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RESOURCE ALLOCATION MECHANISMS IN TERTIARY EDUCATION: A TYPOLOGY AND AN ASSESSMENT

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Abstract

This paper examines the experience of a number of countries around the world over the past several decades, with both traditional and more innovative allocation mechanisms, with a view to providing lessons that can help policy makers in developing and transition countries to formulate strategies for increasing the effectiveness of their resource mobilization and allocation mechanisms. For this purpose, the paper starts by developing a typology that describes traditional and innovative approaches to resource allocation that are being used or considered in various countries. This typology includes both approaches that fund institutions as well as those that fund students. The second section of the paper assesses how well these various allocation mechanisms meet important policy objectives such as expanded access and improved equity, increased internal efficiency and cost containment, and output measures such as quality and relevance.

INTRODUCTION

In recent decades, countries around the world have increasingly sought innovative solutions to the challenges they face in financing tertiary education.¹ One of the principal challenges is that the demand for education beyond the secondary level in most countries around the world is growing far faster than the ability or willingness of governments to provide public resources that are adequate to meet this demand.

The reasons for this rapid increase in demand are many. In the first place, the economic value of attaining a tertiary education in virtually all countries, as measured by rates of return or other measures, is growing faster than the economic returns accruing to those who receive a secondary education or less. Secondly, in many cultures there are strong social pressures on students to move beyond the secondary level of education for non-monetary reasons such as greater social standing and prestige in the community – sometimes even better marriage prospects for girls. Thirdly, many countries are attempting to provide greater relevance in their tertiary education curricula as governments and

tertiary education institutions de-emphasize certain fields with low levels of labour force demand, such as public administration and education, in favour of fields more relevant to emerging labour force needs such as information technology, engineering and science.

Demands on public resources are typically intense as governments around the world face challenges across the board in providing better healthcare, housing, transportation and agriculture, as well as the full range of education. In this context, tertiary education is often far from the highest priority for public funding in both industrial and developing countries.

Countries and institutions around the world have responded to this mismatch between available public resources and the growing demand for tertiary education in several generic ways. The most frequent response has been to mobilize more resources principally by introducing or raising tuition fees as a means of increasing cost-sharing. Another related response has been to seek additional private resources through the commercialization of research and other private uses of institutional facilities and staff. A third – perhaps less commonly found – response has been an increased reliance on bonds and other forms of creative financing that allow for greater public/private partnerships in providing services related to tertiary education activities.

This paper focuses on a related trend, the development of a variety of innovative allocation mechanisms that allow both public and private funds to go farther in meeting the challenges that tertiary education systems face around the world. These innovative mechanisms cover a broad range of approaches, including:

- The evolution of funding methodologies for recurrent expenses and capital investment in a number of countries, from the more traditional negotiations of budgets between governments and institutions to increasingly sophisticated funding formulas that aim to insulate allocation decisions from excessive political pressures and encourage desired institutional behaviours.

- The creation of a ‘demand-side’ voucher system, as has recently happened in Colorado, in which institutional operating subsidies will be distributed through a voucher given to all undergraduates, or the consideration of possibly using voucher-like incentives by allocating formula funds to institutions based on student characteristics, an approach which might be referred to as ‘supply-side vouchers’.
- The establishment of competitive funds in at least a dozen industrial and developing countries as a means for financing various activities not well suited to more traditional formulas including encouraging innovation, improving academic quality, and strengthening institutional management capacity.
- A variety of performance-based funding mechanisms including setting aside a portion of funding to be distributed to institutions on the basis of a series of performance measures, performance contracts negotiated between governments and institutions, and financing mechanisms that directly pay for results, either as part of the basic funding formula or as a separate set of payments of institutions.
- The provision of student aid in the form of vouchers as a means of stimulating greater competition among institutions for students with high financial need and/or academic merit as an alternative to more traditional government-funded but institutionally administered student aid programmes.
- The increasing use of tax benefits in a number of countries to help students and their families offset the expense of tuition fees and living costs associated with attendance in tertiary education.²
- The development of various income-contingent student loan models in a half dozen countries over the past two decades in which repayment levels are tied to the income of student borrowers after they complete their education.
- A series of creative financing arrangements by which the initial funding of mortgage-type student loans is leveraged to provide higher capital levels through modern financing techniques.

