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**THE SUBSIDIARITY PRINCIPLE  
AND THE NEGATIVE SPREAD**

**A CASE IN POINT FOR THE GOVERNANCE  
OF STATE-OWNED BANKS**

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## **ABSTRACT**

This paper sets forth a new perspective to address some problems that arise from the mixed governance nature of a state-owned bank. Firstly, it stresses that the principle of subsidiarity is at the root of decision-making processes in which the bank involves itself on the grounds of political demands. Secondly, it focus on the uses and misuses of the principle of subsidiarity, putting forward the notion of the subsidiarity portfolio to redress misuses and enhance the governance of these institutions. Next, it defines the assets and liabilities portfolios of the bank and, by means of a break-even analysis of those portfolios' returns, inclusive of the costs-benefit structure, it introduces the rate of subsidiarity. Afterwards it moves on to the negative spread to measure up how far the subsidiarity abuse acts upon the return and costs-benefit structure of the bank. Lastly, it enlarges about linkages between risk and subsidiarity on the one hand, and quasi-fiscal activities on the other hand.

**JEL: G2; H1; G3**

**Key Words: subsidiarity, governance, state-owned banks, spread, quasi-fiscal activities.**

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## **DISCLAIMER**

Statements and opinions conveyed in this paper are attributable to the author only, while the University of Cema does not necessarily subscribe to them.

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<sup>2</sup> The Seminar was held at the Hilton Hotel, Buenos Aires, in October 2005, managed by the Center for the Financial Stability (CEF).

## **INTRODUCTION**

It is our contention in this paper that a strong linkage arises between the so-called Principle of Subsidiarity and the negative spread of state-owned banks. Furthermore, we will argue that this is a daunting issue when we witness the way those banks draw out of such principle the rationale they need to take advantage of the negative spread. The whole topic has a stringent relevance for developing countries.

Although this is a conflictive subject-matter on account of ideological biases, I think it allows a wide-ranging latitude for attempting a serious academic pursuit in order to gain understanding of state-owned banks and their underlying mixed governance.

A further remark seems fitting: I do not intend to give any policy suggestion about the final shape these institutions should adopt in the future, either by means of an outright privatization, a mixed ownership structure, or leaving them as state-owned banks eventually.

My line of research is the first step in a broader attempt to study the governance in the public sector in general, and the state-owned banks in particular. The contents of this working paper will be enlarged in the first quarter of 2006 by the following publications:

- a) *The Subsidiarity Portfolio and a New Fiduciary Role for State-Owned Banks.*
- b) *About Dual Governance: How to enhance State-Owned Banks Accountability, Compliance, and Transparency.*

As for the roadmap of this paper, in section 1 we are going to deal with the principle of subsidiarity, mainly through the Liberal tradition, followed by the contribution to this topic from the Catholic Church, ending with the Maastrich point of view about subsidiarity.

It is for section 2 to expand on the use and misuse of the principle of subsidiarity by state-owned banks. Afterwards, and in section 3, we introduce the negative spread. Finally, section 4 will tie subsidiarity together with the negative spread.

## 1. THE PRINCIPLE OF SUBSIDIARITY

The mainstream meaning attached to the term **subsidiarity** highlights the action, task, or responsibility of a higher level of organization intended to supply or strengthen another action, task, or responsibility that is located at a lower level, in case the latter may fail. But this notion is double edged, as the Macmillan English Dictionary (2002) brings to light, and *Exhibit 1* intends to convey:

***Subsidiarity***: *the principle that decisions should be made at the lowest possible level of a government or an organization, rather than always being made at a high level.*

Broadly speaking, subsidiarity constrains the central authority to have a subsidiary function<sup>3</sup> only in certain cases, performing those tasks that a more immediate or local level cannot effectively carry out eventually.

By and large, this notion encompasses a wide-ranging semantics, and it is not surprising that political rhetoric has opportunistically profited from such a feature in a pervasive way. Hence, it seems sensible for our purposes to highlight at least three perspectives from which the principle of subsidiarity is currently dealt with:

- the Liberal approach;
- the Catholic Church contribution;
- the Maastrich viewpoint.

Last of all, I will outline an assessment of subsidiarity in the framework of public governance.

