuation, Moscow: Nauka publishers, 2006

express market value as a point indication is beside the point, but clouds the reasonable economic perspective that should attend the perception of these issues.

With reference to real vs. nominal value DCF models, it should be indicated that there is no agreement here among either practical theorists or practitioners, and much depends on the subject- or country-specific practice or valuer's preferences. The available research indicates that real- or nominal- value models yield widely differing results, even when consistently applied (in the sense of adjustments recommended by financial economics literature). See, e.g. Valez-Pereia, 2005 [6]. The case for real-value models can be reviewed in Jefferies (2009)<sup>7</sup>. Russian input on this favouring real-value techniques, is provided in Smolyak (2006), although it has to be admitted that property valuation in the country, whenever it employs DCF, mostly maintains nominal-value, after-debt, after-tax complexion.

6) "This Exposure Draft is intended to identify best practice in the creation and application of discounted cash flow models. The Board has made the decision not to explain in detail the types of inputs that may be used in different situations or the investigations that may be appropriate. Neither are illustrative examples provided. The preliminary view of the Board is that detailed discussion of inputs or a limited range of examples is inappropriate because it could be misleading if it led readers to believe that these models were endorsed by IVSC or conversely, variations of these models in different situations were not appropriate. There are many industry specific sources for those who require training in the development and use of relevant DCF models. Do you agree that more detailed discussion and examples of the valuation inputs into a discounted cash flow model are inappropriate? If not how much additional information do you think should be included in best practice guidance?"

The answer to this question has already been adumbrated in our opening comments. Yes, we believe that IVPB should convey more in its TIPs than mere bargain-basement observations. They should serve as a first-reference source of logically rigorous theory and related practical applications. There is nothing in the concerns of this question that can't be easily addressed by appropriate comments/reservations in the text of the TIP. Also refer above to our idea for bibliographic notes/knowledge bases to be appended to TIPs (or maintained online and updated regularly) which would distill the most rigorous "industry specific sources". Illustrative examples also would be most welcome, where they are needed, which is hardly the case with the TIP1 draft in its present level of complexity.

In conclusion, here are a few sentences from the TIP 1 Draft which are in evident need of improvement to avoid most plain inconsistencies or one-sidedness:

In par. 5 (the definition of Discount rate): "Discount Rate(s)– is a market <u>or investor specific</u> <u>opportunity</u> rate of return used to convert a monetary sum, payable or receivable in the future, into a present value. <u>It reflects expected returns on alternative investments available to the</u> <u>typical market participants or specific investors. Sometimes allowances are made in</u> <u>discount rates to reflect risks incident to analyzed cash flows, or expected changes in going</u> <u>interest rates, or inflation. Depending on account for the latter, discount rates can be</u> <u>expressed on nominal- or real- value basis.</u>" – the highlighted words have been inserted into the definition in line with the scope of the TIP and foregoing discussion.

<sup>&</sup>lt;sup>6</sup> Velez-Pareja, Ignacio, Cash Flow Valuation in an Inflationary World: The case of World Bank for Regulated Firms (February 24, 2005). Available at SSRN: <u>http://ssrn.com/abstract=643266</u>. This work indicates the margin of disparity of 21% between the constant dollar- and nominal dollar- model estimates. Margins of such magnitude are typical, especially in inflationary environments.

<sup>&</sup>lt;sup>7</sup> Jefferies R., A brief history and development of "Real Value" valuation models – The last four decades", a Paper presented at the Pacific Rim Real Estate Society Conference, Sydney, Australia, 18-21 January, 2009, Available online at:

http://researcharchive.lincoln.ac.nz/dspace/bitstream/10182/1247/1/Jefferies\_A\_Brief\_History\_And\_Development\_ Of.pdf

In par. 5 (the definition of Free Cash flow): "Free Cash Flow – is the cash flow for an asset or business derived on an *annual* basis by deducting...." -- It is nowhere made clear why should it be the annual basis only, and the practice differs. It is more proper to say "periodic", instead of "annual".

In par. 16 k) (Structure of DCF models): "The discount rate should be selected from comparable businesses in the market..." – it strikes us there is a potential for confusion of terms of reference in this wording. What can immediately be observed on the market for businesses are capitalization ratios, not the discount rates, though the two concepts are, of course, interrelated. Capitalization ratios available in the market for comparable businesses are growth implicit, and represent a combination of a set of discount rates with certain growth attributes. Analysis of comparable businesses should take account of this, if the market discount rates are to be developed on the basis of such comparisons.

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