Reviewing the scope and potential impact of these various innovative resource allocation mechanisms is the primary purpose of this paper, as an attempt to explore the most effective ways to improve the equity and efficiency of how public funds are allocated to tertiary education institutions and students.

As the list above indicates, the search for innovative mechanisms applies to both the funding of institutions and the funding of students. In the case of institutional support, the allocation mechanisms apply to the funding

of instruction, operations, and capital investment as well as university-based research. In terms of the support of students, the mechanisms include the provision of grants and scholarships, the use of tax benefits to offset the current expenses of tuition fees and living costs, and the continuing growing reliance on student loans in many countries around the world.

To address the issue of innovative allocation mechanisms, the paper starts by developing a typology that describes both traditional and innovative approaches to resource allocation that are being used or considered in various countries. This typology includes both approaches that fund institutions as well as those that fund students. The second section of the paper assesses how well these various allocation mechanisms meet important policy objectives such as expanded access and improved equity, increased internal efficiency and cost containment, and output measures such as quality and relevance. The paper concludes by proposing some lessons drawn from international experience over time with allocation mechanisms.

TYPOLOGY OF ALLOCATION MECHANISMS

This section describes two general types of allocation mechanisms for tertiary education that are used in countries around the world: (1) those that make payments directly to institutions for the support of recurrent expenses, capital investments, specific purposes, and research, and (2) those that indirectly support institutions through vouchers given to the students or that provide support to students or their families in the form of scholarships, tax benefits, and loans to defray the cost of tuition fees and the costs of housing, food, and other living expenses.

The chart presented as Table I.4.2 summarizes the allocation mechanisms that are described in this section. It also indicates examples of countries and subnational units such as states or provinces where these mechanisms are in use, being implemented, or have been proposed in a serious way. An effort is made to indicate which of these mechanisms are more traditional and which qualify as being more reform-oriented or innovative. A more detailed description of these mechanisms and where they are now being used or contemplated is provided below.

I. DIRECT FUNDING OF INSTITUTIONS

Governments typically provide public support of universities for two principal purposes: (1) to finance the cost of instruction; and (2) to pay for the conduct of

university-based research. In both cases, this involves financing recurrent and investment expenses.

A – FUNDING INSTRUCTION, OPERATIONS AND INVESTMENT

Countries around the world use a number of different approaches to help institutions pay for their expenses for instruction, operations, and capital investment. These payments typically apply only to public institutions, although in a few countries such as New Zealand and Chile private institutions are also eligible for public forms of support. Countries use variations of the following three allocation mechanisms to support these basic activities:

- negotiated budgets
- funding formulas
- categorical funds

NEGOTIATED BUDGETS

Negotiations between government and institutional officials are the most traditional way in which the operations and investment plans of public institutions are funded. The levels of funding decided through the negotiations process, usually based on historical trends, are then typically distributed to institutions in one of the two following ways:

- Line-item budgets.* Negotiated budgets most often are implemented through line-item allocations to institutions. These line items provide relatively rigid restrictions on how institutions can spend the public funds they receive from governments or other public bodies.
- Block grants.* Providing a single block grant to each institution is another way that negotiated budgets can be implemented. Block grants tend to give institutions more flexibility and autonomy than line-item arrangements in determining how public funds are to be spent.

FORMULA FUNDING

Many countries have over time moved away from negotiated budgets and instead use some form of formula to allocate funds to institutions for their recurrent expenses. These formulas vary on the basis of what factors are used in their development and what type of organization develops it. The factors used in determining funding formulas include:

- Inputs.* The most primitive type of formula is based on inputs such as the number of staff or staff salaries at each institution, and other more sophisticated measures such as number of professors with a PhD. Initially the most typical type of formula, input-based

formulas are still used in some cases, especially in Eastern Europe. It is also sometimes the case that input-based formulas may be combined with formulas based on the number of students enrolled. Poland, for example, has an allocation system which is based on a combination of the number of students enrolled and the number of full-time teaching staff with PhDs.