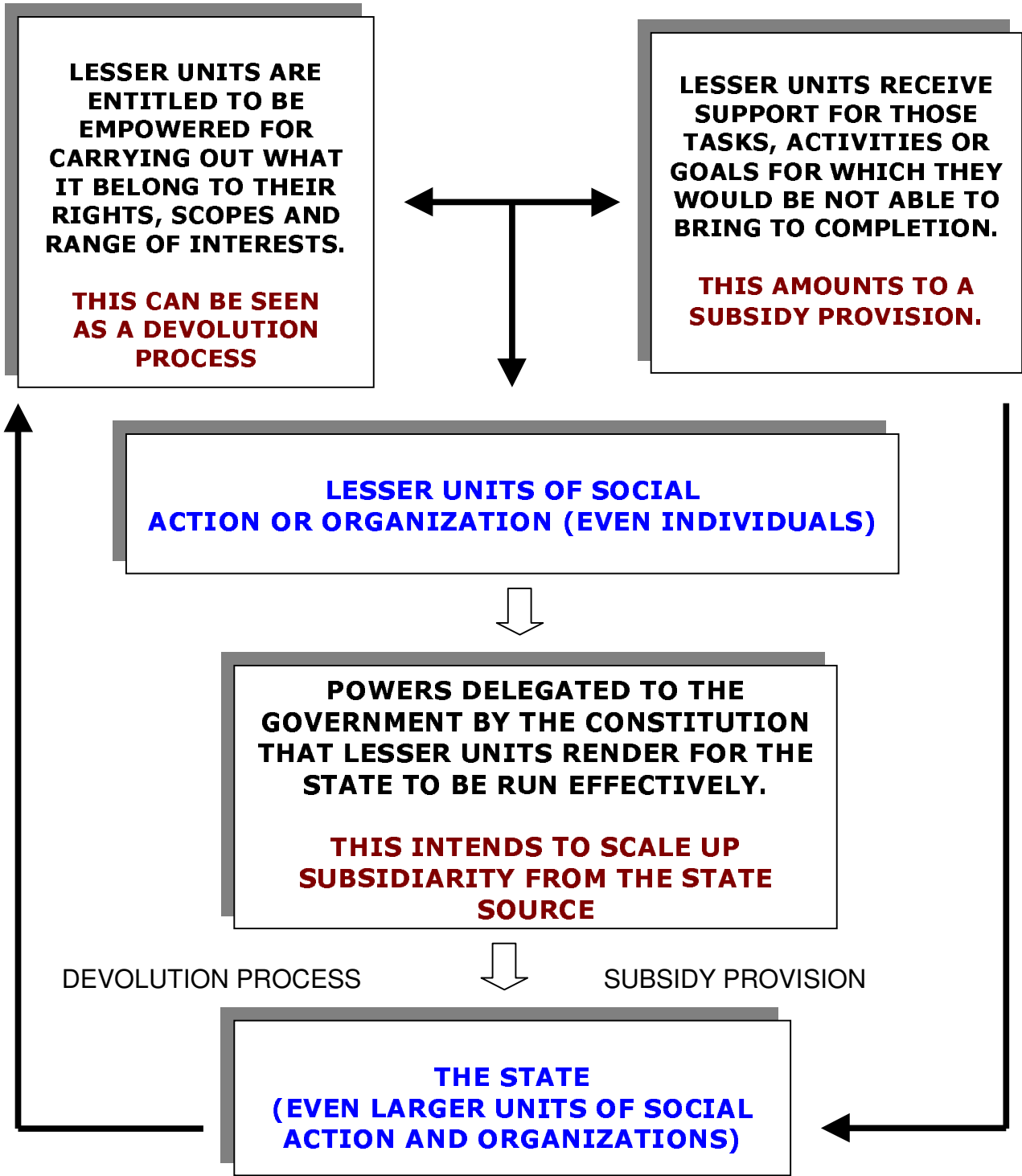
### 1.1 The Liberal Approach

A meaningful source of subsidiarity can be traced back to the early foundations of American Federalism, as portrayed in the famous **Tenth Amendment** to the United States Constitution:

*"The powers not delegated to the United States by the Constitution, nor prohibited by it to the States, are reserved to the States respectively, or to the people".*

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<sup>3</sup> Such is the current meaning of **subsidiary**, that is to say, "connected with, but less important than something else" (Longman Dictionary of Contemporary English, 2003).



*Exhibit 1      The twofold nature of the Principle of Subsidiarity*

By the way, this was the Amendment that Justice Marshall<sup>4</sup> and the Supreme Court referred to when upholding the constitutionality about the creation of a second national bank in the landmark case *McCulloch v. Maryland*, 1819. As Linda Monks (2003) put it:

*The Court declared that Congress had the power to establish a national bank, although it was not specifically listed in the Constitution, and Maryland did not have the power to tax a bank created by the Federal Government.*

The Tenth Amendment was consistent with the great debate then unfolding in the United States between Federalists and Anti-Federalists. The explicit purpose of the Founding Fathers was to limit central government to the specific power granted by the Constitution. In actual words, when the federal government intrudes the rights and responsibilities of state and local governments, such an action is regarded as an infringement of the principle of subsidiarity.

At this juncture, we also keep in mind the “forgotten Amendment” as the Ninth Amendment (1791) has been called, which intends to deal with enumerated rights of citizens:

*The enumeration in the Constitution, of certain rights, shall not be construed to deny or disparage others retained by the people.*

The purpose of James Madison<sup>5</sup>, who was the author of the Bill of Rights within which both the Ninth and Tenth Amendments are placed, consisted in shielding people’s rights through the Ninth Amendment. On the other hand, by means of the Tenth Amendment he set about to safeguard the rights retained by single states. This politically double-edged translation of the principle of subsidiarity is clearly depicted in *Exhibit 1*.

## **1.2 The social contribution of the Catholic Church**

From the standpoint of the Catholic Church, the principle of subsidiarity has been framed on the grounds of the autonomy and

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<sup>4</sup> The reader interested in Chief Justice Marshall’s influence is referred to the outstanding contribution of Professor Nelson “*Marbury v. Madison – The Origins and Legacy of Judicial Review*”, University Press of Kansas, 2000.

<sup>5</sup> James Madison, one of the Founding Fathers, also wrote the final draft of the United States Constitution. Ralph Ketcham (1990) provides an excellent biography of this prominent statesman.

dignity of any human person (see *Exhibit 1*). As an illustration, let us quote Pope Pius XI in the encyclical *On The Fortieth Year*<sup>6</sup>, who said

*It is quite wrong for things that can be done by individuals through their own efforts to be taken away from them and devolved to the community. Every agency in society ought to use its special powers to give support (subsidy) to the member of the social body, and never to destroy or absorb them.*

Needless to say, this amounts to limited government and personal freedom. It is worthy of being outlined a strong relationship between the American Federalist approach and the Catholic Church opinion. For instance, Tocqueville (1835), who rendered account of the striking features of the American democracy, earnestly warned about the centralizing drive of modern democracies. On his own side, Pope John Paul II in his *Centesimus Annus* (1991) criticized what in the twentieth century came to be known as the Welfare State (or Social Assistance State). Furthermore, both Tocqueville and John Paul II were staunch supporters of mediating institutions. Pope John Paul put it down this way<sup>7</sup>:

*By intervening directly and depriving society of its responsibility, the Social Assistance State leads to a loss of human energies and an inordinate increase of public agencies, which are dominated more by bureaucratic ways of thinking than by concern for serving their clients, and which are accompanied by an enormous increase in spending.*

### **1.3 The Maastricht Approach**

Lastly, subsidiarity has been a corner stone in the Maastricht Treaty (1993) for the European community, to the extent of being second only to human rights.

*The European Communities shall take action only if and insofar as the objectives of the proposed action cannot be sufficiently achieved by the member states and can therefore, by reason of the scale or effect of the proposed action, be better achieved by the community.*

Thus, the EU may make laws when member states agree that locally enacted laws could not be performing or suitable to other state members.

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<sup>6</sup> The direct antecedent of subsidiarity as a primary concern of the Catholic Church goes back to the encyclical *Rerum Novarum*, 1891, by Pope Leo XIII.

<sup>7</sup> *Centesimus Annus*, 1991, section 48, fifth paragraph.



