THE GOVERNANCE SLACK MODEL: A CASH FLOW APPROACH TO SHAPE UP CORPORATE ACCOUNTABILITY AND GOOD PRACTICES*

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Abstract

This paper introduces a cash flow model to budget and monitor distinctive matters usually arising in corporate governance. By enlarging the standard cash flow model widely used in Finance, and avoiding some of its downsides, it sets up a composite of cash flows called governance slack, which amounts to a comprehensive budget for the most usual governance issues. This slack has a dual structure whose dynamics keeps track of uses and sources of its components, and could become functional in preventing likely agency problems and improving not only disclosure but accountability as well.

Keywords: corporate governance, cash flow model, governance slack, cash flows budget

Introduction

Cash flows arising from operations, investing and financing decision-making have been an ongoing matter of concern to financial economists for the last decades who firstly elicited tools and methodologies from Accountancy, mainly the well-known statement of uses and sources of cash flows. Later, they brought about the Standard Cash Flow Model (SCFM), to the extent that recent editions of well known textbooks in corporate finance have devoted almost a whole chapter to expand on this subject; for instance, Ross (1999) and Damodaran (1996).

By far, such a standard framework for appraising cash flows improved upon accountancy conventions by giving due care to financially relevant cash flows. Its main advantages, from the point of view of valuation, can be briefed this way:

a) By using a common methodology, future expected cash flows can be assessed regardless of whether they come from stocks, bonds, portfolios or investment projects. (Elton-Gruber, 1997)
b) The model allows for a symmetrical treatment to cash flows produced by assets on the one side, and cash flows forwarded to stockholders and bondholders, on the other side. That is

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to say, investing and financing decisions may be pursued at the same time, while keeping track of their innermost relationships. (Benninga-Sarig, 1999)

In spite of exhibiting such strengths, certain downsides can be found in the structural design of the SCFM which prevents it from being broadly used when handling a variety of topics arising from what Zingales has lately called the new foundations for finance: value enhancement, capital structure and corporate governance (Zingales, 2000).

This paper introduces an alternative cash flow approach to deal with corporate governance issues, without losing the undisputed merits of the SCFM. The roadmap will be the following:

In section 1, we bring into view the standard cash flow model, highlighting its underlying assumptions and shortcomings while section 2 will expand on this paper's main contribution, the governance slack model (GSM). Furthermore, it also gives account of the GSM dynamics. It will be for section 3 to enlarge on the inner framework of the governance slack that provides a budget tool and an accountancy methodology when dealing with governance issues.

Remark:

- The model has already been employed to address agency problems, managers' accountability and the Enron's case. (Apreda, 1999, 2002 a, 2002b)

1. The standard cash flow model

The Standard Cash Flow Model (SCFM) states that, for any period [t – 1;t], incremental cash flows furnished by assets are to be distributed between stockholders and bondholders:

$$\Delta CF_t\,(assets) = \Delta CF_t\,(bondholders) + \Delta CF_t\,(stockholders) \qquad (1)$$

Notation: $\Delta CF_t\,(assets)$ stands for "change in cash flows from assets throughout the period [t – 1 ; t]". Sometimes, we are going to drop the incremental symbol, either when the context allows for it, or when some variable under study amounts to stock or accrual features to be likely dated at the end of the period.

Cash flows to bondholders are usually split down into the following components:

$$\Delta CF_t\,(bondholders) = interest_t + debt\ repayment_t + debt\ repurchase_t - \\ - new\ debt\ issues_t \qquad (2)$$

and cash flows to be passed onto stockholders exhibit this structure:

$$\Delta CF_t\,(stockholders) = dividends_t + stock\ repurchase_t - new\ stock\ issues_t \qquad (3)$$

From the assets side, the breaking down of its main components leads to:

$$\Delta CF_t\,(assets) = \Delta\, CF_t\,(operations) - \Delta\, CF_t\,(working\ capital) - \Delta\, CF_t\,(fixed\ assets) \qquad (4)$$

while cash flows from operations are defined as

$$\Delta\, CF_t\,(operations) = Ebit_t - taxes_t + depreciation_t \qquad (5)$$

where Ebit stands here for "earnings before interest and taxes".

Remarks:

- As *depreciation* $_t$ is not a cash outflow, after taking advantage of the tax deduction it must be added to assess the cash flows from operations. The same criterion holds for any likely intangible assets amortization.
- If there were preferred shares, then (1) would be read as

$$\Delta CF_t\,(assets) = \Delta CF_t\,(bondholders) + \Delta CF_t\,(ordinary\ stockholders) + \\ + \Delta CF_t\,(\ preferred\ stockholders) \qquad (6)$$

- A nearly alike procedure holds for any outstanding lease, convertible bond, or preferred convertible stock.

