TECHNICAL OPINION
CONCESSION FEES PAID IN INSTALLMENTS OVER THE CONCESSION CONTRACT

January, 2012

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CONCESSION FEES PAID IN INSTALLMENTS OVER THE CONCESSION CONTRACT

1. INTRODUCTION

It became aware in October, 2011, that the agenda of the IFRS Interpretation Committee includes some projects to change IFRIC 12 Service Concession Arrangements.

Our focus is related to the "Payments made by an operator in a service concession arrangement" project, which is detailed in the Staff Paper to be discussed in the meetings of that Committee. These payments include what we call, in Brazil, the Granting Right.

Specifically, the submitter requested that the Committee clarify in what circumstances (if any) certain contractual costs to be incurred by the operator under the service concession arrangement should:

a) be recognized at the start of the concession as an asset with an obligation to make the related payments; or

b) be treated as executory in nature, to be recognized over the term of the concession arrangement.

As we can verify, this was, since the beginning, and still is, the great accounting issue to be solved and it is exactly what we will approach in this study.

Let's see the evolution of the subject.

IFRIC 12 was issued in November 30, 2006, with the following explanation:

Service concessions are arrangements whereby a government or other public sector entity grants contracts for the supply of public services – such as roads, airports, prisons and energy and water supply and distribution facilities – to private sector operators.

IFRIC 12 draws a distinction between the two types of service concession arrangement. In one, the operator receives a financial asset, i.e. an unconditional contractual right to receive cash or another financial asset from the government in return for constructing or upgrading the public sector asset; in the other, the operator receives an intangible asset, i.e. no more than a right to charge for use of the public sector asset that it constructs or upgrades. A right to charge users is not an unconditional right to receive cash because the amounts are contingent on the extent to which the public uses the service.

Let's keep in mind that this Interpretation was issued after a long process of discussions, especially in the Public Hearing from 2005 and only concluded in 2006. 77 comment letters, including 4 from Brazil were received. Several questions raised by the letters were not accepted for the final text of the IFRIC 12, especially: the requirement to recognize revenue for the construction service, the concept of control and the fact that the discussion was based in an Interpretation instead of a Standard.

Regarding the discussion of services concession in Brazil, in 2001 there was a public hearing promoted by CVM (Comissão de Valores Mobiliários – equivalent to SEC) to discuss the accounting distortions raised at that time (prior to IFRIC 12). These distortions were related to the different ways to recognize the concession fee (capitalization versus executory). This fact, which was fully accepted and required by the fiscal and corporate law, derives from a flaw in the accounting model in Brazil as a whole, applicable to any enterprises of all sectors, not only to highway concessions. For this reason, some companies changed their accounting model to executory instead of capitalization. CVM, then, decided not to change the accounting model and wait for the announced studies for an international standard on concessions to be issued by IASB, as well as an evolution in the Brazilian corporate law (Law 6404/76).

1.1. ADOPTION OF IFRIC 12 IN BRAZIL

Meeting the commitment of the Brazil's total convergence to the IFRS Standards, we had a long process of understanding and acceptance of the new accounting procedures for service concessions, involving the most varied affected professionals and from several sectors.

From IFRIC 12, CPC (Accounting Pronouncements Committee) issued and regulators adopted ICPC 01, which is called Technical Interpretation ICPC 01 – Concession Contracts. This interpretation is a translation of IFRIC 12 and was discussed and approved at a Public Hearing. The implementation was mandatory to all companies in the balance of December 31, 2010.

The applicability to many other sectors was higher than expected, as well as the level of problems, doubts and difficulties. Consequently, aiming at solving these problems, CVM created a Working Group involving professionals of all areas and interests, to discuss them, for several months. The conclusions of the Group were summarized in a separate document from CPC entitled OCPC 05 GUIDANCE – Concession Contracts finally approved and issued in December 3, 2010. This document was also approved after a Public Hearing.

What about the Granting Right?

The text of OCPC 05 mentions that this subject is not dealt with in ICPC 01 and gives some guidance and also mentions that there are two lines of understanding, and both are practiced in Brazil nowadays by the concessionaires:

a) the one that understands that the contract is executory, and

b) the one that understands the right and the correspondent obligation are known to the concessionaire at the inception of the concession contract.

It is clear that the issue of the granting right and if it should be capitalized or not, is still undefined, and this is applicable not only to Brazil.

For this reason, this subject is being discussed and it became a concern for companies, which are requesting the IFRS Committee to clarify these doubts.

For the same reason, its discussion concerns several companies, due to the relevance of the theme, as well as regulators, especially in Brazil.

It is exactly for this relevance that a deeper study of this theme is justified to identify the effects in the balance sheet and income statement of the companies, considering the several accounting alternatives and it is exactly what we are trying to develop with this Technical Opinion.

2. MAIN ISSUES IN DISCUSSION

2.1. Are payments made in installments considered Assets? Are there any undesirable secondary effects in case of occurrence?

The first great discussion of a concession contract with payments in installments is the one related to the question: does the contract that stipulates this way of payment generates an asset to the concessionaire?

This is, in fact, the great question in discussion worldwide. IASB included the discussion of this theme in the agenda through the IFRS Interpretations Committee due to submissions received, as follows:

"Specifically, the submitter requested that the Committee clarify in what circumstances (if any) certain contractual costs to be incurred by the operator under the service concession arrangement should:

(a) be recognized at the start of the concession as an asset with an obligation to make the related payments; or

(b) be treated as executory in nature, to be recognized over the term of the concession arrangement."

Great doubts are arising among the professionals on this matter due to many reasons:

a) <u>Executory Nature</u>
Is the concession contract with payments to be made over the term of the concession, in fact, an executory contract, since the fulfilling of the obligation of the concessionaire related to payment for the future months and years is subordinate to the future attendance, by the grantor, to put the asset(s) or right(s) at the disposal of the concessionaire? And, currently, executory contracts are not accounted for in assets or in liabilities.

b) <u>Possible Cancellation</u>
Many concession contracts are liable to cancellation or another legal way of termination, when, at most, a fine is imposed to the concessionaire, but not the obligation of liquidation of future installments in full. Does it not strengthen the concept of an executory contract?

c) Long Term Operation

It is clear that the signing of the contract implies, implicitly, on the assumption of the hypothesis that the contractor and the contracted have the same purpose of carrying out the object of the business until the end. But this is the same situation of simple rentals and operational leases. And, for now, there are no effective changes in the accounting of these contractual arrangements in the IASB standards. Thus, the argument that there is the intention of execution of the contract until the end is not enough to characterize that the obligation for the full payment of future installments exists at each balance sheet date.

d) Investments Commitment

It is also clear that the existence of certain mandatory investments to be made by the concessionaire, mainly at the beginning of the contract, results in the strengthening of the perspective of operation continuity until the end. Even so, it does not mean that it is mandatory to the parties irrevocably. Therefore, it might occur with the facilities installed by the leaseholder to put in use an asset, even if as operational lease. For that reason, any initial investment is always based on the expectation related to the future and to the return to be obtained. Is it, currently, a fact for liabilities recognition? A property can be in an advanced stage of construction, but its non conclusion may entail the loss of all the investment made. Despite that fact, the amount needed for the conclusion is not recognized as liability. Accordingly, the existence of an investment commitment over the concession contract is also not enough to demand the understanding that there is a payment obligation of the future installments at each balance sheet date.

e) Preliminary Conclusion

These and many other arguments lead us to the conclusion that the characterization of a concession contract with installments to be paid over the term of the contract, as executory contract or not, is extremely difficult.

f) Other Changes in Accounting Practices

Furthermore, the changes IASB intends to make to the accounting of certain contracts related to operational leasing may put at risk the comparativeness of financial statements as of the effective adoption of procedures which may be affected. However known IASB intentions of changes, nothing guarantees that they will be implemented and, if so, whether they will be exactly as they are being discussed today. Therefore, it is advisable to wait for the implementation of the standards on operational leasing before defining the rules of concession contracts with installments to be paid over the contract.

g) Magnitude of the Theme

This, solely, leads to the great difficulty of the recognition as asset, currently, of the concession right when concession fees are for payment in installments over the contract term. But there are other aspects to consider. For instance, the impact of accounting, as asset, this future amount, even if discounted at present value is great, especially by the recognition, at liabilities, of its contra entry. The debt/equity relations cause drastic changes to the equity position of the concessionaires.

h) Mismatch in Debt/Equity Relation

The recognition of that liability, as a present obligation which, in fact, becomes effective in the future, shows also a temporary mismatch: all the debt is recorded on liabilities, at its present value, as the asset initially recorded the same amount but, later, an imbalance arises because the write-offs are made according to different criteria from the assets write-off. Obviously, this is typical for any property, plant and equipment or – financed intangible; the special problem lies, in the case of concession contracts, in the great magnitude of the amounts related to the equity, generating the possibility of great imbalances to the balance sheets. This imbalance is not so significant in practically any other type of business in economy, comparatively to the concessions of public services. The debt/equity leverage amount in this sector is not usually found in any other industry, unless the banks, where this kind of imbalance never occurs and, if it does, the continuity of the entity will be, in fact, at risk, differently from the issue at hand. Further, this will be clearer in this study. The important thing is that, due to this imbalance, which is clear, the recognition of the asset tends to generate doubts on the entity's financial situation, which should not happen.

i) Mismatch on Profit

The consequence, on income, is also dramatic, by the known mismatch deriving from the financial expenses appropriation. These begin very high and are reduced over time by the liability's progressive amortization, generating increasing profit. Cash flow, on the other hand, can be constant, due to payment in constant installments (installments for payment of decreasing interest while the installments for amortization of the debt are increasing), which obligates the retention of cash in the entity due to the non-availability of accounting accumulated profit for the dividend distribution; distribution will only occur when the situation is inverted, that is, when the profit of each period is higher than the cash flow of the same period. This mismatch is difficult to be understood by users.

j) Consequences on Companies Value Measurement

And the worse consequence is that it interferes in the value of the companies, especially when measured by flow of dividends. Even when measured by the discounted cash flow, in a well-done appraisal, it interferes significantly, since in many countries there is no possibility to withdraw the exceeding cash in the entity due to legal restrictions. Such restrictions, both for the not possibility of income distribution to shareholders in the absence of accumulated profit, as well as the impediment to devolution of capital.

k) The Greatest Misstatement – Indexation of Liabilities Totally on Income

The problem becomes even worse on countries where the commercial practice is that these fixed installments are subject to an indexation based on a price index, normally inflation. Following, the current standards (especially IAS 21), the monetary adjustment on only one side of the balance sheet, that is, the debt side, produces misstatements which normally leads to a situation that goes completely against the objective of the financial statements as established at *The Conceptual Framework of Financial Reporting* and IAS 1. ("*The objective of general purpose financial reporting is to provide financial information about the reporting entity that is useful to existing and potential investors, lenders and other creditors in making decisions about providing resources to the entity.")*. It is fairly common that these financial statements do not reliably show the financial position and performance of the entity, going against the view given at cash flow, which generally does show the reality.

l) A Critical Broad View

I. All this leads to the need of a critical view, not only of the conceptual aspects involved (the type of executory contract or acquired asset), but also the practical consequences of the adoption of one or another model. Accounting cannot be lead solely by the practical aspects, but also not solely by the conceptual aspects being adopted at a certain moment if, from it, information arises that is really misstated and, in fact, do not represent the reality of the entity and its performance.

II. The great discussion of using the executory contract method or the capitalization of future installments method represents the effective acquisition of an accountable concession right. The meeting of all characteristics for the asset recognition is a hard task.