## **1.4 Public Governance and the Principle of Subsidiarity**

In spite of such strong foundations the Federalist tradition laid upon the United States tradition, that were later followed and strengthened by the Catholic and Maastrich viewpoints, subsidiarity has been predicated on behalf of any kind of state intervention. In actual fact, from market failures, high unemployment levels and weak regional economies, to the protection of local industries, disadvantageous competition patterns, immigration disruptions in the labor market, education asymmetries, health care and disease prevention shortcomings.

On this far-reaching agenda, subsidiarity has righted many wrongs in society for longer than century, but it has also become a political tool underpinning opportunistic targets to the extent of giving way to outrageous rent-seeking and corruption. In practice, we find social action programs and subsidies among the most used devices that come in handy to accomplish the subsidiarity ideals as well the politicians' goals.

Although it has often been argued that the state is the only institution to which we can request to be concerned with subsidiarity issues this is not longer tenable, however. For instance, Hart (2002) has made a case around the incomplete contracts and private ownership, a fact which shows a strong linkage with the subsidiarity role:

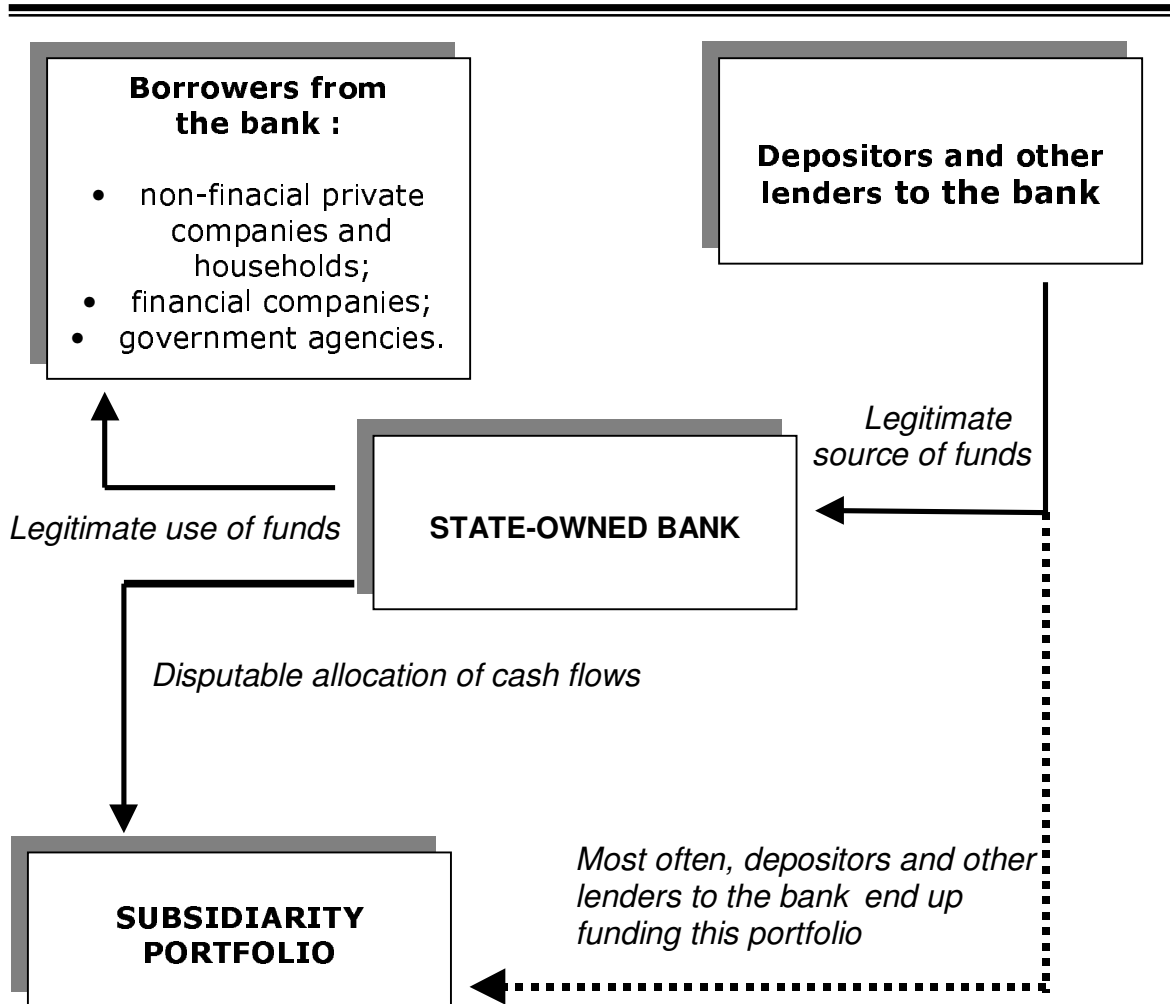
*The government is often thought of as a very different agent from a private firm: it is concerned with social welfare rather than just profit. Here, however, the distinction is less sharp than it might seem at first sight since there are a number of firms (particularly non-profits or cooperatives) that have broader concerns than just profits.*

## **2. USE AND MISUSE OF THE PRINCIPLE OF SUBSIDIARITY IN STATE-OWNED BANKS**

When a state-owned bank is chartered, most often than not the principle of subsidiarity is invoked<sup>8</sup>. Any time the bank steps towards the commercial field of practice, it backs up its activity and decision-making processes on behalf of the principle of subsidiarity (see *Exhibit 2*).

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<sup>8</sup> Although not explicitly, which does not seem of the essence here. The distinctive feature remains, however, on how it is used for sheerly enhancing political agendas.



*Exhibit 2: Monetary flows through the commercial side of the state-owned bank and to the subsidiarity portfolio, to be likely financed by depositors.*

These activities can be embedded into a distinctive portfolio of assets that should be disclosed in its financial statements, and to which we are going to label the "**Subsidiarity Portfolio**"<sup>9</sup>. From the bank perspective, subsidiarity should be recorded through virtual lending, an outright transfer of resources to third parties, the granting of loan

<sup>9</sup> We are going to enlarge further upon this topic in the working paper *The Subsidiarity Portfolio and a New Fiduciary Role for State-Owned Banks*, forthcoming in February 2006.

guarantees, exchange-rate insurance, bail-outs to underperforming companies, among other items<sup>10</sup> that lead to quasi-fiscal activities and the accounting of contingencies.