1.1. Underlying assumptions and shortcomings in the standard cash flow model

The SCFM lies on two basic assumptions:

First, we see from (1) and (4) that all cash flows brought about by assets, that is to say, operative cash flows from operations net of provisions for working capital and fixed assets, have to be sent forth to the main stakeholders, namely the owners of stock and bonds issued by the firm.

Second, relations (1) to (3) show that any excess from assets should be committed either to dividends or contractual interest and principal payments from outstanding bonds. Whenever extra cash flows remained idle, they should be applied to stock or bond repurchases. If something missed, new issues would be available to fill the gap.

Nevertheless, when we attempt to use the SCFM we face up a number of issues for which there is no satisfactory answer within the setting the standard model provides. For example:

a) As *depreciation* $_t$ comes as a component of cash flows from operations (5), it should be distributed to stockholders and bondholders. Against this point of view, sinking funds for depreciation will be advocated in section 3.1. (A similar statement would hold for *amortization* $_t$)
b) Value creation is returned to lenders and owners as soon as produced, and nothing is apparently left to build up value enhancement. We have to bear in mind that cash flows to fixed assets spending refers to maintenance, and occasional purchases or sales regarding assets in place, not growth opportunities. If managers were allowed to allocate funds to growth opportunities instead of assets of place, then ongoing free cash-flow issues could foster agency problems. (Jensen, 1986; Damodaran, 1999). We will dig deeply on this subject in section 3.2.
c) The model disregards the fact that full cash balances are not always needed as working capital provisions. By the same token, marketable securities do not mean outflows as long as they are kept through the holding period. On the other hand, as far as the marketable assets portfolio includes financial assets to be held for longer than a year, it does not seem suitable to regard them as current assets; in the SCFM they are not even regarded as significant within the fixed assets incremental cash flows. Both items, cash not-for-operations and marketable securities should be bundled together, as it will be done in section 1.2.
d) Dividends are residual cash flows, and both interest and principal repayment in bonds contractual cash flows. Therefore, it does not seem sound to cluster them with repurchases and new issues, at least when dealing with corporate governance or valuation matters. Whereas residual and contractual cash flows are the stakeholders' concern, repurchases

and new issues fall within the scope of insider strategic decision-making. Section 2 and 3 will provide more background on this subject.

e) The standard model allocates interest payments from short-term loans to the Income Statement before the Ebit balance is figured out. This is not without merit, because in that way bond interest payments can be singled out and kept on the bondholders side. But the standard model does not take into account how to handle long-term commitments arising from bank loans, leasing and mortgages, unless we might assimilate these items to long synthetic bonds. In doing so, we can avoid the blurring issues that arise in corporate governance, mainly in the countries that follow the common law tradition against those that follow the civil law tradition, as surveyed by La Porta et al. (2000). [More on this, in sections 2 and 3]

f) The right side of (1) prevents valuable information about corporate governance from being known. For instance, it does not pay any heed to the top executives´ pay-package. It is for the model we advance in section 2 to make the corporate governance structure explicit.

1.2. The model on the uses and sources of cash flows

After having brought into surface the main drawbacks in the SCFM, it is apparent that the standard approach should be enlarged to fit corporate finance and governance purposes.

The SCFM derives from the Uses and Sources of Cash Flows Model (USCFM) that is widely used in Accountancy albeit with evolving varieties intended to meet regulatory updates (a full derivation of the USCFM in Apreda 2002a).

Our starting point will be the main outcome that the USCFM puts forward: at the end of period [t –1 ; t] it holds that

$$\Delta CF_t\,(assets) = \Delta CF_t\,(bondholders) + \Delta CF_t\,(stockholders) + \Delta CF_t\,(cash\ assets) \quad (7)$$

It will be worthy of interest to contrast (1) against (7):

a) As we can see, the standard model (1) neglects changes in cash flows that could be explained from the cash assets.

b) In fact, (1) hides cash assets within the label of incremental working capital cash flows as they are depicted in (4). On this account, remark c) in the foregoing section seems relevant.

c) Furthermore, the standard cash-flow model stands as a particular, and very restrictive case of the general cash-flow model as depicted in (7).

To underline the importance of cash assets, it will be shown where they come from and how we can take them apart from the left side of (1).

The following equation exhibits the main current assets components:

$$\begin{aligned}\Delta CF_t\,(current\ assets) = {} & \Delta_t\,(cash) + \Delta_t\,(financial\ short\text{-}term\ investments) + \\ & + \Delta_t\,(inventories) + \Delta_t\,(accounts\ receivable) + \\ & + \Delta_t\,(other\ current\ items) \end{aligned} \quad (8)$$

We break down the expected $\Delta_t\,(cash)$ into two components:

- cash required for the daily running of a business, $\Delta_t\,(cash\ for\ operations)$, which should be included when we assess working capital provisions.
- cash non-required for normal operations in the period, $\Delta_t\,(cash\ not\text{-}for\text{-}operations)$, which actually perform as a stock of excess liquidity.