III. The measurement problems are there and are of great magnitude when future installments are variable, in terms of revenue, for instance, when it becomes difficult to determine, in a reliable way, in certain situations.

IV. The greatest difficulty, however, lies in the existence of contracts demanding future investments distributed for several years over the contract to obtain the exploration right. How to reliably measure these future disbursements for the asset recognition as of the beginning of the contract?

V. And when contracts are, for instance, composed by the three forms? One part paid in fixed installments, another with variable installments according to revenue and the other disbursed as new investments?

VI. Either we account every form or none at all, since there seems to be no logic in only capitalizing in the case of fixed installments.

Based on what was stated above, the objective now is to explore these points, with simulations and technical arguments, as follows.

3. CONCESSION FEES PAID IN FIXED INSTALLMENTS

3.1. Illustration of the practical effects to recognize or not, as assets, concession contracts with concession fees paid over the contract term, even with no indexation of the due installments

As stated before, one of the significantly harmful consequences of the recognition as asset of the concession right paid in installments over the contract term is shown in the balance sheet. But not only the debt level and the relation between liabilities and equity change dramatically.

Just as an example, let's assume an entity with the following initial data, inspired in an actual case where this data refers to the end of 1997:

BASIC ASSUMPTIONS		
Present value interest rate	5%	
Concession term	20	
Concession fee @ inception	R$ 1.600.000	thousands
Number of Installments	20	
Installments value at inception	R$ 80.000	thousands
Toll revenues in the first year	R$ 100.000	thousands
Working capital = Beginning Equity	R$ 100.000	thousands
Initial Intangible = Beginning Liability	R$ 996.977	(Present value)
No other revenues or costs		
Distribution of dividends	100%	of the profit

3.1.1. Effects on income and balance sheet of the executory contract

In the hypothesis of accounting as executory contract, assuming that the company receives $ 100.000 as revenue for the charged rate (tariff), and spends $ 80.000 for the concession fees payment, in the absence of other revenues and expenses, including tax on income, can distribute $ 20.000 of dividends for 20 years, homogeneously (also omitted here any variation of price or volume).

The income and cash flow will absolutely coincide all the time:

Revenue	100.000
Concession Fees	(80.000)
Net profit = Cash flow from operations	20.000
Dividends	(20.000)
Net Cash Flow	-

Chart 1

And income will be exactly the same also over the 20 years:

Working capital	100.000
Net Intangible Asset	-
Assets	100.000
Liability	-
Equity	100.000
L + E	100.000

Chart 2

These financial statements are very easy to be understood by any user; income matches cash flow, profit shown constantly, in a straight line over time, financial position very balanced. And the explanatory notes would complement the information on the concession exploration right. The obligation of payment of concession fees is recorded on the statement of income and, obviously, also in the notes.

3.1.2. Effects on income and balance sheet at capitalization

Now, in case of conclusion for the acceptance of the exploration right as intangible asset recognizable in accounting and, consequently, the full obligation of payments of all future installments in the liability, the balance sheet changes drastically.

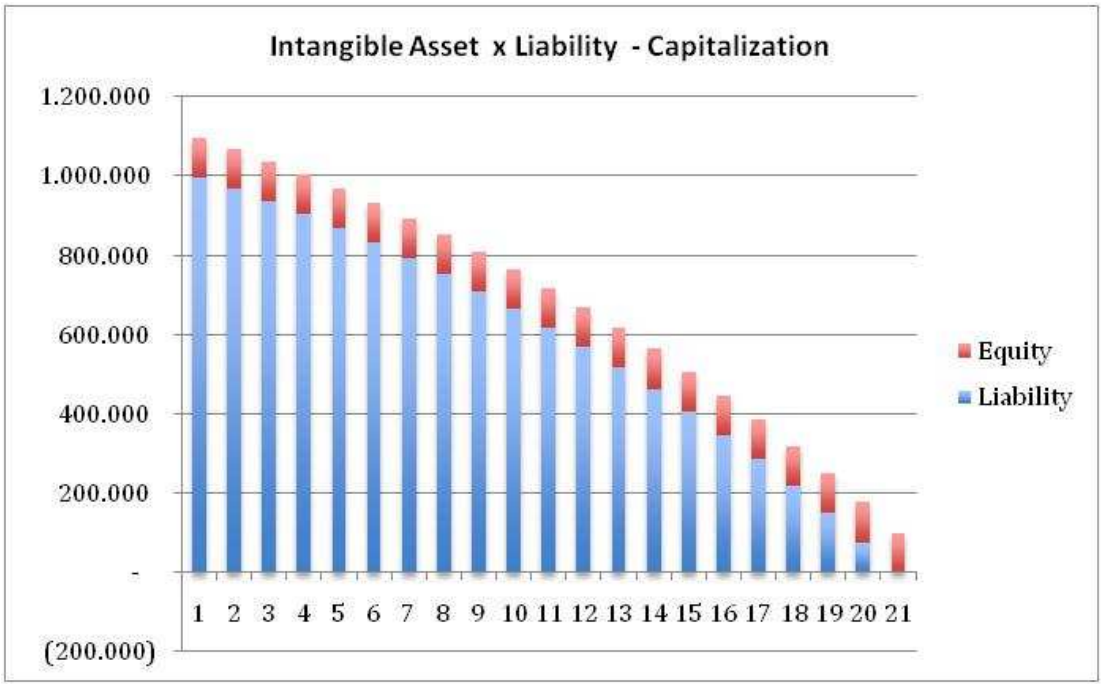
The balance sheet right before the operations and at the end of the first year added the income of the year is, as follows:

	1997	1998
Working capital	100.000	119.698
Net Intangible Asset	996.977	947.128
Assets	1.096.977	1.066.826
Liability	996.977	966.826
Equity	100.000	100.000
L + E	1.096.977	1.066.826

Chart 3

Nothing changes in essence related to the previous situation, but the **relation between debts and equity is 10 to 1** on the first balance sheet and is still practically the same at the end of the first year. This relation is totally irregular in the business world (except for banks. **For that matter, many countries today have an indebtedness limit lower than that, even for bank institutions.**)

The graphic representation of this example up to the last year of liability and equity is, as follows:



Graph 1

It is very clear that the relation between debts and own capital is frightening at first and almost all the way to the end of the contract term.

More regular debt/equity relations will only appear in the last quarter, that is, in the last five years of this period.

Obviously, this level of indebtedness does not represent any financial difficulty to the company at any point over the contract term. Consequently, the statements do not show reliably the reality of the company.

Income statements for the first two years are, as follows:

Income Statement	1998	1999
Revenue	100.000	100.000
Amortization of intangible	(49.849)	(49.849)
Interest - Reversal of PV of Liability	(49.849)	(48.341)
Net profit	302	1.810

.Chart 4

Rate of return on equity of 0.3% per year in the first year, and 1.8% in the second. The last two years, as follows:

Income Statement	2016	2017
Revenue	100.000	100.000
Amortization of intangible	(49.849)	(49.849)
Interest - Reversal of PV of Liability	(7.438)	(3.810)
Net profit	42.714	46.342

Chart 5

Rate of return on equity of 43% in the penultimate year and of 46% in the last year. Absurdly growing profit comparing to prior years! And this is because of the unfair accounting appropriation of financial expenses, because, before them, the profit is totally constant.

3.1.3. Effects on cash flow

But, let's see the cash flows of the same entity in the same four periods:

Cash Flow	1998	1999
Revenues	100.000	100.000
Installment	(80.000)	(80.000)
From Operations	**20.000**	**20.000**
Dividends	(302)	(1.810)
Net Cash Flow	19.698	18.190

Chart 6

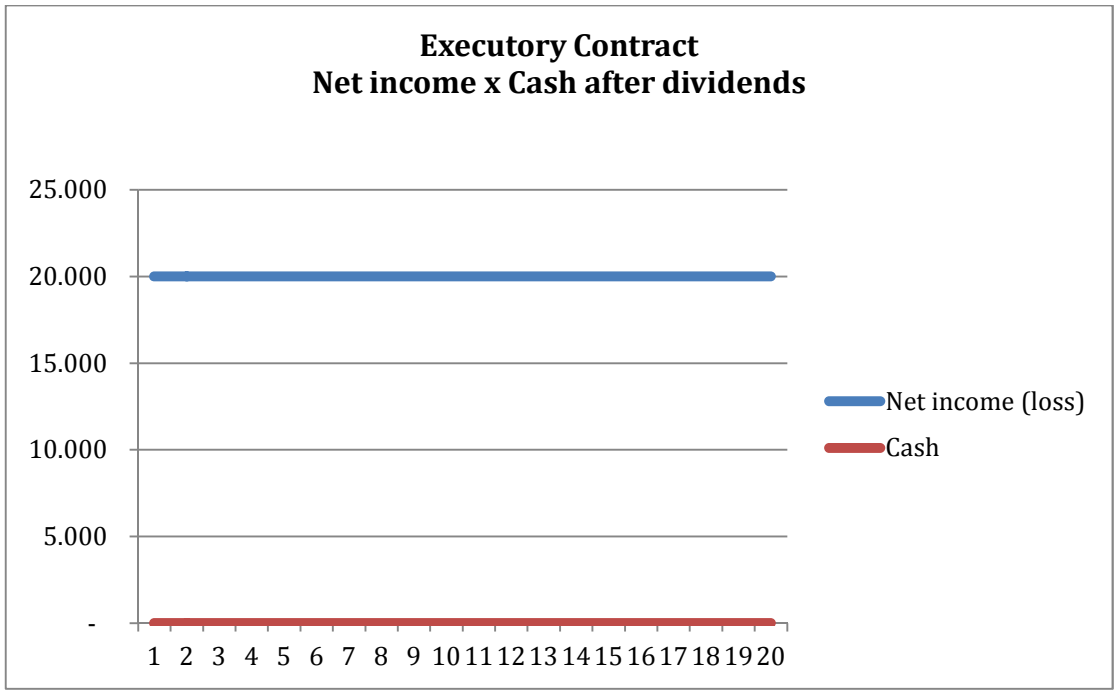
The cash flow derived from the operations is always constant, but the total net variation of cash is not, it is the complete opposite. Withheld on cash, $ 19.698 in the first year, since there could be distributed, at most, $ 302 of dividends, which is the profit amount, as stated above. On the second year, the accumulated cash effect is $ 18.190, which makes it impossible to be distributed also due to the lack of accumulated profit. But, in the last years:

Cash Flow	2016	2017
Revenues	100.000	100.000
Installment	(80.000)	(80.000)
From Operations	**20.000**	**20.000**
Dividends	(42.714)	(46.342)
Net Cash Flow	(22.714)	(26.342)

Chart 7

The cash flow from operations is still constant, but since there is great profit in the last years and enough cash withheld, large dividends are distributed, compensating the initial shortage.