Whereas each of these commitments could be explained in terms of the outright application of the principle of subsidiarity, there are several thorny and daunting questions for which state-owned banks charters and boards of directors must be held accountable, among which we could highlight three of them.

**a) Where is the bottom line to be drawn?**

**b) When is the threshold of fairness trespassed, wedging open a gap that nurtures discretionary decision-making, soft-budget constraints, widespread political clientelism, law infringement and corruption?**

**c) How does the bank become accountable for decisions that make use of public and depositors' resources?**

We ought to ask to ourselves: why is this subject matter so important when we deal with state-owned banks? Because those banks are a clear-cut example of a mixed governance where the realm of the public overlaps with the one of the private in a pervasive and disturbing fashion.

The principle of subsidiarity turns out to be the rationale that allows the bank to accomplish transactions or transferences within the public side, albeit the resources to be used may be diverted from the private side. Let us expand further on this point.

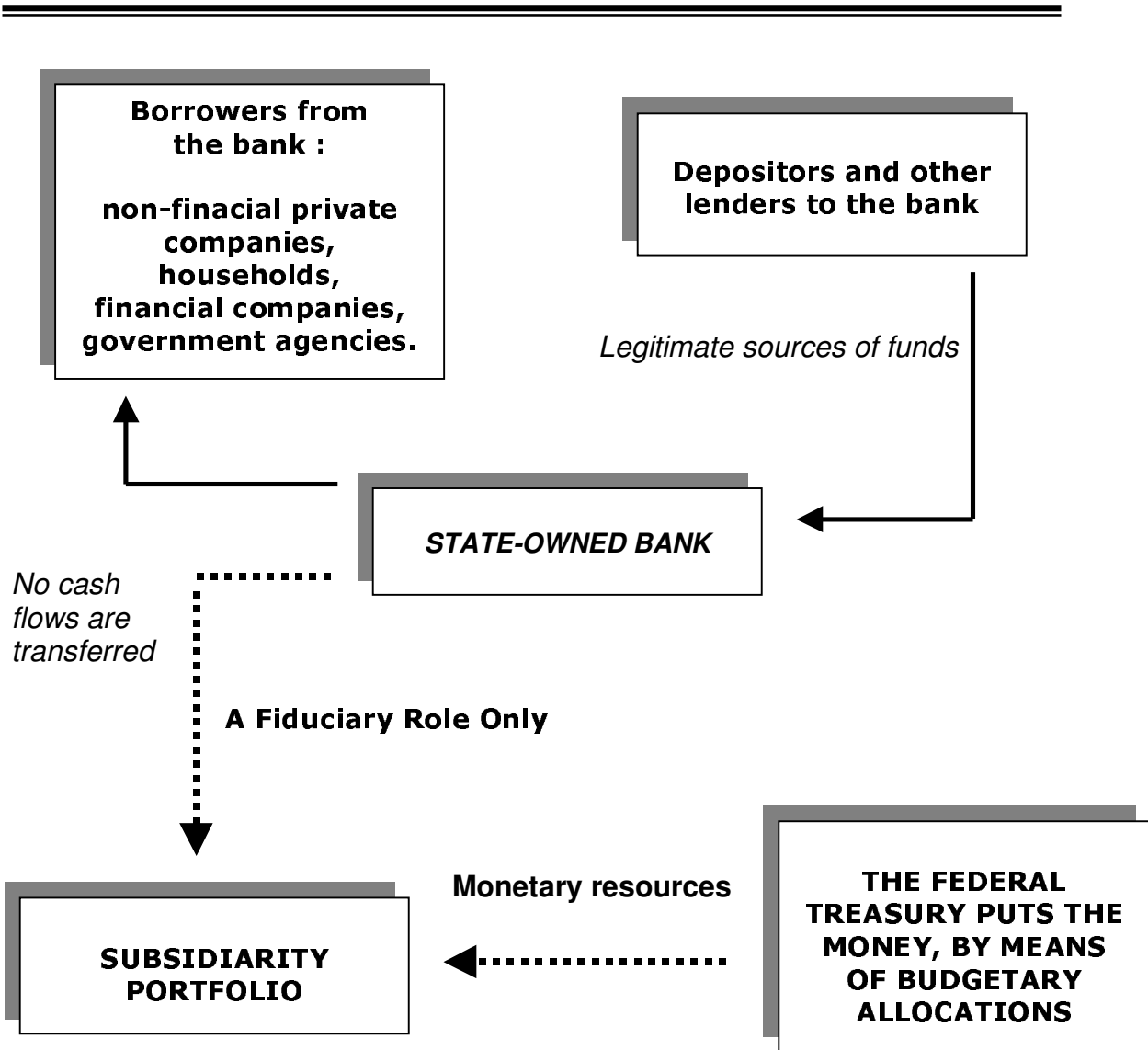
Funding sources for any bank stem from depositors and other lenders to the bank (see *Exhibits 2 and 3*). Those monetary inflows should be applied to meet the needs of borrowers from the bank while idle cash balances may be allocated to a portfolio consisting of temporary investments (mainly through purchases of government bonds as well other financial assets within the boundaries of the regulatory framework enforced for the time being.

When the bank is state-owned, it fulfills a subsidiarity role whose actual nature is lessened to the extent of meaning only subsidy.

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<sup>10</sup> This issue will be followed up in section 4.2.

However, granting subsidies calls for opportunistic behavior and political clientelism, even sheer lack of transparency. To make things worse, in Latin American countries Accountability processes seem bluntly disregarded, while the flouting of the law becomes, in the public eye, a signal of political skill and prowess.



*Exhibit 3 Monetary flows through the commercial side of the state-owned bank. The subsidiarity portfolio to be financed by the Treasury.*

Witnessing how subsidy granting is funded in these institutions, we could not be surprised at finding out that it proceeds by grabbing depositors and other lenders to the bank. Even worse, funds are swapped over not only to furnish cheaper loans to private companies, but also to switch resources from depositors to the government.