Furthermore, $\Delta_t\,(financial\ short\text{-}term\ investments)$ does not need to become outflows in the period to the extent of bringing this item to depletion. On the contrary, this is the place

where many companies ought to set up and manage financial assets portfolios, which will be of the foremost importance in the governance slack model dual structure to be developed in section 3.

As from now, we will call *"cash assets"* to

$$\Delta_t \text{(cash assets)} = \Delta_t \text{(cash not-for-operations)} + \\ + \Delta_t \text{(financial short-term investments)} \quad (9)$$

Remarks:

a) Damodaran (1997) and Benninga-Sarig (1999) were among the first that pointed out the need of taking cash assets away from working capital provisions.
b) The short-term investment portfolio consists of stocks and bonds not issued by the firm, government bonds, term-deposits at banks, derivatives assets, investment in mutual funds and promissory notes. This portfolio is usually rolled over at the end of the period.

On the other hand, non-cash assets consist of changes in inventories, accounts receivable and other current assets. In this way, current assets may be translated as

$$\Delta_t \text{(current assets)} = \Delta_t \text{(cash assets)} + \Delta_t \text{(cash for operations)} + \\ + \Delta_t \text{(non-cash assets)} \quad (10)$$

and this sets apart the actual amount of current assets that should be provisioned in (4):

$$\Delta CF_t \text{(net current assets)} = \Delta_t \text{(cash for operations)} + \Delta_t \text{(non-cash assets)} \quad (11)$$

That is to say,

$$\Delta CF_t \text{(net current assets)} = \Delta_t \text{(current assets)} - \Delta_t \text{(cash assets)} \quad (12)$$

As from now, net working capital will be understood as net current assets minus current liabilities.

$$\Delta CF_t \text{(net working capital)} = \Delta CF_t \text{(net current assets)} - \\ - \Delta CF_t \text{(current liabilities)} \quad (13)$$

Unless we assumed cash assets amount to zero, changes in working capital should be assessed by means of relation (13) and not (4). Otherwise, we would be mixing up actual cash flows with items that do not convey outflows by themselves.

2. The governance slack model (GSM)

In this section, a new approach to deal with corporate governance problems will be put forth following this order:

- In section 2.1, some points of departure from the SCFM will be highlighted. Besides, the pay-package cash flows are embedded into the outgoing cash flows, by the side of those addressed to bondholders and stockholders.
- Next, we set forth the notion of internal mutual fund that will be functional to this paper proposal.

- In 2.3, the Governance Slack Model is rendered and its basic tenets are fully discussed. At the assessment date, the slack is meaningful and comes in handy to budget the main issues in corporate governance.
- We take heed to the dual structure of the governance slack in the following section.
- It is for 2.5 to develop the underlying dynamics of the governance slack is briefed in the following sub-section.
- Last of all, the soft budget constraint and free cash flows are introduced so as to have a broader picture.

2.1 Points of departure from the SCFM

To begin with, we will keep under the label "cash flows to stockholders", ΔCF_t *(stockholders),* only the actual cash flows they are entitled to receive as residual rights

$$\Delta CF_t \text{ (stockholders)} = \text{dividends}_t \qquad (14)$$

whereas the remaining items exhibited in (3) will be allocated elsewhere later in this section. In fact they amount to net new stock:

$$\Delta CF_t \text{ (net new stock)} = \text{stock repurchase}_t - \text{new stock issues}_t \qquad (15)$$

The standard cash flow model bundles dividends and net new stock together, but this practice seems not functional, at least for two reasons:

- one thing is to send forth dividends to actual stockholders,
- but quite another one is to make decisions about repurchasing or to issue new stock. More on this in section 3.1.

b) By cash flows to bondholders we mean only the actual contractual cash flows they are entitled to:

$$\Delta CF_t \text{ (bondholders)} = \text{interest}_t + \text{debt repayment}_t \qquad (16)$$

whereas the remaining items exhibited in (2) will be allocated later in this section. In fact they amount to net new debt:

$$\Delta CF_t \text{ (net new debt)} = \text{debt repurchase}_t - \text{new debt issues}_t \qquad (17)$$

c) Furthermore, cash flows arising from assets (4) will be expressed as operative cash flows net of the pay-package for the top executives level, minus changes in net working capital (13) and changes in fixed assets, minus the pay-package.

That is to say:

$$\Delta CF_t \text{ (net assets)} = \Delta CF_t \text{ (net operative)} - \Delta CF_t \text{ (net working capital)} - \\ - \Delta CF_t \text{ (fixed assets)} - \Delta CF_t \text{ (pay-package)} \qquad (18)$$

2.2 The internal mutual fund

As it was said in section 1.1.c, the SCFM does not take into account Δ_t *(long-term investments),* although the underlying financial assets makes for an investment portfolio any company actually runs but whose cash flows are not necessarily outflows in the period. In other words, the model assumes that such item adds up to zero.