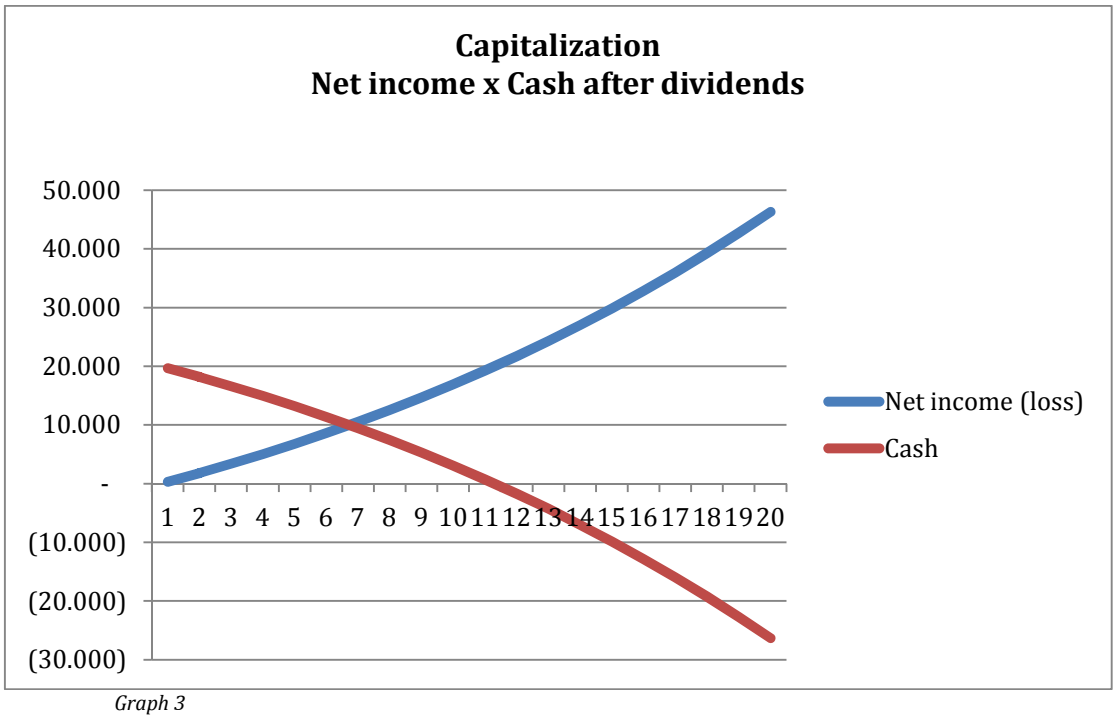
To a broader idea, over time, see the chart of net profit and net cash flow relation (after the dividends) in both accounting models:



Graph 2

As known, profit and cash flow from operations are the same, and the dividends are the same for both, which causes no accumulation of cash in this accounting model.

In the capitalization of the concession right, occurs something that is completely different:



Graph 3

Despite the profit before the financial expenses and the cash of operations being constant, the net profit is increasing and net cash is decreasing; this net cash is decreasing because the dividends are increasing.

We can see that not only the conceptual aspects should be considered for the accounting standardization process. It is necessary to consider carefully the informative capacity of the models for the benefit of the user view. Models theoretically more correct may hinder the understanding of users and, even worse, give the idea that the financial situation does not faithfully represent reality.

3.2. Effects on company value

Even more, the difference of models have effective implications on cash flows to owners.

Last, but not least important, the difference between the models have effective implications on the company's value measurement.

In order to discuss a bit about that last statement, let's consider the following: in the case of the model with capitalization of future installments, the dividend flow is greatly deferred to the future. That could only be compensated if withheld cash could be applied at the exact same return rate that the company's operation can have. In practice, this is totally unfeasible. That is, withheld cash that cannot produce an adequate rate of return produces reduction in the company's value, as stated in literature and evident in all valuation practices.

This example company has a cash generation capacity of 20% on the value invested by the partners ($ 20.000/$ 100.000). In the executory contract model, cash would be totally, including legally, distributable to partners. In the capitalization model, the exceeding cash attributed to profit to the partners would only be possible if there were the possibility of devolution of capital to partners, which is extremely hard – or impossible in many jurisdictions for legal limitation problems, especially in the case of public service concessionaires.

To the extreme case of impossibility of attribution to partners of the withheld cash, which may the prevailing case in most jurisdictions, and also the extreme case of not generating finance income of the amount of withheld cash, we have an own capital cost of 8% per year in this example, as follows:

In the case of the **executory contract**, the value of the company would have been given by present value of cash distributed over the 20 years. That would give us:

Value of the company = E = NVP(8%;$Dividend_1$:$Dividend_{20}$) = **$196.362,95**

In the case of capitalization of concession right:

Value of the company = C = NVP(8%;Dividend$_1$:Dividend$_{20}$) **= $139.849,74**

The value of the company in the executory contract is 40% higher than in the capitalization model, in this example.

Obviously, the difference above could be not so great in practice, since the withheld cash would be applied financially, but in normal situations would not even get this return of 5% being used for present value calculations of the capitalized liability. Therefore, the difference would be smaller, but would always exist and would be substantial. In any way, this difference would always be very relevant.

4. CONCESSION FEES PAID WITH FIXED INSTALLMENTS, BUT ADJUSTABLE – *TRADITIONAL ACCOUNTING TREATMENT*

4.1. Introduction

In the case of fixed installments that are adjustable by any price index (assuming here the most normal case, when the adjustment would be inflation-based), the normal is that the same adjustment should be applied to the rate value (tariff) charged at the exploration of the service, which become revenues of companies. In the case of the roads in Brazil, this is the contractual rule (toll charges).

It is clear that, in the case of the **executory contract**, nothing changes in reality, only changes in nominal values. The revenue increases, in our example, by the inflation rate, and also the concession fees and the cash flow and **nothing, absolutely nothing, changes regarding all conclusions reached in the previous item.**

In the case of the hypothesis of **capitalization** of right and debt, the situation becomes dramatic for the application of the current accounting standards. That is because, when we update the liabilities, we are obligated to update it all, **which means the future updating of all future installments to be paid, with the contra entry charging the income of only one period, the current.**

In countries with hyperinflation there is still a way of compensation: the intangible asset is monetarily updated and there is a compensation on income according to IAS 29; if both monetary adjustments are made by the same index, there are no additional problems to those seen in the previous item.

However, because the application of IAS 29 is a situation that does not apply to the great majority of jurisdictions, what occurs is a misstatement as if it were, in practice, a “one-legged” accounting, with the liability suffering a growth in its biggest component, while the asset does not change, **unbalancing and distorting the presentation of the equity reality.**

For a better visualization, let’s assume basically the same premises of the examples dealt with in the previous item, only adding the adjustment effects of concession fees and revenues. Because the effects related to the dividends were already explored, in order to facilitate, let’s admit that cash is always withheld. And, to simplify even more, let’s admit the absence of net working capital and initial capital. Consequently, equity will always be derived from accumulated profit. This is what we will have:

BASIC ASSUMPTIONS		
Present value **real** interest rate	5%	
Concession term	20	
Concession fee @ inception	$1.600.000	thousands
Number of Installments	20	
Installments value at inception	$80.000	thousands
Toll revenues in the first year	$100.000	thousands
Working capital = Beginning Equity	$0	thousands
Initial Intangible = Beginning Liability	$996.977	(Present value)
No other revenues or costs		
Indexation of revenues and concession fees in the beginning of each new year		
Distribution of dividends	0%	of the profit

Let's also assume the following price variation (real figures) as those in effect in Brazil (except as of 2012, when estimated):

Inflation			
Year	**Index**	**Annual %**	
Dec-97	145,660		
Dec-98	148,291	1,81%	
Dec-99	178,099	20,10%	
Dec-00	195,827	9,95%	
Dec-01	216,163	10,38%	
Dec-02	270,867	25,31%	
Dec-03	294,455	8,71%	
Dec-04	331,005	12,41%	real
Dec-05	335,006	1,21%	
Dec-06	347,842	3,83%	
Dec-07	374,815	7,75%	
Dec-08	411,575	9,81%	
Dec-09	404,499	-1,72%	
Dec-10	450,288	11,32%	
Dec-11	473,253	5,10%	
Dec-12	502,083	5,00%	
Dec-13	527,190	5,00%	
Dec-14	553,550	5,00%	estimated
Dec-15	581,230	5,00%	
Dec-16	610,290	5,00%	

4.2. Effects on income and balance sheet in the executory contract

To the case of statements with concession contracts understood as **executory**, we would have balance sheets of the first two years and respective income statement, as follows:

Balance sheet	1998	1999
Cash	20.000	40.361
Shareholders' equity = Accumulated Profits	20.000	40.361
CASH X EQUITY	-	-

Income statement		
Toll revenues	100.000	101.806
Concession fee expenses	(80.000)	(81.445)
Net income (loss)	20.000	20.361

Cash flow		
Initial balance	-	20.000
Toll revenues	100.000	101.806
Concession fee payment	(80.000)	(81.445)
FINAL CASH FLOW BALANCE	20.000	40.361

Chart 8

The income statement shows, in the second year, revenues and expenses increasing exactly 1.81% of the price index, and also the profit. And the exact amount of profit is added to cash which, because it is not being distributed, accumulates, as much as the accumulated profit which compose the equity.

It was evidently placed in the balance sheet, on the line CASH X EQUITY, that cash is exactly the same as equity, there is no difference between them, both in each period and, obviously, accumulated.

4.3. Effects on income and balance sheet on capitalized contract with the monetary variation of liability in only one time directly on income (*one hit income statement impact*)

Now, in the case of **capitalization of intangible asset and liabilities of the concession fees installments**, the statements are completely different:

Balance Sheet	1.998	1.999
Cash	20.000	40.361
Intangible - cost	996.977	996.977
Intangible - accumulated amortization	(49.849)	(99.698)
Total Assets	967.128	937.640
Liability - concession fee	966.826	952.059
Shareholders' equity = Accumulated Profits	302	(14.418)
Liabilitiy + Equity	967.128	937.640
CASH X EQUITY	19.698	54.779

Chart 9

The cash amount does not change in relation to the balance sheet in the executory contract, since the cash inflow and outflow do not alter in both accounting models.

The intangible asset has its original cost discounted at present value of $ 996.997, kept nominally over time. And the amortization accumulates nominally as well.

Liability is increased by interest of 5% per year, by the price index and is decreased by amortizations, which are increasing. **The effects of these 2 increases are very large in the income. Consequently, equity, in the second year, is negative**, as seen in the balance sheet above.

And the CASH X EQUITY line shows the discrepancy: profit is $ 302 in the first year, but cash flow from operations is $ 20.000, which causes a misstatement of $ 19.698; in the second year, this misstatement increases to $ 54.779 accumulated!