- Enrolments and costs per student.* Most funding formulas now are based on the number of students enrolled at a point in time, multiplied by a cost per student calculation. The number of students may be calculated on a prospective or retrospective (actual) basis. The cost figures are typically calculated retrospectively based on one of several figures, as shown below:

- *Actual costs per student.* The most traditional form of formula funding occurs when allocations to institutions are based on actual costs per student as reported by the institution. Most states in the USA use actual costs per student in their funding formulas and many countries also seek to use actual costs in calculating institutional allocations.
- *Average costs per student.* In this approach, which constitutes an alternative to using actual costs per student at each institution, allocations to institutions are based on system-wide average costs per student, usually calculated from aggregate statistics on spending and enrolments.
- *Normative costs per student.* The most innovative way of calculating costs per student in funding formulas is to base the calculation on normative costs. Under this approach, optimal staff/student ratios and other standardized efficiency measures are used to calculate what costs per student ought to be, rather than what they are on an actual or average basis. Thus, formulas using normative costs have the potential for improving efficiency by tying how much institutions will be paid for their expenses to a more efficiency-based standard. Among industrial countries, normative costs have become part of the funding formula calculation in England. Normative costs have recently been introduced into funding formulas in a number of developing and transition countries, for example in Bulgaria.
- *Benchmarking.* One form of normative costs used in some countries is one in which the cost figures and structure are pegged to a ‘benchmark’ institution or set of institutions. A number of states in the USA, for example, use the cost structures of

comparable institutions in other states to help establish the costs per student in their funding formulas.

- *Chargeback arrangements.* When funding formulas are based on prospective estimates of student numbers and/or costs, chargeback arrangements allow for initial allocations to be reviewed mid-year or retrospectively to reflect reality, and funding is then adjusted. Most countries that use formulas which are based on prospective numbers of students now recognize that they can use charge-backs to correct for incorrect projections of numbers of student or costs per student. This kind of mid-course correction substantially reduces the amount of ‘gaming’ that is likely to occur when institutional officials are asked to estimate figures for the upcoming year rather than reporting actual enrolments or spending per student in the previous year.
- c. *Priority-based funding.* One of the more innovative formula approaches now being used in selected countries is one in which adjustments are made to reflect national and regional priorities such as critical labour force needs. This approach might also be referred to as ‘funding for relevance’ since it tends to lead to the fields of greatest relevance receiving the highest level of funds. The way in which priority-based funding typically works is that the price paid for a seat by the government or the funding body is higher than the price paid for other seats in lower priority fields of study. In some cases, the full cost per student or even more might be paid to institutions for seats determined to be in high priority fields of study. Or payments might be increased for those institutions that are deemed to be of higher priority than other institutions. For example, institutions in rural areas might be paid more for their seats than more urban institutions if there is a desire to ensure a more dispersed distribution of students. The funding system used in England by the Higher Education Funding Council for teaching and research would be one example of priority-based funding.
- d. *Performance-based formula components.* Another non-traditional funding approach occurs when performance measures are built into funding formulas, for example by paying institutions on the basis of the number of year-end completers or degree recipients rather than the number of students enrolled. This approach is discussed in greater detail under the section on performance-based funding.

- e. *Student-based allocations.* An alternative approach for supporting institutions is that public funds could be distributed based primarily on the characteristics of the students who enrol rather than the more traditional method of funding based on institutional characteristics such as costs per student. This kind of formula could be referred to as ‘supply-side vouchers’ as funds would be distributed to institutions based on which kinds of students enrol at different institutions.