At this point, we collect both the cash assets and the financial assets kept as long-term investments in what we are going to call the "internal mutual fund" to be held by the company.

$$\Delta CF_t \text{ (internal mutual fund)} = \Delta_t \text{ (cash assets)} + \Delta_t \text{ (financial long-term investments)} \quad (19)$$

Usually, any company manages a portfolio of short-term financial assets to trade off risk and return along a holding period. But the internal mutual fund goes beyond that single-purpose portfolio, because we build it up with cash not-for-operations, short-term and long-term financial investments. Hence, it performs as a separation portfolio consisting of risk-free assets and risky assets as well.

2.3. Governance Slack Model

Bearing in mind what has been said in 2.2 and 2.3, we set up the Governance Slack model assuming that the horizon is [t; t + 1], the valuation moment takes place at date "t", and that the symbol E[.] stands for the expectations operator contingent upon the set Ω_t of available information at date "t". The model predicates that the following relationship is to hold outright:

$$E[\Delta CF_{t+1} \text{ (assets)}] + E[\text{new debt issues}_{t+1}] + E[\text{new stock issues}_{t+1}] = E[\Delta CF_{t+1} \text{ (bondholders)}] + E[\Delta CF_{t+1} \text{ (stockholders)}] + E[\Delta CF_{t+1} \text{ (pay-package)}] + E[\Delta CF_{t+1} \text{ (internal mutual fund)}] + E[\Delta CF_{t+1} \text{ (governance slack)}] \quad (20)$$

where $E[\Delta CF_{t+1} \text{ (governance slack)}]$ means:

$$E[\Delta CF_{t+1} \text{ (governance slack)}] = E[\Delta CF_{t+1} \text{ (sinking funds)}] + E[\Delta CF_{t+1} \text{ (growth opportunities)}] + E[\Delta CF_{t+1} \text{ (ownership and control)}] + E[\Delta CF_{t+1} \text{ (asymmetric information and agency problems)}] + E[\Delta CF_{t+1} \text{ (risk management)}] \quad (21)$$

For the time being, let us take stock about the meaning of (20) and (21):

- The right side in (20) provides with sources of funds, either from assets or cash inflows new issues of stocks and bonds might supply eventually (continues paper on Governance Slack by Rodolfo APREDA)
- The left side in (21) highlights how the uses of funds proceed towards the main stakeholders, the internal mutual fund, the executives´ pay-package, and a new composite of incremental cash flows we label

$$\Delta CF_{t+1} \text{ (governance slack)}$$

which comes defined by (21).

- Ex-post, it holds that

$$\Delta CF_{t+1} \text{ (governance slack)} = 0$$

because all the components within this complex of cash flows are to be distributed to their right place in the course of the period span.

- However, at the assesment date "t", we are budgeting (20) and (21) and that means that

$$E[\Delta CF_{t+1}\ (governance\ slack)] \neq 0$$

since the purpose of (21) is to make accountable core components in corporate governance. This is the distinctive feature of the model; otherwise it would be a remake of (7).

Remark:

It must be remembered that within the governance slack model cash flows directed to stockholders and bondholders do not convey the same meaning as they do in (2) and (3) of the SCFM. Instead, they are restricted to (14) and (16).

2.4. The dual structure of the governance slack

The structure of the slack, as depicted in (20), can be regarded as a resources-provider if we shape it in residual form:

$$E[\Delta CF_{t+1}\ (governance\ slack)] = E[\Delta CF_{t+1}\ (assets)] + E[new\ debt\ issues_{t+1}] + E[new\ stock\ issues_{t+1}] - E[\Delta CF_{t+1}\ (bondholders)] - E[\Delta CF_{t+1}\ (stockholders)] - E[\Delta CF_{t+1}\ (internal\ mutual\ fund)] - E[\Delta CF_{t+1}\ (pay\text{-}package)] \quad (22)$$

Let us think of what (22) actually suggests: it amounts to residual cash flows. The governance slack is to be financed from the following sources:

- cash flows produced by assets,
- cash flows coming out from stock or bond issues,
- depletion of the internal mutual fund, after we had already met
- due commitments towards stockholders and bondholders,
- reasonable allocation of cash flows to the executive´s pay-package.

Simultaneously, a dual structure is ingrained in the governance slack whenever it plays as a resources-allocator. Such structure follows from (15):

$$E[\Delta CF_{t+1}\ (governance\ slack)] = E[\Delta CF_{t+1}\ (sinking\ funds)] + E[\Delta CF_{t+1}\ (growth\ opportunities)] + E[\Delta CF_{t+1}\ (asymmetric\ information\ and\ agency\ problems)] + E[\Delta CF_{t}\ (risk\ management)] + E[\Delta CF_{t+1}\ (ownership\ and\ control)] \quad (23)$$

Although there might be many ways of stressing the slack components, we feel that (21) as a resources-allocator comes in handy to our purposes. This dual structure allows the slack to be regarded, on its own, as a composite of budgeted and transient sources and uses of cash flows along the period.