Let's see the income of the first two years:

Income statement		
Toll revenue	100.000	101.806
Concession fee - inflation adjustments	-	(17.463)
Intangible - amortization	(49.849)	(49.849)
Interest - Reversal of liabilities PV	(49.849)	(49.214)
Net income (loss)	302	(14.720)

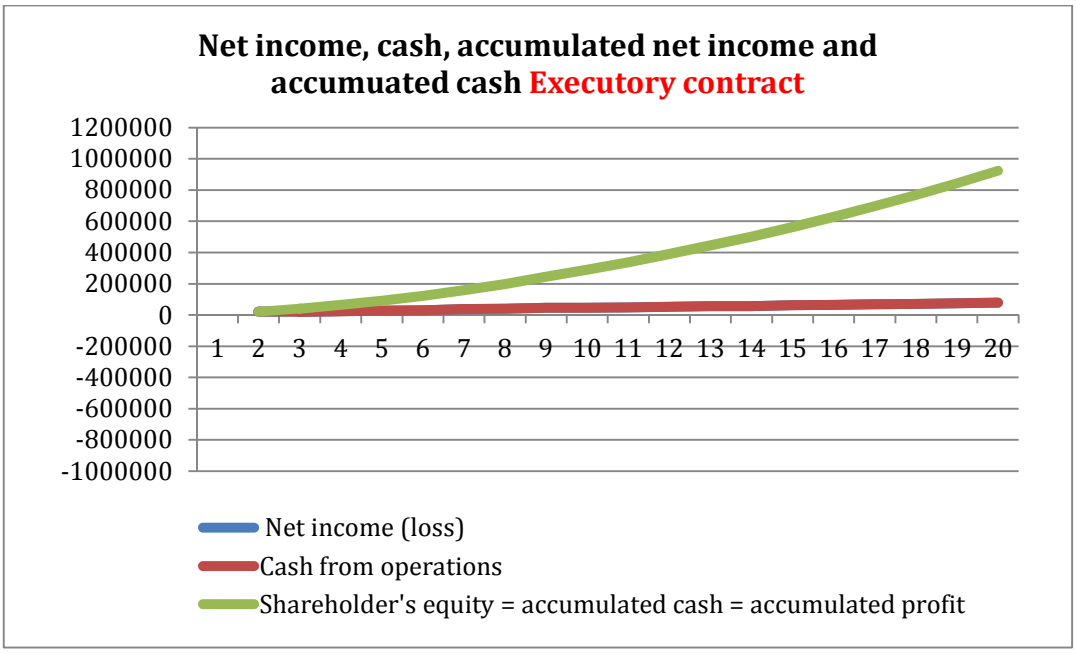
Chart 10

In the first year, there is still no effect of inflation, but income is insignificant, only $ 302, due to the allocation of financial expenses as shown in item 2. But the **second year income**, which was small, but positive in the item 2 discussion, **is now negative ($ 14.720)**, changing the accumulated of $ 302 to accumulated loss of ($ 14.418).

The third year income will be even more negative (-) $ 176.124.

The unbalancing is even more dramatic with the presentation, year after year, of an increasing cash and decreasing equity!

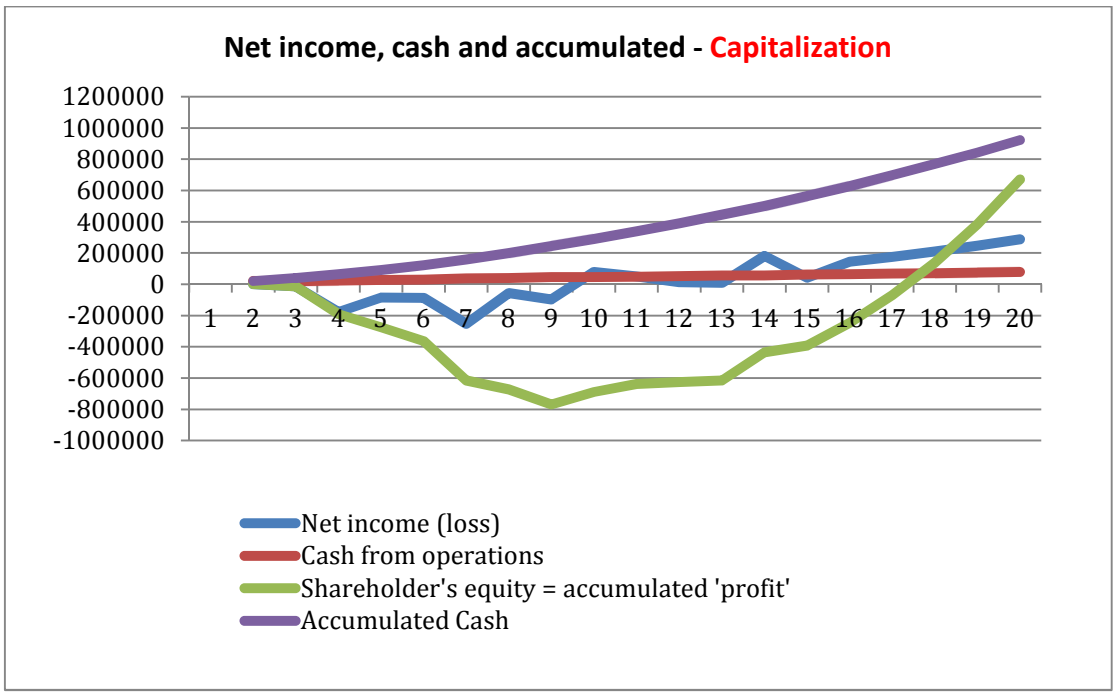
Let's see in the executory contract the cash behavior, of profit and accumulated profit:



Graph 4

The lines of net income and cash for each period are overlapped, because they are the same, year after year, because there is no distribution of dividends; and the shareholder's equity (accumulated profit, in this case) and accumulated cash also show overlapping, in a gradual and uniform evolution over the concession.

Let's see the graph below:



Graph 5

a) The equity and accumulated cash lines go to totally different ways, but end up similarly, and at the same point as in the executory contract model.

b) The operating cash and accumulated cash are the same in both charts.

c) The net profit lines have nothing to do with each other in both models.

d) In the second model, the net worth line is, most of the time, negative in the first years, compensated with elevated profit in the last years.

It is clear the set of misstatements that the updating of the concession fees causes in the model in which intangible asset and debt are capitalized. But this will be even clearer ahead.

5. CONCESSION FEES PAID WITH FIXED INSTALLMENTS, BUT ADJUSTABLE – *ALTERNATIVE ACCOUNTING TREATMENT*

5.1. Introduction

An alternative accounting treatment is to consider the following reasoning: when we update the whole liability, for instance, at the beginning of each year, it actually exists, within it, **the updating of the due installment**. Due installments are those referring to the granted future exploration rights. Therefore, the alternative accounting treatment means to consider that **the updating of each future liability installment means the updating of each concession right also to the future exploration.**

The immediate recognition of liability updating as expense is a significant mismatch, since updating is done, in many contracts, as compulsory updating of future rates (tariffs); the financial realization of these increased rates will take place in the future. Consequently, if expenses are fully recognized on income, that expenses are recognized first and, only in the future, revenues are recognized, in a totally conservative view, in its worse sense. **And we have to remember that this conservative and distorting view was eliminated from IASB's Framework.**

Remembering: in this type of contract, when applied to road concessions in Brazil, for instance, the updating of future concession fees installments, is also compulsorily applied to the updating of future tolls of service exploration. In the worst case scenario, this updating, if not compulsory by contract, occurs due to market price adjustments due to inflation. The last alternative would be to consider this recoverability at least as **likely** (when not certain). **If the intangible asset is not recovered and if cash does not materialize in the future, only then impairment would be applicable.** But this loss is of a different nature, and it would be an extremely important information to all users in due moment.

If this alternative treatment were applied, a practical way would be to **add the liability updating to assets** (and not fully and directly on income), **to be amortized by the remaining useful life of the exploration right**.

Therefore, it is as if there were, in fact, several rights piled up on asset and many obligations also piled up on liabilities. We could name it, at least for the sake of this study, A NEW LAYER OF INTANGIBLE ASSET.

5.2. Effects on balance sheet and income of the new layer of intangible asset criteria

When we apply this technique to the same elements discussed in the example of the previous item, the first two years of the concession contract, not showing cash flow, which is always the same, would be:

Balance sheet	1.998	1.999
Cash	20.000	40.361
Intangible - cost + capitalized inflation adjustments	996.977	1.014.440
Intangible - accumulated amortization	(49.849)	(100.617)
Total Assets	967.128	954.185
Liability - concession fee	966.826	952.059
Shareholders' equity = Accumulated Profits	302	2.126
Liabilitiy + Equity	967.128	954.185
CASH X EQUITY	19.698	38.235

Income statement		
Toll revenue	100.000	101.806
Intangible - amortization	(49.849)	(50.768)
Interest - Reversal of liabilities PV	(49.849)	(49.214)
Net income (loss)	302	1.824

Chart 11

To the intangible cost on year 2 is added the updating made on liability at the beginning of the second year, partially amortized on year 2. The amortizations are always based on the initial book value divided by the rest of the period.

Liabilities do not change relating to chart 9, traditional version.

On income, the intangible amortization is automatically increasing. And the financial charges are not so devastating as of the liability updating. They always correspond to 5% of interest on updated initial value.

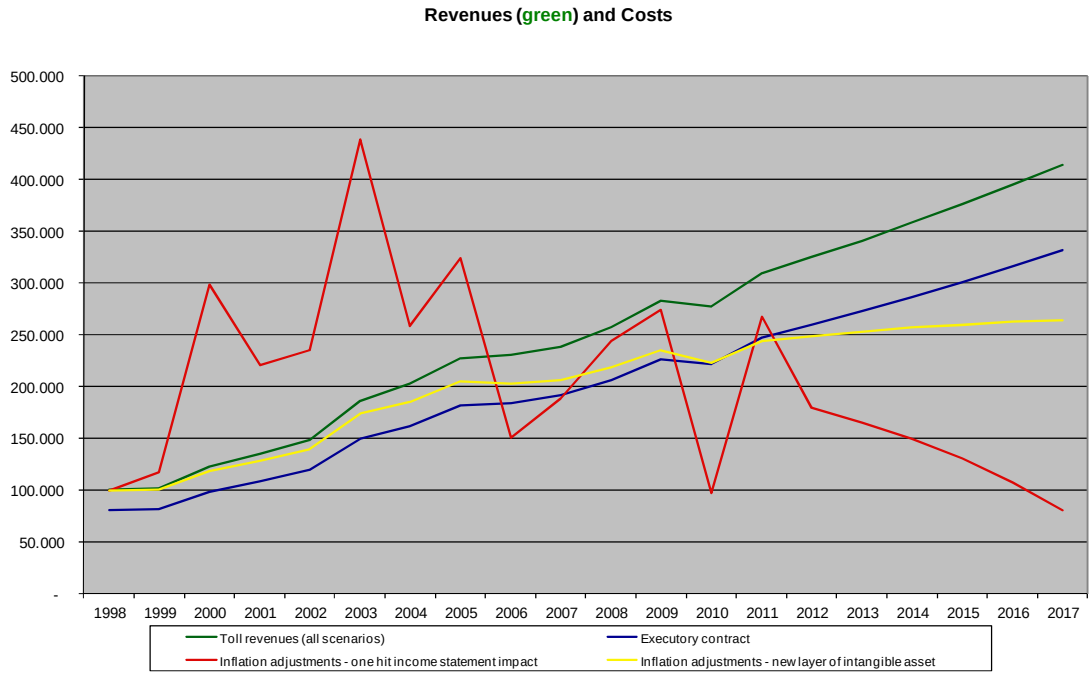
Instead of the pointless loss shown in the traditional form on chart 10, second year is now positive and increasing. Surely, this model keeps the mismatch feature (effects much lower, in this case) due to the existence of financial charges over the liabilities, as also discussed on chart 4. For that matter, the income of the first period is exactly the same and a bit different in the second, but not so far from the adoption hypothesis of the executory contract model.

6. COMPARATIVE ANALYSIS OF THE 3 METHODS

For a broader view, let's see many graphs and analyses of dispersion, with the R^2 calculations obtained from the regressions in many items.