In Exhibit 3, an alternative is set forth, by which the subsidiarity portfolio gets financed through the Treasury by means of budgetary allocations and transfers, while the state-owned bank acts upon this portfolio only performing a fiduciary role<sup>11</sup>. Such design shields depositors and other lenders from being grabbed by the bank in pursuit of political demands.

### **3. THE NEGATIVE SPREAD**

We are going to expand on the line of argument we started in section 2, but from a narrower frame of reference: we intend to show how state-owned banks become a clear example of the use and misuse of the subsidiarity principle.

This approach, therefore, calls for a quantitative measure of the pervading and fuzzy application of the principle of subsidiarity to the operations of a state-owned bank.

We are going to labor this point further by means of the negative spread, which will be developed through three stages:

- a) firstly, the underlying portfolios of the bank assets and liabilities will be brought to light;
- b) secondly, the costs-benefit structure will be highlighted;
- c) thirdly, a break-even point relationship will be built up, to link the assets portfolio rate of return, with the one arising from the liabilities portfolio.

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<sup>11</sup> This statement is fully enlarged in our forthcoming paper, *The Subsidiarity Portfolio and a New Fiduciary Role for State-Owned Banks*.(February 2006)

## THE UNDERLYING PORTFOLIOS

Let us assume that we choose a determined span of time to be called the planning horizon  $\mathbf{H}$ , that starts at date  $\mathbf{t}$  and finishes at date  $\mathbf{T}$ . That is to say,

$$\mathbf{H} = [ \mathbf{t} ; \mathbf{T} ]$$

Although some ideas in this section are fairly innovative, the methodology of analysis come down to the usual toolkit of Monetary Analysis applied to bank positions<sup>12</sup>.

At date  $\mathbf{t}$ , the state-owned bank has a portfolio consisting of liabilities whose average-rate of financial costs to be paid to creditors<sup>13</sup> will be denoted as

$$r( \mathbf{t}, \mathbf{p} )$$

that stands for "*average rate of return due to securities in the liabilities position*". The technical Appendix at the end of this paper lay foundations for this and subsequent statements.

Cutting down to essentials, such portfolio can be thought as a bundle of expected cash flows of new term-deposits arising along the planning horizon. If we wanted a higher level of complexity, we would add up other sort of liabilities, even to the extent of assimilating to this portfolio the whole of the liabilities side in the bank's financial statements. We must bear in mind that, from a financial-engineering point of view, there would be no item among assets, liabilities or capital accounts that could not be shaped as synthetical financials<sup>14</sup>.

By the same token, we would have on the side of the assets-portfolio a major set of items related to financial bundles, each consisting of different kinds of loans granted to companies, households and distinctive levels of municipal, state or federal governmental agencies. Such assets portfolio is an essential source of revenues for the bank. The expected average-rate from those revenues could be denoted as

$$r( \mathbf{t}, \mathbf{a} )$$

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<sup>12</sup> A detailed treatment in Apreda (1985).

<sup>13</sup> Among them depositors, bond creditors, lending institutions. Average rates of return are dealt in Apreda (2005b).

<sup>14</sup> Marshall (1990) delivers a comprehensive introduction to Financial Engineering.

that stands for "average rate of return due to securities in the assets portfolio".

## **THE COSTS-BENEFIT STRUCTURE**

Once the underlying portfolios have been sharpened up to an operational level, we can move on to the costs-benefit structure.

a) Firstly, we take into account transaction costs<sup>15</sup> in a much broader sense than they are usually understood, by including the following items:

- trading costs arising from selling and purchasing banking positions;
- taxes arising from portfolios' transactions;
- information costs to build up the required portfolios;
- financial costs to make transactions feasible;
- microstructure costs mainly due to regulations and financial intermediation.
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As regards the liabilities-portfolio, we can assess an expected average-rate<sup>16</sup> of transaction costs that will be denoted by

$$\mathbf{r(t, tc, p)}$$

and the same could be predicated upon the assets-portfolio:

$$\mathbf{r(t, tc, a)}$$

b) The bank also runs fixed and variable costs. As a whole, they could be attributed to the main source of revenues by means of an expected average-rate

$$\mathbf{r( t, fvc )}$$

c) Last of all, we can deal with a mark-up that translates the minimal expected average-rate of benefit

$$\mathbf{r( t, ben ).}$$

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<sup>15</sup> For a comprehensive analysis of transaction costs in financial systems see Apreda (2000, 2005a, 2005b)

<sup>16</sup> "tc" stands for transaction costs.

## THE BREAK-EVEN POINT RELATIONSHIP

At this point of the analysis, we are ready to lay down a break-even relationship<sup>17</sup> that brings to light the gap between the active and passive rates, providing for transaction costs, fixed and variable costs, and benefit as well<sup>18</sup>:

$$\begin{aligned} & \text{[ 1 + r( t, a, break-even ) ]} = & (1) \\ & = \text{[ 1 + r( t, p ) ]} \cdot \text{[ 1 + r( t, tc, a ) ]} \cdot \\ & \cdot \text{[ 1 + r( t, tc, p ) ]} \cdot \text{[ 1 + r( t, fvc ) ]} \cdot \text{[ 1 + r( t, ben ) ]} \end{aligned}$$

We must bear in mind that (1) conveys what is termed in financial and monetary analysis the technical spread, that is to say:

$$\begin{aligned} & \text{[ 1 + technical spread( t ) ]} = \text{[ 1 + r( t, tc, a ) ]} \cdot & (2) \\ & \cdot \text{[ 1 + r( t, tc, p ) ]} \cdot \text{[ 1 + r( t, fvc ) ]} \cdot \text{[ 1 + r( t, ben ) ]} \end{aligned}$$

Hence, we can rewrite (1) as follows:

$$\begin{aligned} & \text{[ 1 + r( t, a, break-even ) ]} = & (3) \\ & = \text{[ 1 + r( t, p ) ]} \cdot \text{[ 1 + technical spread( t ) ]} \end{aligned}$$

If we carried out this assessment in fairness and transparency<sup>19</sup>, the cost factors in (2) would show themselves rather impervious to any shrinkage<sup>20</sup>, at least in the short-term.

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<sup>17</sup> We are going to take advantage of a multiplicative model for the rates of return. Somewhere else we had coped at length with differences between the additive and the multiplicative models for rates of return (Apreda, 2005a).