2.5. The underlying dynamics of the governance slack

As regards the governance slack dynamics, we can single out five stages that outline the whole process.

a) At the end of the previous period, the slack is zero, because all the components in the previous slack ought to have been relocated to their proper destination.

b) At the beginning of the incumbent period to be forecasted, the slack components must be assessed so as to uncover how the corporate governance decision-making will eventually be carried out along the period. These components will be transient, because at due time as the period evolves, they have to be apportioned to their intended and definite location.

c) To earmark expected cash flows to the governance slack components, we have to show how they are going to be financed. This can be achieved in three complementary ways:

- cash flows appropriations from the internal mutual fund,
- by taking advantage of a surplus of cash flows from assets over what has to be forwarded to bondholders and stockholders,
- by issuing new debt or new stock (simple, preferred or convertible).

d) Some examples may illustrate how the final destination of governance slack components will proceed eventually.

i. Bond repurchases budgeted in the governance slack will be bought by using cash assets.
ii. Investment projects sunk costs become part of a sinking fund relocated in the internal mutual fund.
iii. Agency relationships (contract design costs and incentives for new executives) will turn out expenses in the period, eventually.
iv. A new investment to be carried out at some date of the period is financed by issuing bonds that allow buying a new fixed asset and keeping any money remaining as short-term financial assets until the project development claims more outflows.

e) The whole framework in (21) is a complex of transient cash flows, enabling the auditing of the corporate governance decisions at the beginning of the period and, therefore, the performance valuation of management at the end of the period. In other words, (21) should be regarded as a governance budget to be submitted by managers to the Board of Director for discussion, amendment, final approval or rejection.

2.6. The soft budget constraint and free cash flows

Following Kornai (1986), any organization is said to have a soft budget constraint when it expects to be bailed out in case of financial troubles. This brings about a host of agency problems because the manager could fail to carry out a healthy financial discipline. Although the public sector is the one where the soft budget constraint has been mostly studied so far, there seems to be a growing concern about this issue in Corporate Finance as well (Lin-Tan, 1999; Maskin, 1999).

The soft budget constraint is strongly related to Jensen's free cash flows. (Apreda, 2001c) drew attention to this distinctive feature in a research dealing with corporate governance in Argentina). In fact, agency problems stems from the discretionary use of free cash flows, any time the incumbent management encroaches upon the contractual agency relationship.

Therefore, whenever free cash flows are put to use in disregard of either shareholders or bondholders interests, a soft budget constraint could follow whenever the manager expect to redress his abuse of discretionary powers by additional funding, rewarding shareholders with increased dividends, requiring bail outs from banks or governments (as it is the case in many transitional or emerging countries), issuing a new bond with more appealing covenants than

the standing ones had when issued, or looking for an outright settlement in the market for corporate control, just to single out some current examples in practice.

Remarks:

- It is worthy of remembering how Jensen defined free cash flows as "cash flow in excess of that required to fund all projects that have positive net present values when discounted at the relevant cost of capital" (Jensen, 1986).
- As we see, Jensen's free cash flows partakes of the governance slack, mainly through some components to be found in $E[\Delta CF_{t+1}$ *(growth opportunities)]* and $E[\Delta CF_{t+1}$ *(asymmetric information and agency problems)]*. To a lesser extent, some free cash flows could be included in $E[\Delta CF_{t+1}$ *(ownership and control)]*.
- However, there are many components in the slack that have no relationship with the notion of free cash flows, but to the general framework demanded for governance budgeting needs.

The governance slack model allows for the auditing and prevention of the soft budget constraint, as it does with discretionary free cash flows, because it provides a mindset from where agency problems and corporate governance issues not only can be coped with, but tracked upon with the dual-purpose budgetary discipline conveyed by (20) and (21).

3. The allocational structure of the governance slack model

Relationship (22) discloses a long-lasting residual meaning, stemming from Marshall in the XIXth century, going to current measures of economic value added. The advantages of the governance slack model over former residual measures lie on two features:

- its dual nature, given by (21) and (22), which shapes the governance slack as performing the role of being a complex framework of transient uses and sources of cash flows.
- besides, (22) provides with a functional departure to handle corporate governance issues.

To make explicit these qualifications, let us briefly expand on the inner structure of each of the float components as displayed in (22). Bear in mind, however, that the breakup of the governance slack into meaningful units does not preclude any other tentative decompositions.