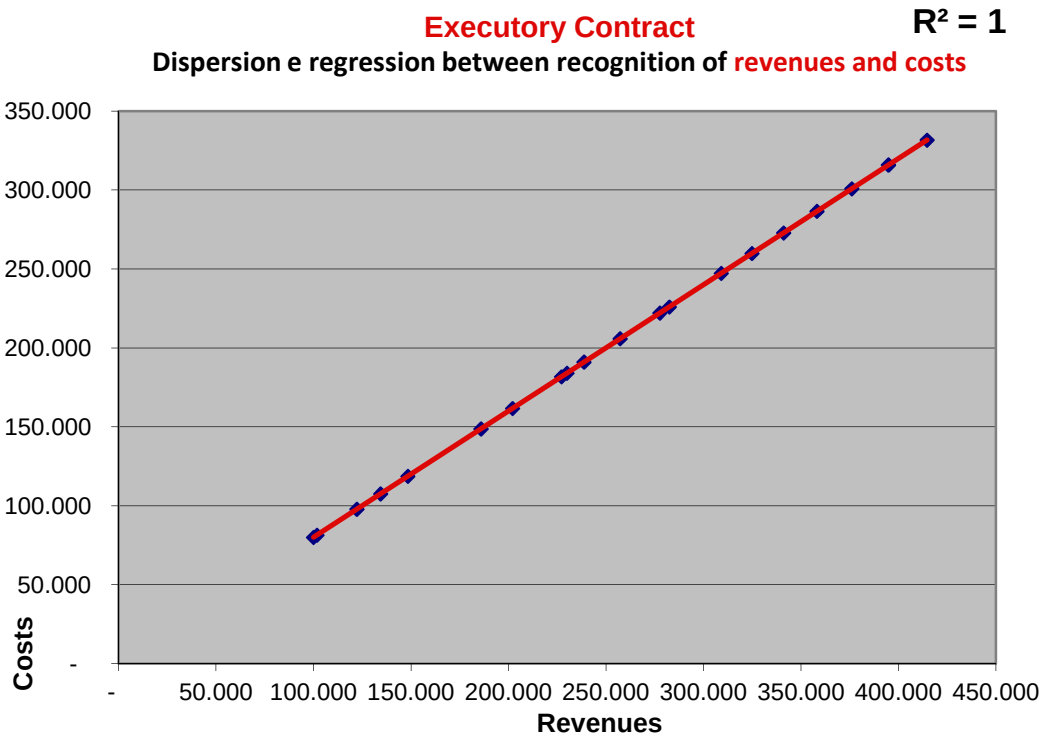
6.1. Comparison between Revenue and Costs

When we compare, for instance, the revenues and costs of each of the three methods, we have the following (keep in mind that there is a full pairing of the revenue cash inflows and the installments payments, which are, from the financial viewpoint, the only flows – since dividends are omitted). Keep in mind also that revenues are always the same.



Graph 6

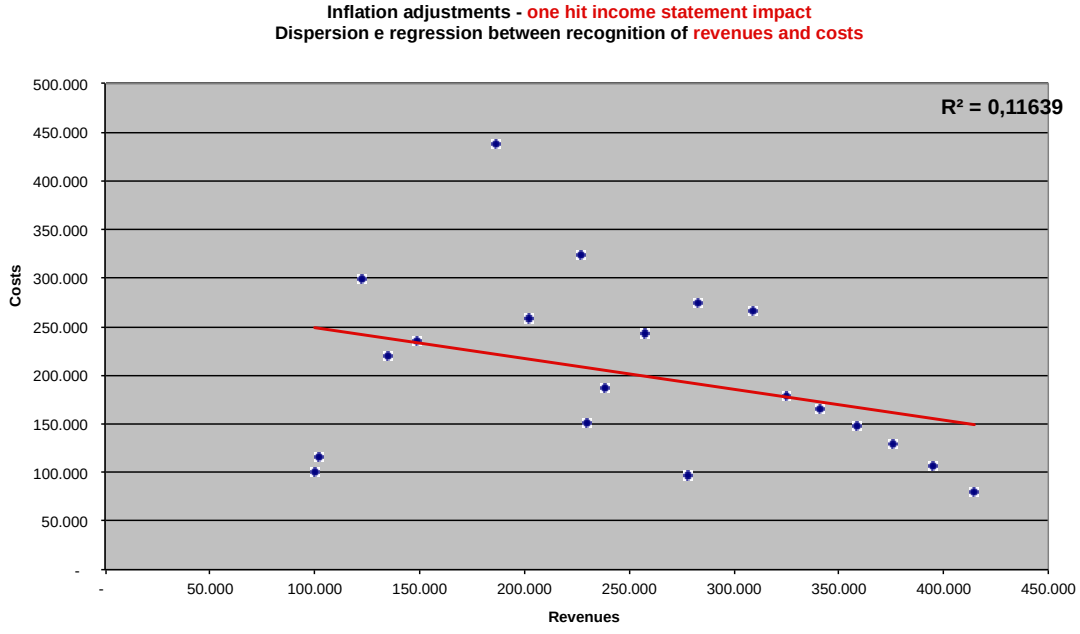
Statistically analyzing, we have:



Graph 7

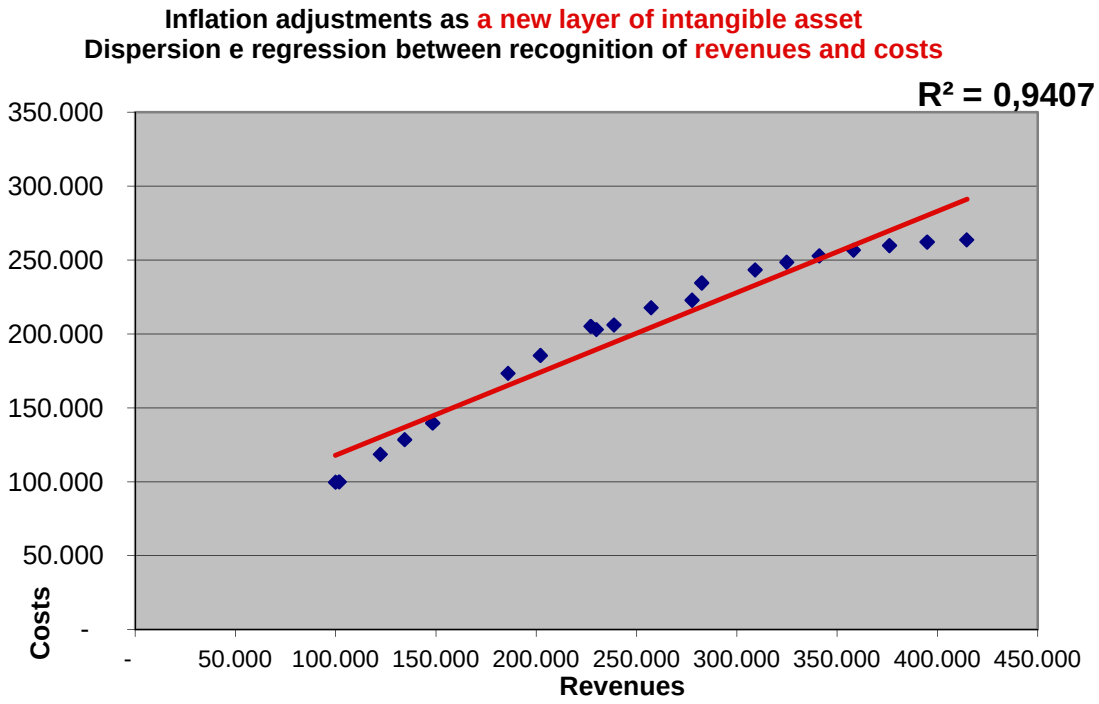
It is clear, in the executory contract model, the full correlation, even when we know that there is inflation!

In the case of comparison between revenues and costs in the one hit income statement impact model, **the correlation is almost void, below 12%, which proves the misstatement level**. We can see this on the graph and R^2.



Graph 8

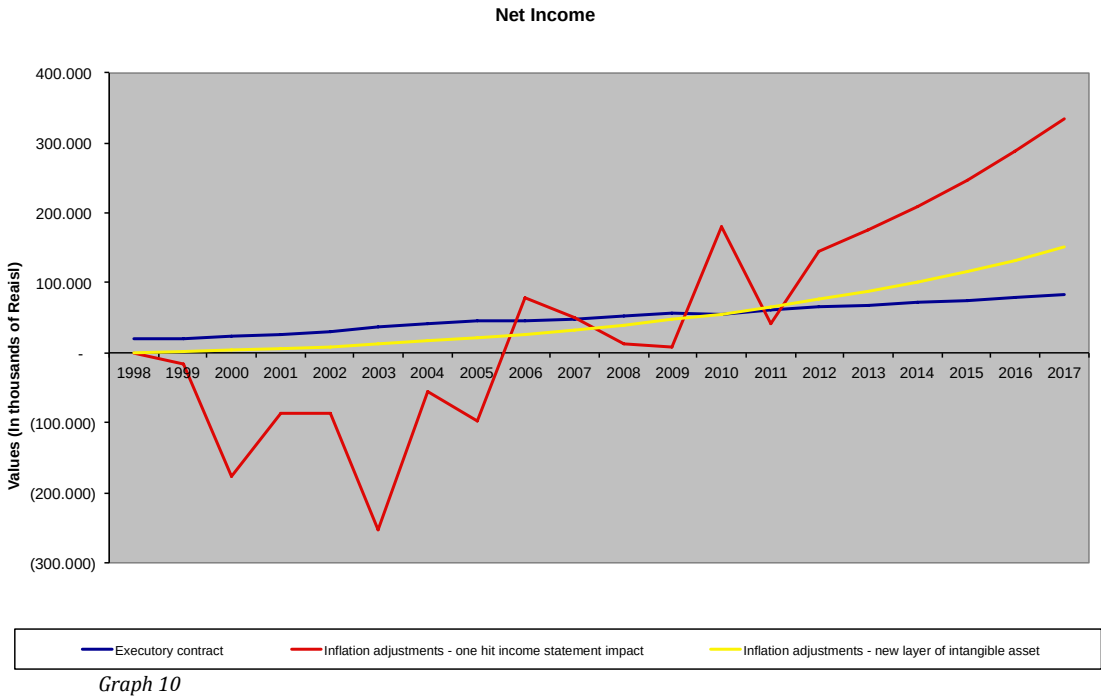
However, in the proposed **alternative method (new layer)**, the correlation is, again, totally significant, 94%:



Graph 9

6.2. Comparison between Net Profits

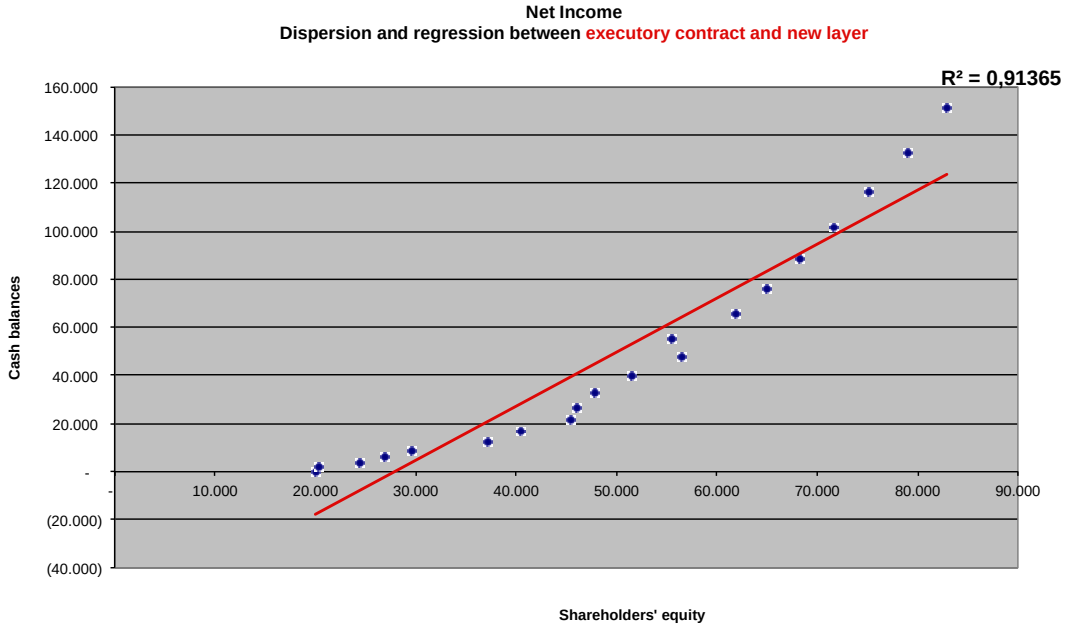
The lines of net income, over the time, according to the three criteria, show, graphically, a much greater correlation between profit by the executory contract and the new layer. Please, see explanatory graph:



Graph 10

Notice that there is an enormous correlation between the new layer of intangible asset profit with the one shown at the executory contract, differently from the one hit income statement impact criteria.