<sup>18</sup> The format that comes after is an example of differential rates, a detailed development of which could be found in Apreda (2001).

<sup>19</sup> This could mean that a proficient analyst, given similar inputs, could attain similar outcomes.

<sup>20</sup> Provided that at the time of the assessment we are not involved with restructuring activities or a systematic cutting down on costs.



For the sake of illustration, let us assume that market conditions fashion a bearish trend in rates of return to the extent of not making up for their combined effect in (3). Therefore, for the breakeven point to hold we must shift the rate of benefit downwards, other things kept equal eventually. This seems to be the standard picture for banks in the private sector. However, we need to take a deeper look at state-owned banks, and wonder to what extent the same picture will hold or if it ought to be modified eventually.

To round off this section, relationship (1) spells out the sources of the asset portfolio return within the boundaries of the minimum level that covers the costs-benefit structure and the reward to depositors. Therefore, the actual rate of return stemming from the asset portfolio ought to be higher than the break-even value. This is the mainstream rationale in the private banking sector, and the differential between the actual and the break-even rate contributes to enhance value and get access to better benefits. Another compelling reason for the actual rate to overcome the break-even one lies in risk, which we are going to deal with in section 4.1.

#### **4. THE NEGATIVE SPREAD AND THE PRINCIPLE OF SUBSIDIARITY**

If we were concerned with the likely breakeven gap that must hold with state-owned banks, two problems would arise for certain:

- *What will be the meaning attachable to the mark-up for benefit?*
- *What kind of role will the subsidiarity principle play in the structure of the break-even point rate conveyed by (1)?*

##### **a ) THE MARK-UP FOR BENEFIT**

At this juncture, some analyst could remark that benefits are not the core target for a state-owned bank. This point of view seems not only misplaced but heavily biased towards ideological viewpoints.

In actual fact, even for banks in the private sector, benefits are to be split down into three main components:

- long-term assets value maintenance;

- value creation or, at least, inertial value enhancement<sup>21</sup>;
- minimal benefits under the guise of profits that are directed to stockholders.

It could be hardly dismissed that the two first components are of the essence, either for private or state-owned banks. The third item may remain debatable. However, the state-owned bank should be accountable for getting a "social-benefit", or a contribution to help the fiscal budget.

As regards the issue of benefits, it could be helpful to recall what the Charter of one important state-owned bank in Latin America, the BNA (Banco Nación Argentina), spells out in its Article 5:

*From benefits out of the annual financial statements, after depreciations, provisions, penalties and reserve requirements required by the Board, the following allocations will ensue:*

- 50% of them to increase the Bank's equity;
- 25% to set up a Subsidy Fund intended to lessen interest rates in loans for small- and medium-size firms;
- 25% to set up a Subsidy Fund intended to lessen interest rates in loans to Councils and Provinces.

Hence, we reach a new environment for the benefit rate:

$$\begin{aligned}
 [ 1 + r( t, \text{ben} ) ] &= [ 1 + r( t, \text{maintenance} ) ] \cdot \\
 &\cdot [ 1 + r( t, \text{value creation/enhancing} ) ] \cdot \\
 &\cdot [ 1 + r( t, \text{profits to stockholders} ) ]
 \end{aligned}
 \tag{4}$$

## **b ) THE ROLE OF SUBSIDIARITY IN THE BREAK-EVEN POINT RELATIONSHIP**

We could split down the breakeven relationship into two levels of analysis<sup>22</sup> and profit from (3) to get

<sup>21</sup> "Inertial" means here that even if the bank's managers were failing in creating value, market conditions out of their own dynamics, could be supportive of the bank growth.

<sup>22</sup> [1+ technical spread( t )] comes after we divide both sides of (3) by [1+ r( t, p )].

$$[ 1 + r( t, a, \text{break-even} ) ] \cdot [ 1 + r( t, p ) ]^{-1} = \quad (5)$$

$$[ 1 + \text{technical spread} ( t ) ]$$

More briefly, bundling the cost items together, it holds from (2)

$$[ 1 + \text{technical spread}( t ) ] = \quad (6)$$

$$= [ 1 + r( t, \text{costs} ) ] \cdot [ 1 + r( t, \text{ben} ) ]$$

For the breakeven relationship depicted by (1) or (3) to hold for state-owned banks, we need to add a component that should be alien to private banks but, as we saw in section 2, it is of the essence for this kind of organization: the subsidiarity rate

$$r(t, \text{subs})$$

It is for this rate to fill the gap arising in the source of income conveyed by the active rate, with respect to the passive rate and the technical spread. In other words, and taking advantage of (3) it holds that:

$$[ 1 + r( t, a, \text{break-even} ) ] = \quad (7)$$

$$= [ 1 + r( t, a, \text{actual} ) ] \cdot [ 1 + r(t, \text{subs} ) ]$$

$$= [ 1 + r( t, p ) ] \cdot [ 1 + \text{technical spread} ( t ) ]$$

If we solved for the actual active rate of return in (7), we would get:

$$[ 1 + r( t, a, \text{actual} ) ] = [ 1 + r( t, p ) ] \cdot \quad (8)$$

$$\cdot [ 1 + \text{technical spread} ( t ) ] \cdot [ 1 + r(t, \text{subs} ) ]^{-1}$$

In consequence, we proceed to reshape the gap structure in (3), by defining the spread with an inclusive meaning that takes into account both the technical spread and the rate of subsidiarity:

(9)

$$\begin{aligned} & [ 1 + \text{spread}( t ) ] = \\ & = [ 1 + \text{technical spread} ( t ) ] \cdot [ 1 + r(t, \text{subs}) ]^{-1} \end{aligned}$$

As long as the source of revenues

$$[ 1 + r( t, a, \text{actual} ) ]$$

prevails over the passive rate, costs, benefits and subsidiarity rates, then the gap in (9) remains positive.

But let us assume that we introduce a cost of subsidiarity big enough so that it overcomes the scope of the active rate, which fails then to cover the costs-benefit structure. If this assumption were true, the gap in (9) should turn to be not only negative but a sheer downside for the bank as well (see the numerical example below).