3.1. Sinking funds

$$E[\Delta CF_{t+1}\,(\text{sinking funds})] = E[\Delta CF_{t+1}\,(\text{fixed assets replacement})] + E[\Delta CF_{t+1}\,(\text{sunk costs})] + E[\Delta CF_{t+1}\,(\text{short-termism})] + E[\Delta CF_{t+1}\,(\text{bonds repayment})] + E[\Delta CF_{t+1}\,(\text{corporate venture capital})] + E[\Delta CF_{t+1}\,(\text{debt and stock repurchase})]\; E[\Delta CF_{t+1}\,(\text{fixed assets replacement})] \qquad (24)$$

It is a widespread practice to allow for fixed assets consumption by writing off periodic amounts from books as depreciation charges against each period. When the replacement time comes up eventually, it is assumed that a new investment project might be undertaken. Against this conventional procedure, there is an increasing concern among institutional investors which claim for a sinking fund to match any replacement need on due schedule.

Where may those resources come from? From the governance slack, and by means of a portfolio of securities built up with float sources, usually provided by the internal mutual fund. These cash flows, however, have nothing to do with the cash flows provisions to fixed

assets for each period that the standard model requires as a way of planning maintenance of fixed assets in the realm of tactical decisions [they are sorted out from cash flows from operations (4), by the way]. Instead, we are interested here in strategic decisions regarding future capital budgeting for assets in place (Apreda, 1999). It goes without saying that replacement decisions have to take into account obsolescence and innovation.

a) $E[\Delta CF_{t+1}$ *(short-termism)]*

One of the most pervasive problems in Corporate Governance refers to "short-termism", which arises from strong pressures on management to attain good profits in the short term, neglecting the long-term view, mainly in research and development expenses (Demirag, 1998).

b) $E[\Delta CF_{t+1}$ *(sunk costs)]*

Because sunk costs stem from any investment project regardless of being accepted or not, they don't mean incremental cash flows for that project. Therefore, they should not be taken into account for that project valuation. How are sunk costs then financed? In recent Corporate Finance textbooks, we find this rule of thumb: "it is the firm which funds any investment project sunk costs with the net present value from successful investment projects" (Damodaran, 1997). The governance slack seems the most suitable place to allocate a sinking fund in charge of sunk costs.

c) $E[\Delta CF_{t+1}$ *(corporate venture capital)]*

This item has become a powerful financial device for the last two decades. In doing so, companies invest in their supplier's network, outsource their R&D efforts, and keep on going new growth-opportunities in the pipeline (Gompers-Lerner, 1999).

d) $E[\Delta CF_{t+1}$ *(debt and stock repurchase)]*

Cash flows related to debt repurchases pertain to managerial decisions, mainly on future investments, capital structure, tax advantages, or agency problems. There would be manifold grounds to repurchase stock: for instance, Treasury hedging against oncoming options to be exercised; Board decisions on increasing actual dividends by decreasing outstanding shares; financial management tactical support of prices in bear markets for the company's securities or, lastly, Treasury counteracting a likely hostile buy-out. (Stephens et al., 1999)

e) $E[\Delta CF_{t+1}$ *(bonds repayment)]*

Although many companies seem still reluctant to set up sinking funds to meet their bonds principal repayment, the procedure has become a usual covenant in many private placements, mainly because of institutional investors activism. When this sinking fund is included, the bond rating is likely to improve (Carey et al., 1993).

3.2. Growth opportunities decisions

$$E[\Delta CF_{t+1} \text{ (growth opportunities decisions)}] = E[\Delta CF_{t+1} \text{ (future capital investments)}] + E[\Delta CF_{t+1} \text{ (reorganizations)}] + E[\Delta CF_{t+1} \text{ (mergers and acquisitions)}] \quad (25)$$

a) Partly by dealing with growth opportunities, partly by addressing core corporate governance issues (mainly those related with ownership, control, independent Boards, and companies by-laws design), these cash flows become at times so interlaced that it seems functional to bundle them altogether, under the label " growth opportunities decisions". (On the market for corporate control a useful survey is Battlingmayer, 1998, whereas on corporate reorganization Balrd and Rasmussen, 2001, provides updated background)
b) From equation (20), these items may call for a portfolio made out of cash assets, new securities issues, or countervailing repurchases of outstanding shares and bonds.
c) Future capital investing departs from fixed assets replacement in that the latter refers to assets in place, and the former to future growth opportunities, in accordance with remarks made in section 1.1.

3.3. Asymmetric Information and Agency Problems

$$E[\Delta CF_{t+1}\,(\text{asymmetric information and agency costs})] = E[\Delta CF_{t+1}\,(\text{bonds and stocks covenants}) + E[\Delta CF_{t+1}\,(\text{agency contracts and incentives})] + E[\Delta CF_{t+1}\,(\text{agency problems and costs})] \quad (26)$$

a) Asymmetric information and agency costs pervade companies' lives, stemming mainly from bounded rationality, incomplete contracts and opportunistic behaviour (Williamson, 1996; Easterbrook-Fishel, 1997). It is for the governance slack to budget the related expected cash flows.
b) Cash flows linked to incentives entail issuing stock options, convertible bonds, preferred stock, bonds with warrants, preferred convertible shares, among other financial engineering products that are frequently used to provide management with incentives. Barnea, Haugen and Senbet (1985), still provides with good groundwork, while Murphy (1998) is a standard reference on incentives.
c) Covenants usually draw the line at the discretionary power of management, by limiting their decision making. We can give some examples to show the way this can be accomplished: the company is not able to buy or sell certain assets, it can't enter in merger or acquisitions processes, it must keep some financial ratios within a predetermined range of values, it ought not to issue new bonds, it must not improve the incentives system, and so on. All these limitations hold true until bonds maturity, and are contingent upon debtholders further agreements (Emery-Finnerty, 1992; and Smith-Warnes, 1979). Lately, a proposal for a Trust to deal with bond covenants is described in a paper by Amihud et al. (2001)