There are relatively few examples of countries in which supply-side vouchers have been implemented or even seriously proposed. England pays a premium in its funding formula for students from postal codes with high concentrations of families with low socioeconomic status. Jordan and the Palestinian National Authority have proposed or are considering allocation schemes based on student characteristics. These funds in turn might then be used as grants or loans for targeted groups of students, thereby improving the equity of the tertiary education system.

CATEGORICAL FUNDS

One of the more traditional means of allocating funds to institutions, categorical funds usually involve the government designating a particular institution or group of institutions to receive funds for a specific purpose. Most typically, categorical funds are established to correct or ameliorate real or perceived past underfunding for a group of institutions most often characterized by their geographic location or the types of students they serve. For example, institutions located in rural areas might be eligible to receive funds to expand opportunities for distance learning. Or institutions that serve large numbers of chronically underserved students might be eligible for grants to upgrade their facilities or equipment.

The United States and South Africa are examples of countries that have used categorical funds for this latter purpose. In the USA, the so-called Title III Program provides funds for institutions that serve high proportions of minority students. In South Africa, categorical funds for libraries, academic facilities, and equipment needs are set aside for predominantly black institutions.

PERFORMANCE-BASED FUNDING

Performance-based funding represents one of the principal innovations in tertiary education allocation mechanisms in recent decades. Tertiary education institutions and systems in most countries typically are funded through negotiated budgets or funding formulas that focus on inputs or the number of students enrolled. By linking the funding to some measures of outputs or outcomes rather than inputs or the number of students, per-

formance funding represents a real break from traditional funding approaches.

Performance-based allocation mechanisms differ from other allocation approaches in the following way:

- They attempt to reward institutions for actual rather than promised performance.
- They use performance indicators that reflect public policy objectives rather than institutional needs.
- They include incentives for institutional improvement, not just maintaining status quo.

Four types of allocation mechanisms might be considered performance-based funding:

- Performance set-asides. A portion of public funding for tertiary education is set aside to pay on the basis of various performance measures.
- Performance contracts. Governments enter into regulatory agreements with institutions to set mutual performance-based objectives.
- Payments for results. Output or outcome measures are used to determine all or a portion of the funding formula: for example, tertiary education institutions are paid for the number of students they graduate, sometimes with higher prices for graduates in certain fields of study or with specific skills.
- Competitive funds, which support peer-reviewed proposals designed to achieve institutional improvement objectives.

Table I.4.1 indicates how these performance-based mechanisms differ from more traditional allocation approaches.

Traditional	Innovative
Negotiated budgets. Allocations of public funds are negotiated between government agencies and institutions	Performance contracts. Governments enter into regulatory agreements with institutions to set mutual performance-based objectives
Categorical funds. Categories of institutions designated as eligible for funds for specific purposes including facilities, equipment, and programmes	Performance set-asides. A portion of public funding for tertiary education is set aside to pay on the basis of various performance measures Competitive funds. Tertiary education institutions compete on the basis of peer-reviewed project proposals against a set of objectives
Staff-based or enrolment-based funding formulas	Payments for results. Output or outcome measures are used to determine all or a portion of funding formula, or institutions are paid for the number of students they graduate in certain fields of study or with specific skills

- a. *Performance contracts.* Performance contracts typically are regulatory agreements more than legally binding documents and can take a number of forms. Performance-based evaluation criteria are negotiated between governments or buffer bodies and institutions. The agreements may be with entire systems of institutions or individual institutions. A portion of overall funding may be based on whether institutions meet the requirements in the contracts. The agreements can be prospectively funded or reviewed and acted upon retrospectively. The contracts are more often punitive than incentives as failure to meet goals may result in reduced funding.

Examples of performance contracts include:

- France, which since 1989 has devoted one third to half of the recurrent budget to four-year performance contracts.
- Finland, which has contracts that set out general goals for the system as well as specific goals for each institution.
- Colorado (USA), which as part of its new voucher scheme is setting up performance contracts that would penalize institutions that fail to meet standards as part of a broader reform effort that includes demand-side vouchers and fees for services.
- Virginia (USA), which is developing contracts with its public universities, setting up increases in autonomy with different levels of reduced funding from the state. The Virginia example is interesting as it evolved from a request from the three best universities to exchange a reduction in public funding for greater autonomy in how public funds are spent. The final version applied to all public institutions in the state.