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### **NUMERICAL EXAMPLE**

a) Let us assume that the bank agrees with the following policy decision:

*Make the active rate cheaper to help borrowers in certain regions to foster economic activity and employment.*

b) We adopt a six-month horizon, in which the expected average rate for the liabilities portfolio return amounts to 5% in the semester, the technical spread rounds off 2%.

c) The bank works out that the active rate should be 3%, and we assess the value **m** that balances the active rate with the technical spread and the passive rate:

$$1.03 = 1.05 \times 1.02 \times ( 1 + \mathbf{m} )$$

$$1.03 = 1.0710 \times ( 1 + \mathbf{m} )$$

$$1 + \mathbf{m} = 0.9617$$

$$\mathbf{m} = - 0.0383 \text{ ( -3.83\% )}$$

d) How far did we miss from getting a break-even active rate?

$$1.03 \times ( 1 + r( t, \text{subs} ) ) = 1.05 \times 1.02$$

$$1.03 \times ( 1 + r( t, \text{subs} ) ) = 1.0710$$

$$1 + r( t, \text{subs} ) = 1.0398$$

$$r( t, \text{subs} ) = 0.0398 \quad (3.98\%)$$

As the bank lends at 3%, it fails to cover the technical spread and the passive rate. It needs 3.98% of implicit return to balance the break-even rate.

e) It goes without saying that it holds:

$$( 1 + r( t, \text{subs} ) )^{-1} = 0.9617 = 1 - 0.0383 = 1 + m$$

f) What does  $r(t, \text{subs})$  spells out?

It is the supplementary rate that we need to help the bank to cover the technical spread and passive rates. The underlying monetary resources would be drawn out of bank reserves, Treasury cash flows swapped over to the bank, outright losses or quasi-fiscal activities.

g) What about the spread?

$$[ 1 + \text{spread}( t ) ] =$$

$$= [ 1 + \text{technical spread} ( t ) ] \cdot [ 1 + r( t, \text{subs} ) ]^{-1}$$

$$[ 1 + \text{spread}( t ) ] =$$

$$= 1.02 \times ( 1 - 0.0383 ) = 0.9809$$

$$\text{spread}( t ) = - 0.0191 \quad ( - 1.91\%)$$

Hence, the spread is negative.

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But the story does not stop here. In fact, the example given above only brings to light a particular environment. If we wanted to get

access to a more accurate picture, we should take into account the following sources of subsidiarity that foster likely negative gaps<sup>23</sup>:

- upfront payments to other state-owned banks in financial difficulties;
- upfront payments to the Treasury to avoid the issuance of Treasury Bills;
- discretionary rediscounting to other state-owned institutions;
- writing off of bad debts for political reasons, either from the rotten accounts in the same bank or distant government agencies;
- the opening of new branches that become either unnecessary or redundant, on the grounds of political clientelism;
- granting contracts to suppliers with markups that could not successfully pass the control of accountability reported by a reputationally independent auditor;
- creative accounting to hide bribery, corruption, wheeling and dealing on behalf of the Board of Directors, their political sponsors, or the Management.

Now we can look for the common thread that runs through (6) to (8), which is given by the following relationship:

$$[ 1 + r( t, a, \text{actual} ) ] = [ 1 + r( t, p ) ] \cdot [ 1 + r( t, costs ) ] \cdot [ 1 + r( t, ben ) ] \cdot [ 1 + r( t, subs ) ]^{-1} \quad (10)$$

It's worth bringing this last relationship into sharper focus because it conveys remarkable features for the analysis, mainly through two lines of argument:

a) firstly, the issue about how risk and portfolios are related with subsidiarity;

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<sup>23</sup> The listing intends to describe some patterns of behavior, not the whole of them.

b) secondly, how quasi-fiscal activities impinge upon the subsidiarity principle.

#### **4.1 RISK, PORTFOLIOS AND SUBSIDIARITY**

Whereas in the private banking sector

$$r( t, a )$$

is expected to fulfill the restriction

$$r( t, a ) > r( t, p )$$

almost along all periods (otherwise the bank would not become profitable in a persistent fashion), this statement does not seem to follow when we deal with state-owned banks.

Still a more daunting fact, the risk attachable to the active and the liabilities portfolios should show that it holds<sup>24</sup>

$$\sigma [ P ( t ; \text{assets} ) ] > \sigma [ P ( t ; \text{liabilities} ) ]$$

for any sort of bank, this stemming from the fact that loans to customers are riskier than deposits.

However, a further constraint ought to be added when dealing with state-owned banks, on the grounds of three variables that become functional in these institutions:

- a) subsidiarity;
- b) corporate rent-seeking;
- c) soft-budget constraints from the management and directors<sup>25</sup>.

This last remark can be shaped by means of

$$\begin{aligned} \sigma [ P ( t ; \text{assets} ) , \text{state-owned bank} ] &= & (11) \\ \sigma [ P ( t ; \text{assets} ) , \text{private bank} ] &+ \Delta \end{aligned}$$

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<sup>24</sup> Background on this point in the technical Appendix at the end of this paper.

<sup>25</sup> On Corporate Rent-Seeking and Managerial Soft-Budget Constraint, see Apreda (2005).

where  $\Delta$  translates a functional dependence with subsidiarity on the one hand, and rent-seeking or soft-budget constraint on the other hand<sup>26</sup>.

#### **4.2 QUASI-FISCAL ACTIVITIES AND THE ACCOUNTANCY OF CONTINGENCIES**

As in many strands of life, even for the state-owned banks there is no free lunch at the end of the day. The subsidiarity principle sooner or later finds its counterbalance through the story that unfolds the report “of uses and sources of funds”.

In other words, for the bank to achieve its main objectives, it has to cope with fiscal and quasi-fiscal connections, which bring to light both discretionary and soft-budget constraints in the management of public funds. *Exhibits 4 and 5* portrays this issue according to the IMF’s <sup>27</sup>.

There is an impressive set of decisions that bring about costs of subsidiarity to the bank. Even worse, they stem from quasi-fiscal activities. For the sake of illustration, let us highlight some of them:

- subs1: subsidies to loans to the private sector;
- subs2: subsidies to governmental agencies;
- subs3: cost of subsidizing the Treasury;
- subs4: costs arising from fallen guarantees;
- subs5: costs arising from non-performing companies and their bail-outs;
- subs6: subsidies to portfolios managed by the bank (pension funds, trust funds, insurance companies);
- subs7: costs of covering transactions with foreign exchange risk;
- subs8: costs of keeping up domestic and foreign branches that are non-performing under private standards;

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<sup>26</sup> By and large, the actual frame of this relationship is to be empirically determined only.