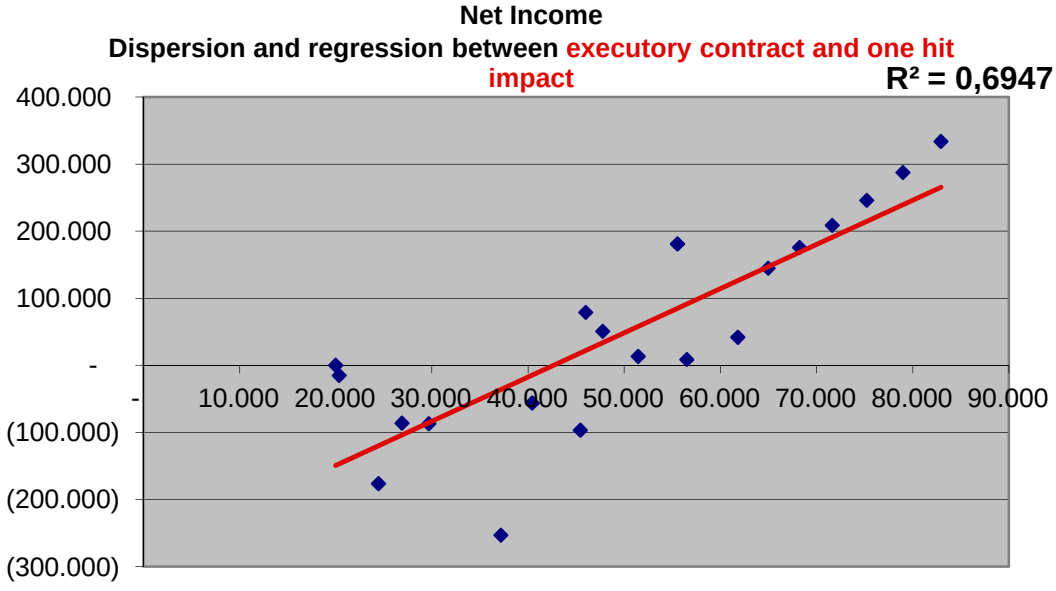
This correlation can be seen statistically when the profit of the executory contract and the one from the new layer are compared:



Graph 11

High correlation, 91%

The comparison between the profit of the executory contract and the profit of the one hit, is as follows:

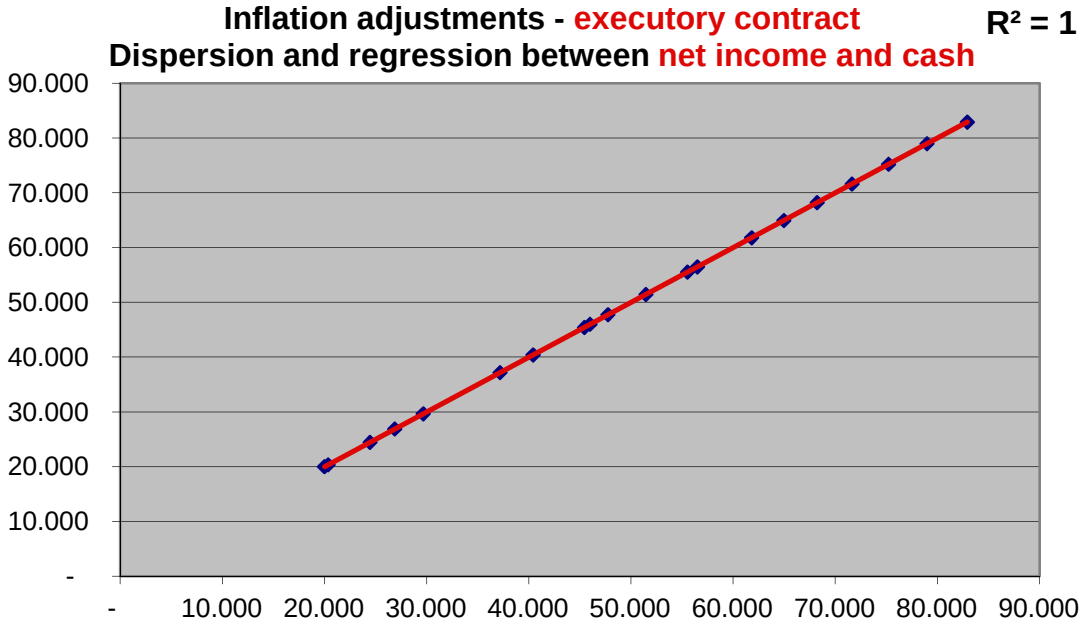


Graph 12

That is, the correlation between the executory contract and the one hit impact is much lower.

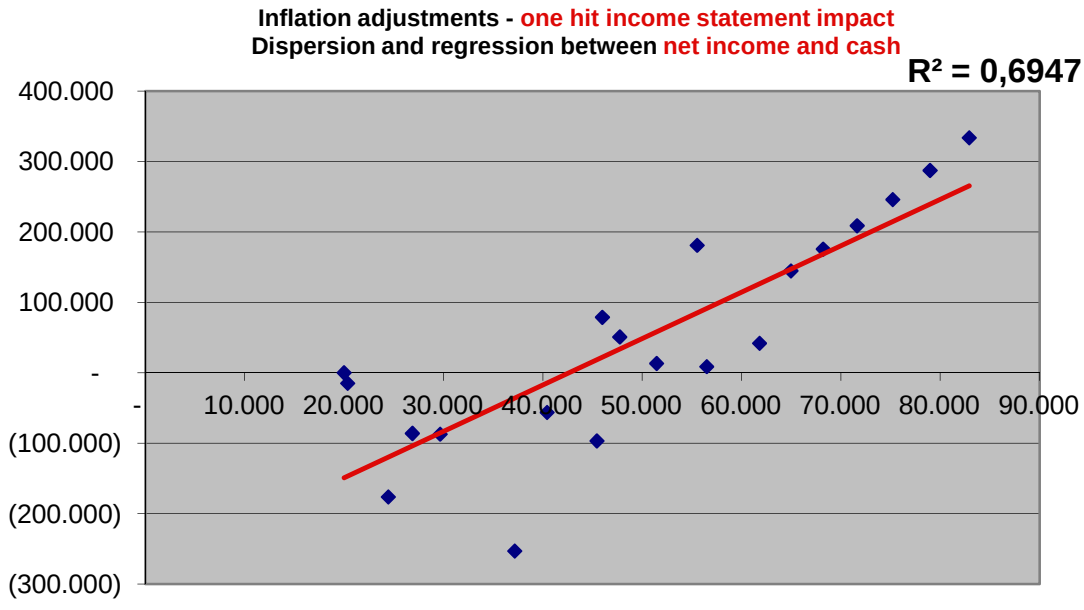
6.3. Comparison between Net Profits and Cash Generation of Operation

When we compare the lines of profit and cash generation from operations, we have already stated the full correlation:



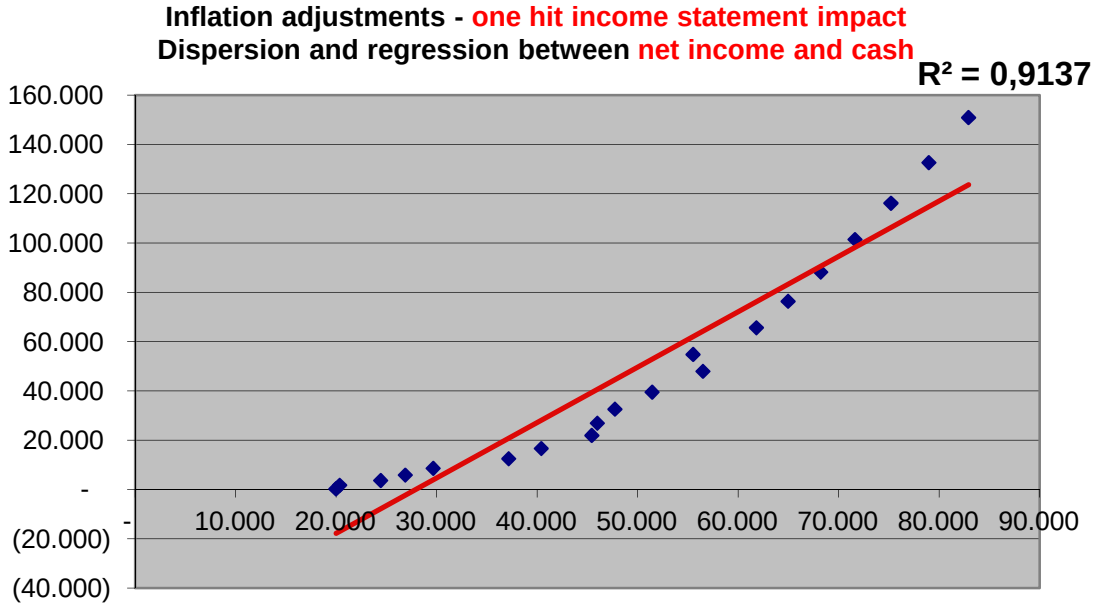
Graph 13

When we compare profit and cash by the one hit:



Graph 14

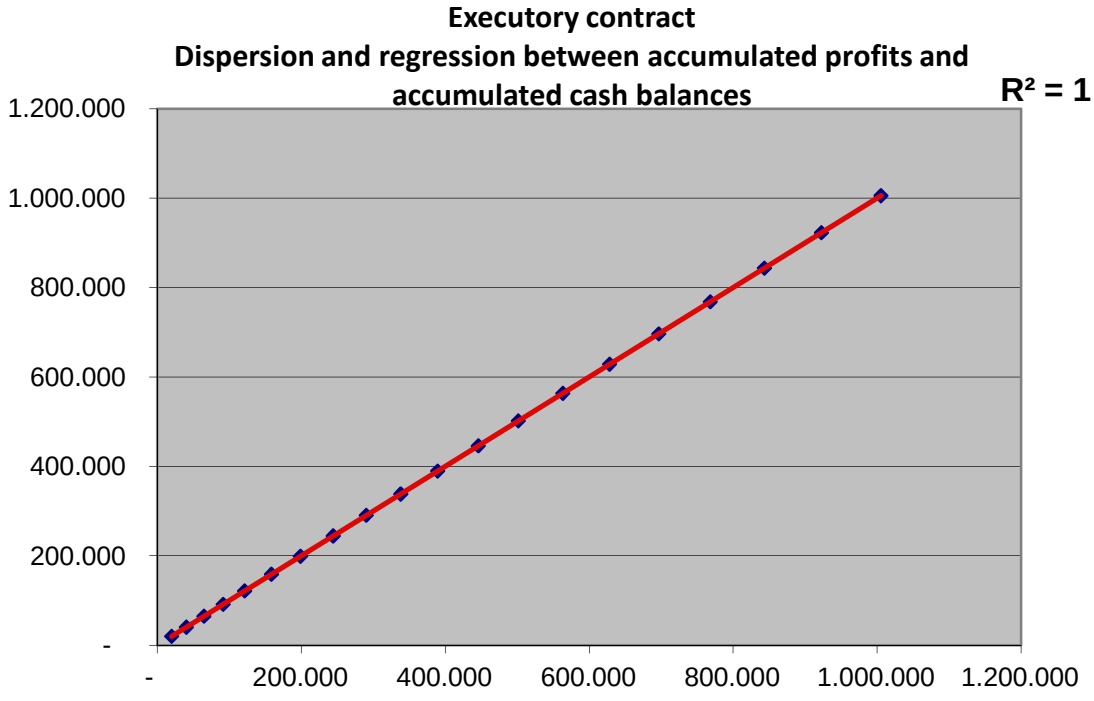
The comparison between profit and cash from operations on the new layer, the correlation is high again:



Graph 15

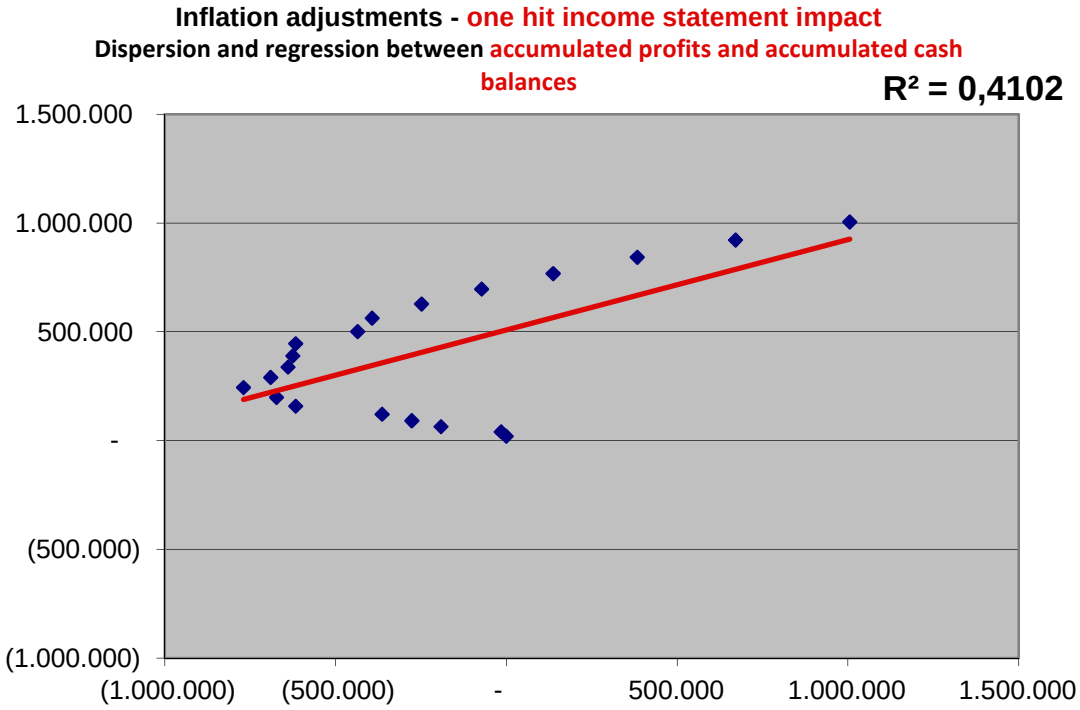
6.4. Comparison between Accumulated Profits and Cash

The analysis of the differences of accumulated profit and accumulated cash, statistically, do not exist, obviously, in the executory contract:



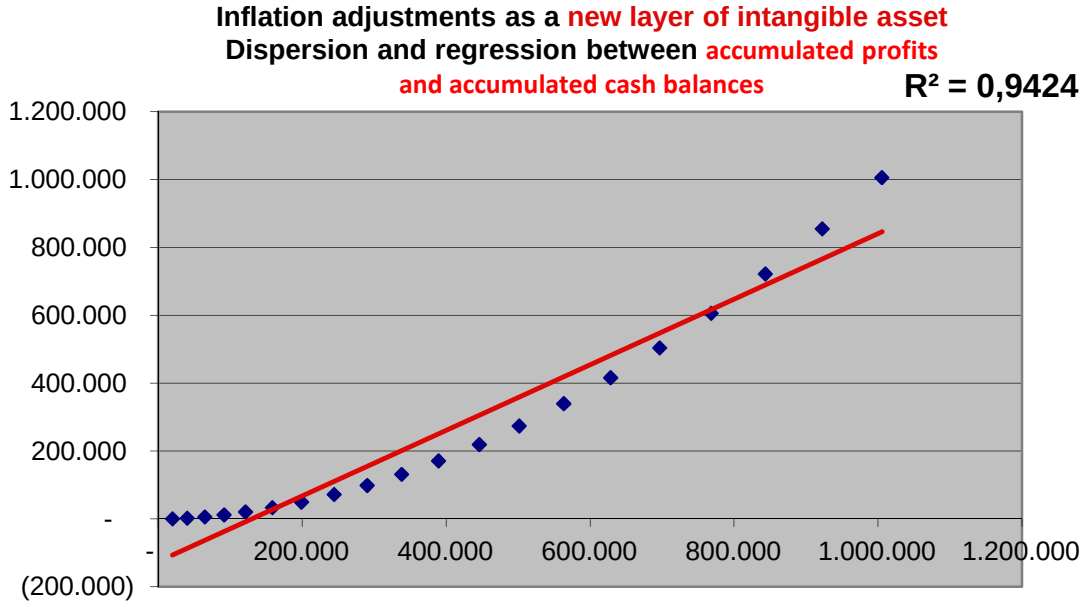
Graph 16

The correlation is very low in the one hit:



Graph 17

However, in the new layer, a very good correlation is shown:



Graph 18

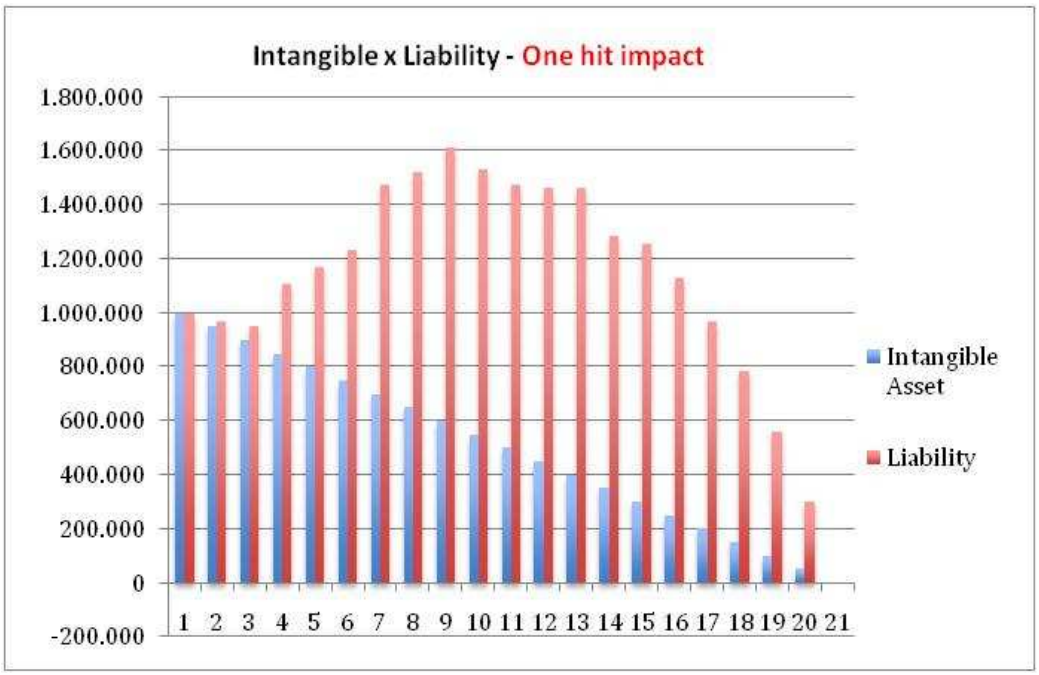
That is, all analyses show a much more suitable situation when presented based on the new layer method, comparatively to the one hit impact method. By the way, this method is a disaster!

6.5. Mismatch between Intangible Asset and Debt

As mentioned at the beginning of this work, the mismatch between an asset and the liability it finances is natural. This mismatch is normal when the asset is amortized linearly, but the liability decreases exponentially due to the influence of interest. The payment of this debt, in constant installments, causes a lower debt amortization at first, with the greatest part of the installments being composed by interest; over time, the installment decreases and the debt amortization increases.

When there is debt indexation, the problem gets worse when there is no monetary updating of the asset; which keeps decreasing nominally and linearly (if amortized linearly), but the liability now suffers two impacts: increases by the index application and increases by the interest appropriation, and decreases by the amortization of debt. This causes a different effect from when there is no indexation: normally the debt, at first, increases, instead of start decreasing, since the updating is made over the total balance; the joint effect of indexation plus interest is higher than the amortization of debt. Only after a certain point, the debt starts decreasing.

For a graphic visualization, for the example in question we have the following behaviors of the net intangible asset and debt subject to indexation, on the one hit income statement impact method (keep in mind that, in the executory contract method, there is no intangible asset or debt):



Graph 19

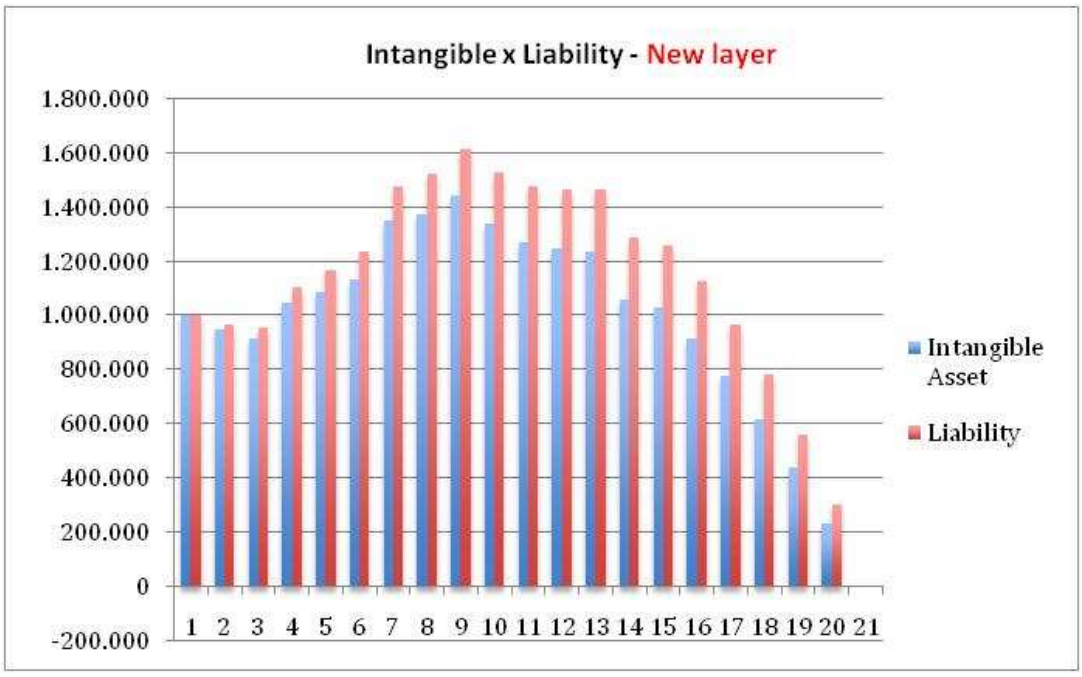
Notice that the behavior of the intangible asset is totally linear, given the constant quotas amortization. Debt is behaving as commented; in this case, remind that the price variation indexes used are those current up to 2011, in Brazil, which make the curve to change unsteadily.