- b. *Performance set-asides.* In countries and states that use performance set-asides, a portion of funding for recurrent expenses is set aside to be allocated on the basis of a number of performance measures. The set-aside varies from less than 5 per cent to in some cases nearly 100 per cent of recurrent funding. The number of indicators varies from single to multiple (as many as 12 or more). The performance measures are typically decided through negotiations between a government agency or buffer body and institutional officials. The allocation of funds is not done on a formula basis.

In the USA more than a dozen states have used performance set-asides over the past decade or more. These states include:

- Tennessee, which set aside 6 per cent of funds based on multiple criteria – four standards and

ten indicators – with each of these given a certain weight. Institutions compete against their own record.

- South Carolina, which set aside most of its recurrent budget to performance funding, and allocation decisions were based on a large number of performance criteria. The South Carolina experience is instructive in that it represents an extreme in performance-based funding, as it decided to allocate almost its entire recurrent budget on the basis of performance measures. The general evaluation of the South Carolina experience with performance-based funding is that it failed in large part because there were too many indicators and standards and thus the signals provided to institutions were mixed and confusing.

South Africa has for a number of years set aside most of its core budget for teaching, research and other services based on multiple performance measures. This performance funding is supplemented by a competitive fund.

- c. *Payments for results.* There are two ways in which some countries pay for results. One approach uses some set of performance measures to calculate institutional eligibility for all or part of their formula funding of recurrent expenses. The second occurs when governments or private entities agree to pay institutions for each student enrolled or degree recipient in certain fields of study or with specific skills.

Examples of countries that have built performance into their funding formulas include:

- England, where the recurrent expenses formula is paid on the basis of the number of students who complete each year of study.
- Denmark, which has a ‘taximeter model’ in which 30 to 50 per cent of recurrent funds are paid for each student who passes exams.
- The Netherlands, where half of recurrent funding is based on the number of degrees awarded.

Colorado (USA) is about to establish a fee for service for post-baccalaureate study in which institutions would be paid for each graduate student they enrol to complement its demand-side vouchers scheme for undergraduates. Many US and Canadian community colleges contract with private firms to train employees.

Limited experience with performance-based funding thus far suggests programme design issues are important in ensuring successful implementation. Deciding which kind of performance-based funding to use may be the most important decision that will

determine success. Issues of programme design that policy makers should consider include:

- What proportion of public funds should be based on outputs or outcomes rather than on more traditional measures such as numbers of staff or students, or costs per student?
- How many and which measures should be used to allocate performance-based funding?
- Should poor-performing institutions be punished or encouraged to do better?

- d. *Competitive funds.* One of the more prominent innovations in tertiary education finance over the past several decades, competitive funds represent an alternative to the more traditional approach of establishing categorical funds. These competitive funds are usually funded on a project-by-project basis, typically for the purposes of improving quality and relevance, promoting innovation, and fostering better management – objectives that are difficult to achieve through funding formulas or categorical funds. Possibly the first competitive fund was the Fund for the Improvement of Postsecondary Education (FIPSE) in the USA in 1972. Argentina, Bolivia, Bulgaria, Chile, Ghana, Hungary, Indonesia, Mozambique and Sri Lanka are examples of countries that have established competitive funds in the past decade or so, often with financial support from the World Bank.