<sup>27</sup> Further development of this perspective can be found in the IMF’s Manual on Fiscal Transparency.



subs9: costs of overpricing from suppliers.

**THE PRINCIPLE OF SUBSIDIARITY IS OFFSET  
BY QUASI-FISCAL ACTIVITIES AND THE  
ACCOUNTANCY OF CONTINGENCIES (1)**

***Quasi-fiscal activity:***

It may be conducted by the Central Bank, any public financial institution and non-financial public enterprise. In contrast to explicit fiscal activities, quasi-fiscal activities are often introduced by simple administrative decisions, **are not recorded in budgets or budget reporting, and typically escape legislative and public scrutiny. Because they lack transparency, quasi-fiscal activities can be self-perpetuating.**

***Types of quasi-fiscal activities:***

Administering lending rates, preferential rediscounting practices, poorly secured and sub-par loans, loans guarantees, credit ceilings, rescue operations, exchange rate guarantees, provision of noncommercial services (social services), paying above commercial prices to suppliers.

*Source: International Monetary Fund, 1999, Manual on Financial Transparency (downloadable from [www.imf.org/](http://www.imf.org/))*

*Exhibit 4 Quasi-fiscal activities and contingencies related to subsidiarity*

**CONCLUSIONS**

Four main statements can be drawn out of the paper:

- a) The principle of subsidiarity is relevant to addressing public governance issues.
- b) State-owned banks use and misuse the principle of subsidiarity.
- c) The negative spread provides a simple way to work out how far the principle of subsidiarity is misused by state-owned banks.

- d) Negative spreads uncover quasi-fiscal activities and a risk-return profile in state-owned banks that stand them out in contrast with private-owned banks.

**THE PRINCIPLE OF SUBSIDIARITY IS OFFSET  
BY QUASI-FISCAL ACTIVITIES AND THE  
ACCOUNTANCY OF CONTINGENCIES (2)**

***Prescription:***

Public finance institutions have often been set up to provide assistance of quasi-fiscal nature, such as a development bank providing loans to specific sectors at below-market rates. [ ... ]. **A basic requirement of fiscal transparency is that the annual report of public financial institutions should indicate the noncommercial services that the government requires them to provide.**

***Contingent liabilities:***

They are costs that the government or state-owned bank will have to pay if a particular event takes place eventually. They are not yet recognized as liabilities. For instance, government guarantees, indemnities, uncalled capital, legal actions.

*Source: International Monetary Fund, 1999, Manual on Financial Transparency (downloadable from [www.imf.org/](http://www.imf.org/) )*

*Exhibit 5 Quasi-fiscal activities and contingencies*

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## **TECHNICAL APPENDIX <sup>28</sup>**

Let us assume that the valuation horizon is

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<sup>28</sup> A comprehensive expansion of portfolio theory can be found in Apreda (2005a).

$$H = [t; T]$$

and the valuation date is  $t$ . We proceed to set up two distinctive portfolios, one arising from assets and the other from liabilities.

## 1. ASSETS PORTFOLIO

At date  $t$ , the bank exhibits several types of assets that can be listed as

$$A(1), A(2), \dots, A(N)$$

For instance, loans to households, small- and medium-sized companies in the private sector, government agencies (at the Federal, state or municipal levels), big companies.

On the other hand, it has financial assets issued by the government, other banks, and private companies. These assets can be regarded as investments the bank holds to take advantage of free-cash flows.

If we denote by  $w(j)$  the monetary value of asset  $j$  at date  $t$ , and by  $w$  the whole monetary value of all assets at date  $t$ , then the bank sets up a portfolio of assets given by

$$P(t; \text{assets}) = \langle x(1); x(2); x(3); \dots; x(N) \rangle$$

where

$$x(j) = w(j) / w$$

The expected return from this portfolio can be worked out with the tools of Portfolio Theory. Hence, we will denote this return as

$$r [ P(t; \text{assets}) ] = r(t; a)$$

and the expected return will follow from the expression<sup>29</sup>

$$r(t; a) = \sum x(j) \cdot r(t; A(j))$$

As regard the risk of this portfolio, we profit from the well-known expression<sup>30</sup>:

<sup>29</sup> Index  $j$  runs along all values from 1 to  $N$ .

<sup>30</sup> Indexes  $j$  and  $k$  run along all values from 1 to  $N$ .  $\sigma(j; k)$  means covariance between the rate of asset  $j$  and the rate of asset  $k$ .

$$\sigma [ P ( t ; \text{assets} ) ] = \sum x( j ) . x ( k ) . \sigma ( j ; k )$$

This is not a so-well diversified portfolio. Indeed, most of its components are positively correlated with each other, on the grounds of credit-risk features which constrains the total risk of the portfolio from being curbed eventually.

## 2. LIABILITIES PORTFOLIO

By the same token, we reach the portfolio

$$P( t ; \text{liabilities} ) = \langle y(1) ; y(2) ; y(3) ; \dots ; y(N) \rangle$$

that consists of all deposits and other loans granted to the bank, that we can list as

$$L(1), L(2), \dots , L(M)$$

From the side of expected returns of this portfolio (actually they are rates of financial cost for the bank), we finally get:

$$r [ P ( t ; \text{liabilities} ) ] = r ( t ; p )$$

where

$$r ( t ; p ) = \sum y(j) . r(t ; L(j) )$$

Last of all, the risk of this portfolio can be assessed by means of:

$$\sigma [ P ( t ; \text{liabilities} ) ] = \sum y( j ) . y ( k ) . \sigma ( j ; k )$$

It holds here the same remark we made on the side of the assets portfolio risk: returns for investors in the liabilities portfolio are correlated by the temporal structure of rates of return. Hence total risk cannot be diversified too much. Besides, this total risk usually keeps itself in a strip of values not so high as in the assets portfolio, on the grounds of the passive rates of interest behavior:

- a) the safer the bank, the lesser the rates (state-owned banks "are too big to fall");
- b) there is an implicit (and sometimes explicit) deposit insurance when investors deal with state-owned banks.