3.4. Ownership and Control

$$E[\Delta CF_{t+1}\,(\text{ownership and control})] = E[\,\Delta CF_{t+1}\,(\text{going public or private})] + + E[\Delta CF_{t+1}\,(\text{board composition})] + E[\Delta CF_{t+1}\,(\text{gatekeepers})] + E[\Delta CF_{t+1}\,(\text{convertible securities})] \quad (27)$$

a) For the last two decades, private placements and institutional investors' activism have included sinking funds when issuing bonds, aimed to play on the investors' safest side (Carey et al., 1993). On the other hand, there is wide latitude on how these issues evolve in different countries (Prowse, 1995).

b) Whereas "going public decisions" include IPOs (Zingales et al., 1998), "going private decisions" have also to do with delisting.
c) The role of gatekeepers (investment banks, audit and law firms, trustees) has been under strong criticism lately, and their matching costs must be taken into account as an explicit governance item [Coffee (2001), (2002); Kane (2003)]

3.5. Risk management

$$E[\Delta CF_{t+1}\,(\text{risk management})] = E[\Delta CF_{t+1}\,(\text{financial risks})] + E[\,\Delta CF_{t+1}\,(\text{credit risk})] \qquad (28)$$

a) Financial risks involve chiefly interest rates, commodities and foreign exchange risks. (Background on this in Smith-Smithson-Willford, 1995). All of them are exogenous to the firm and hedgeable, therefore. Credit risk ought to be definitely regarded as a distinctive component in the governance slack, because likely changes in credit ratings can backfire on the company's expected future cash flows. Besides, this is the place to audit and manage collaterals involving cash flows on behalf of creditors.
b) The governance slack looks like a perfect match to account for off-balance items as they arise out of options and forwards contracts, swaps, or other financial composites engineered on the grounds of hedging the risk company's profile (Sundaresan, 1997). In general, the suggested handling of these cash flows, within a governance context, could restrain some creative accountancy that stems from pervading asymmetric information. (On this issue can be useful Apreda, 2001a)
c) Credit and financial risks, when mishandled, could allow the management to take more risks than shareholders really know. Enron might be a case in point.

Conclusions

By introducing a cash flow approach to cope with current governance problems, this paper gets the following outcomes:
a) It modifies and enlarges the standard cash flow model, overcoming some of its standing downsides eventually.
b) A governance slack comes defined as a composite of distinctive sources and uses of cash flows aimed to become functional through the interplay of a broad range of governance items, making plain how they are financed and where they should be applied further.
c) The governance slack carries out two interlocked functions. In the first place, it provides with a governance budget. In the second place, it allows for the monitoring of managers' decision-making. This last feature takes place since ex~post actual allocations of governance cash flows can be contrasted with those assessed in the budget. In other words, the governance slack enhances the company's accountability.

References

1. Amihud, Y.; Garbade, K. and Kahan, M. (2001). *An Institutional Approach to Reduce the Agency Costs of Public Bonds*. SSRN, Working Paper 255587.
2. Apreda, R. (1999). "The Cash Flow Model with Float: A New Approach to Deal with Valuation and Agency Problems", *Journal of Applied Economics*, vol. 2, November, pp. 247-279.
3. Apreda, R. (2001a). *The Brokerage of Asymmetric Information*. University of Cema, Working Paper Series number 190, Buenos Aires.