Notice the great difference this causes in the financial statements when the debt amounts are very high comparatively to the equity. These mismatches lead to totally wrong conclusions as to the actual finance situation of the company, failing to meet the greatest objective of the financial statements.

Debts are, in each balance, totally updated, but not the assets. If assets were rights to receive rates revenue, they would be representing rights without any updating, causing inconceivable misstatements. **The financial situation of the exemplified entity is, in fact, absolutely calm and homogeneous over time** concerning not only the effective cash inflow and outflow in each period, **but also the expectation of future cash inflows and outflows. Therefore, the balances show something completely different**. Hence, the application of this model is illogical.

If the executory model is applied, no amount would be deforming the balance; if there were monetary adjustment for the asset as well, there would still be a deformation, due to the postponement of the debt write-off, which is normal to the financed asset.

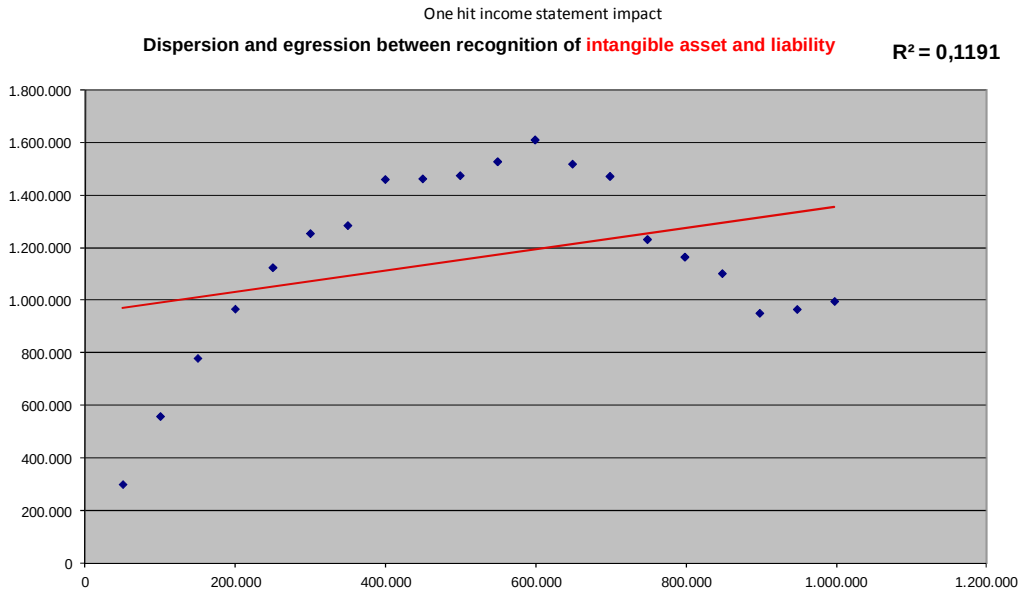
Hence, the understanding that, if the executory contract were not adopted, it is necessary, at least, the application of the model in which the liability indexation is recognized as asset. Please, notice what would happen in the example discussed, if the new layer of intangible asset method were applied:



Graph 20

We can see that the baneful effect of the intangible asset and liability mismatch is greatly reduced, showing now a great reduction in the unbalancing. This graphic representation is much closer of the effective reality of the entity.

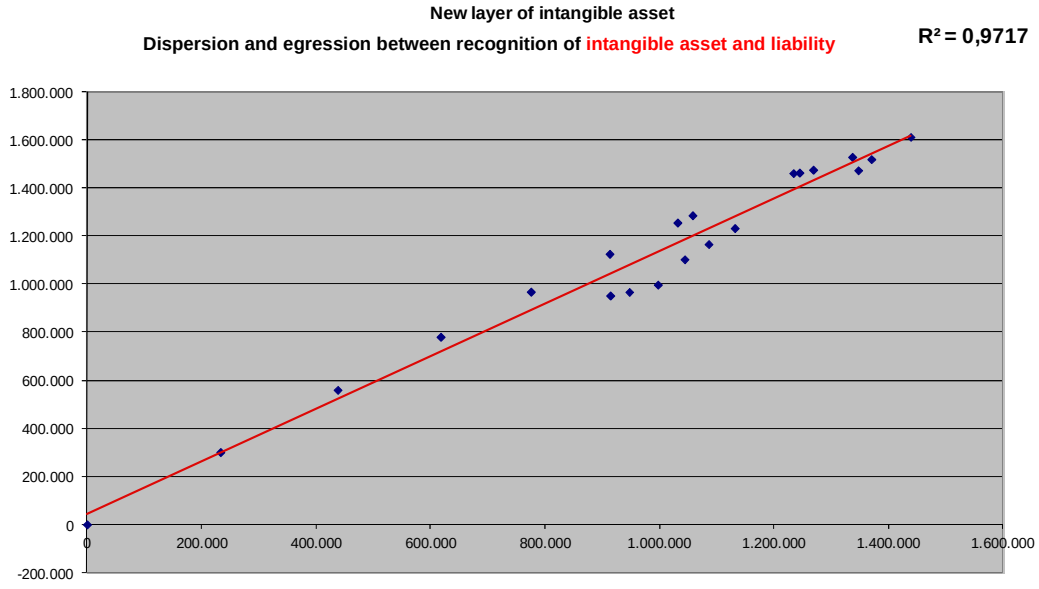
Statistically, the following correlations:



Graph 21

Correlation lower than 12%! Extremely low.

When intangible asset and liability values are correlated in the new layer method, the situation becomes extraordinary! 97% of correlation:



Graph 22

The difference is statistically absurd: the correlation is R^2 of 12% in the one hit income statement impact method and R^2 of 97% in the new layer of intangible asset method!!

6.6. Relation between Concession Contracts with Installments Paid in the Future with Leasing Contracts and with Financing of Long Term Assets

We acknowledge that there is a significant similarity between concession contracts where payments of concession rights are distributed in installments over the term of the contract with the leasing contracts, including operational leasing.

Since IASB is in the process of eventual changes in the standards of operational leasing contracts, it is meaningless to change now, or introduce now, the standards regarding concessions paid in installments. Both subjects should be treated jointly.

Even more so, the problems discussed here regarding liability indexation and how to account for the correspondent debit of this indexation are greatly leveraged in the case of concessions due to the highly significant proportion of the debt (if capitalized at first) relating to equity.

Therefore, this will also be a great problem to the case of long-term operational leases. Consequently, this subject should also be treated jointly.

Finally, in the case of long term contracts for the financing of property, plant and equipment, the same problem regarding indexation of the liability occurs. The misstatement event may not be so disastrous because, in this indebtedness, the relation between debt and equity is not so significant.

But all this indicates that the subject is worth a broader and deeper discussion.

7. CONCLUSIONS

7.1. Conclusions of the Comparison Between Executory Contract and Capitalization

The great discussion between the use of the executory contract and the capitalization of future installments lies in the clarification of whether these installments represent an effective acquisition of an accountable concession right. The meeting of all requirements for the asset recognition is a difficult task.

The measurement problems as of the capitalization of future installments in assets and in liabilities exist and are great when the future installments are variable (as to revenues, for example), when its dimensioning in a reliably way in certain situations becomes difficult.

The greatest difficulty, however, lies in the existence of contracts that demand future investments for the obtaining of the exploration rights. How to measure reliably these future disbursements to recognize as assets as of the inception of the contract? How to select appropriately, since the beginning of the contract, an adequate way to amortize it?

And when are contracts, for instance, composed by the three forms? Imagine a contract that is composed of a third with payments in installments over the contract, subject to price variation indexation; a third based in the services flow variation measured physically; and another third based in a new investment to be made at any moment in the future!

Either all forms are accounted for or none is, since there seems to be no logic in capitalizing only in the case of fixed installments. But there is a long way to go to find adequate and reliable models for all this measurement.

From the pros and cons analyzed at the beginning of this paper, we can verify that the capitalization model produces balances highly leveraged, with a highly elevated debt/equity relation which does not represent the real financial position of the company. Income now suffers the effects of the mismatch as of the appropriation of financial expenses deriving from the liability accounted for at present value. And these effects are even greater due to the exceptional liability value comparatively to the equity needed in these concessions.

This causes an accumulation of cash due to the impossibility of dividend distribution in the greatest part of the contracts term, due to the complete mismatch between generation of cash from operations and the recognition of income over time.

From the practical point of view and the entity's situation view to users, there seem to be great doubts as to the merit of using the capitalization method. In the executory contract method, this view seems simpler to be understood and the understanding of the financial position of the company and the relation between profit and cash is easier and faster.

7.2. Conclusions of the Comparison Between Capitalized Contract with Adjustable Installments by the One Hit Method and the New Layer Method

If considered mandatory the capitalization of future installments to be paid over the contract, in the case of adoption of price variation adjustments of those installments, as it is in some jurisdictions, other conclusions appear, as follows.

The method of recognition of liability updating directly against income statement (one hit impact) causes the most blatant misstatements, with great chances of recognition of losses at first and for a good part of the contract term, with negative equity for most of the time, in a complete lack of adherence with the need of reliable representation of the financial statements.

Actually, this problem would be solved by the adoption of the monetary adjustment of the financial statements in these situations (IAS 29). But it is practically impossible to the great majority of jurisdictions nowadays.

Hence, it is practically impossible to conciliate this method with the objectives of reliable representation, of proper illustration of performance and of strong support to the future cash flow prediction, the one hit impact method is just not useful to the capital providers. It can, at most, be of tax interest to some jurisdictions where there is a complete bond between external accounting and tax accounting.

Consequently, if capitalization of future installments during the contract is mandatory, with the creation of the intangible asset and the immediate recognition of the liability (criteria which, unfortunately, is much inferior in informative capacity than in the executory contract), we have to find another alternative. This other alternative would be the adoption of the method in which the liability adjustments would be added to the exploration right in the asset, updating the exploration rights related to future periods, not only the updating of future obligations.

The new layer method produces a much less misstated income than the ones produced by the one hit impact, although the mismatch flaws caused by the appropriated financial expenses *pro rata tempore* based on the exponential method are still there.

Finally, the similarity of the problems of the concession rights paid in installments over the contract term and the discussion of assets recognition of the right of use related to the operation leasing contracts are subjects that should be studied jointly. Still, problems with the indexation of liabilities occur not only in these concessions paid in installments and, also, not only in long term contracts of operational leases, but as well as in long term contracts which finance property, plant and equipment.

Considering all the above, we reach the conclusion that this subject needs a much deeper and broader discussion, and that many risks exist in any rushed deliberation.

It is the OPINION.

Eliseu Martins

Ernesto Rubens Gelbcke