4. Apreda, R. (2001b). *A Cash Flow Model with Float to Deal with Corporate Governance Issues*. Working Paper Series S01-4, Salomon Center, Stern School of Business, New York University.
5. Apreda, R. (2001c). Corporate Governance in Argentina: 1991-200. The Consequences of Economic Freedom. *Corporate Governance: An International Review*, volume 9, number 4, pp. 298-310.
6. Apreda, R. (2002a). *The Governance Slack Model: A Cash Flow Approach for the Budgeting and Accountability of some Corporate Governance Issues.* University of Cema, Working Paper Series number 212, Buenos Aires.
7. Apreda, R. (2002b). *How Corporate Governance and Globalization can run Afoul of the Law and Good Practices in Business: The Enron´s Disgraceful Affair*. University of Cema, Working Paper Series number 225, Buenos Aires. Downloadable from www.ssrn.org.
8. Balrd, D. and Rasmussen, R. (2001). *Control Rights, Priority Rights and the Conceptual Foundations of Corporate Reorganizations*. Working Paper 121, John Olin Law and Economics, Chicago Law School.
9. Barnea, A.; Haugen, R. and Senbet, L. (1985). *Agency Problems and Financial Contracting.* Prentice-Hall, New Jersey, USA.
10. Battlingmayer, G. (1998). *The Market for Corporate Control*. Working Paper 5640, Graduate School of Management, University of California (Davies).
11. Benninga, S. and Sarig, O. (1997). *Corporate Finance: A Valuation Approach*, New York, McGraw Hill.
12. Carey, M.; Prowse, S.; Rea, J. and Udell, G.(1993). *The Economics of Private Placements: A New Look.* Financial Markets, Institutions and Instruments. New York University Salomon Center. New York.
13. Coffee, J.(2001). *The Acquiescent Gatekeepers: Reputational Intermediaries, Auditor Independence and the Governance of Accounting*. Working Paper 191, School of Law, Columbia University.
14. Coffee, J.(2002). *Understanding Enron: It´s about the Gatekeepers, Stupid*. Columbia Law and Economics Working Paper, number 207. Downloadable from www.ssrn.org.
15. Damodaran, A. (1997). *Corporate Finance: Theory and Practice*, New York, John Wiley.
16. Damodaran, A. (1996). *Investment Valuation*, New York, John Wiley.
17. Damodaran, A. (1999). "Value Creation and Enhancement: Back to Future", *SSB Working Paper, Stern School of Business*, New York University, New York.
18. Demirag, I. (Editor) (1998). *Corporate Governance, Accountability, and Pressures to Perform. An International Study*. Jai Press, London.
19. Easterbrook, F. and Fischel,D. (1991). *The Economic Structure of Corporate Law*. Harvard University Press, Massachusetts.
20. Elton, J. and Gruber, M. (1995). *Modern Portfolio Analysis and Investment Theory*. John Wiley, New York.
21. Emery, D; Finnerty, J. (1992). A Review of Recent Research Concerning Corporate Debt Provisions. *Financial Markets, Institutions and Instruments*, volume 1, number 5, New York University Solomon Center, New York.
22. Gompers, J. and Lerner, G. (1999). *The Venture Capital Cycle*. The Mit, Cambridge, Massachusetts.
23. Jensen, M. (1986). "Agency Costs of Free Cash Flow, Corporate Finance and Takeovers", *The Economic Review*, volume 76, pp. 323-329.
24. Kane, E.(2003). *Continuing Dangers of Disinformation in Corporate Accounting Reports*. Working Paper 9634, National Bureau of Economic Research. Downloadable from www.nber.org/.
25. Kornai, J. (1986). The Soft Budget Constraint. *Kyklos*, March, volume 36, number 1, pp. 1-30.
26. La Porta, R.; Lopez de Silanes, F; Shleifer, A. and Vishny, R. (2000). Agency Problems and Dividend Policies around the World. *Journal of Finance*, volume 55, pp. 1-33.
27. Lin, Justin and Tan, Guofu (1999). *Policy Burdens, Accountability and the Soft Budget Constraint*. American Economic Review, May, volume 89, number 2, pp. 426-431.

28. Maskin, Eric (1999). *Recent Theoretical Work on the Soft Budget Constraint*. American Economic Review, May, volume 89, number 2, pp. 421-425.
29. Murphy, K. (1998). *Executive Compensation*. Working Paper 163914. Downloadable from www.sssrn.org/
30. Prowse, Stephen (1995). *Corporate Governance in an International Perspective*. Financial Markets, Institutions and Instruments. New York University Salomon Center. New York.
31. S. Ross, S.; Westerfield, R.; Jaffe, J. (1999). *Fundamentals of Corporate Finance*, New York, Irwin, fifth edition.
32. Smith, C. and Warner, J. (1979). On Financial Contracting: An Analysis of Bond Covenants. *Journal of Financial Economics*, volume 7, pp. 117-161.
33. Smith, C.; Smithson, C. and Willford, S. (1995). *Managing Financial Risks*. Irwin, Chicago.
34. Stephens, C.; Jagannatha, M. and Weisback, M. (1999). *Financial Flexibility and the Choice between Dividends and Stock Repurchases*. SSRN, Working Paper 148548.
35. Sundaresan, S. (1997). *Fixed Income Markets and their Derivatives*. South-Western College Publishing, Thomson Group, Ohio.
36. Williamson, O. (1996). *The Mechanisms of Governance*. Oxford University Press. Oxford
37. Zingales, L. (2000). In Search of New Foundations. *Journal of Finance*, vol. 55, n. 4, pp. 1623-1653.
38. Zingales, L., Pagano, M. and Panetta, F. (1998). Why do Companies Go Public? An Empirical Analysis. *Journal of Finance*, volume 53, number 1, pp. 27-64.