B – FUNDING OF RESEARCH

A number of arrangements exist around the world for the funding of university-based research:

1. *Instruction and research funded together.* Perhaps the most common approach for funding research – some of the funds that governments provide to institutions are used to pay for research rather than for instruction and operations. Most states in the USA and most countries around the globe fund research together with instruction as part of their negotiated budget or funding formula.
2. *Block grant funding for research.* Institutions receive a block grant allocation specifically for research activities but not differentiated or specified by project; institutions or faculties then set priorities for the expenditure of funds. The size and purpose of the block grant may be based on:
 - *Specific research proposals.* Funding levels largely determined by evaluation of specific project proposals although funding would be provided as a block grant.
 - *Institution demonstrated capacity.* The amount of

funding for each university is based on an assessment of collective faculty capacity to conduct research innovatively – the ‘blue skies’ approach. The English research funding system is an example of this way of allocating public funds for research. A primary means for determining the allocation is the Research Assessment Exercise (RAE), conducted every 3 to 5 years, which provides a measure of the quality of the research produced at different universities based on a series of indicators.

- *Research centres of excellence.* Another way to allocate research funds utilized in a number of countries is to fund centres of research excellence at particular institutions. These centres are often specialized in certain fields or endeavours. A number of states in the USA have adopted this approach as a way to supplement the research funding embedded in the core funding formula in a more specialized way. New Zealand and the Netherlands are examples of OECD countries that fund their academic research through centres for excellence. The Millennium Institutes recently established in Chile and Venezuela with World Bank funding are also examples of research centres of excellence.
3. *Project funding.* Another model of allocating funds for research occurs when faculty or other staff receive funding for research for proposed projects, usually based on peer reviews of proposals. The federal system of research in the USA is a prime example of peer-reviewed research proposals. In some cases, the research funds are provided on a matching grant basis, whereby governments provide funds for specific purposes if matched by institutional or private sources. This matching grant approach is used in Singapore, for instance.

II. INDIRECT FUNDING AND SUPPORT PROVIDED TO STUDENTS AND THEIR FAMILIES

While the large share of public support of tertiary education in most countries is provided directly to institutions, most countries provide some of the funds for tertiary education to students and their families. One innovative allocation mechanism is demand-side vouchers, which in a few cases are being used to finance the recurrent expenses of institutions indirectly through vouchers provided to the students. In addition, a substantial amount of public funds are allocated directly to students and/or their families in many countries in the more traditional form of grants and schol-

arships, tax-based benefits for current expenses and savings for the future, and a variety of student loan models. In a few countries, support is provided to students in the form of grants/loans in which the aid begins in one form, and in the course of time is transformed into the other.

A – ‘DEMAND-SIDE’ VOUCHERS

Around the world, voucher debates are much more common in basic education and some other government functions such as public support of housing than as a means of paying for tertiary education. However, in all public functions the purpose of adopting vouchers is the same: to promote greater competition among providers of a good or service by providing public support indirectly through the consumers rather than directly to providers.

A number of definitions could be used to describe vouchers in tertiary education. A narrow definition would include:

- Students and/or families receive a coupon (voucher) which represents a certain amount of money to be used exclusively for tertiary education related expenses.
- Students take the voucher to the institution in which they enrol, and the institution then redeems the value of the coupon from the government.

A broader definition of vouchers would include any policy in which public funds follow the student, not the institution. This would include any enrolment-based funding formula. For the purposes of this paper, the narrower definition will apply. Under this narrow definition, vouchers could be utilized to achieve objectives in tertiary education in two key ways:

- First as a means of defraying all or a portion of the recurrent expenses of institutions, particularly public institutions which by definition rely primarily on public funding to finance their operations. These might be referred to as demand-side vouchers as they serve as an alternative to more traditional methods of paying institutions for their recurrent expenses.
- Second, vouchers can be used as a means of providing financial aid to students and their families. We will refer to these as student aid vouchers and discuss them in the section on allocation mechanisms that support students and their families.

In developing both kinds of vouchers for tertiary education, policy makers must consider and resolve a number of key issues:

- Do vouchers cover the full cost of education, or will tuition fees be used to pay some of the costs?
- Do vouchers cover the full public cost of tertiary education, or is there a mix between supply-side and demand-side approaches?

- Are vouchers available to all students, or only to specific groups of students?
- Are the vouchers the same amount for all students, or do students from disadvantaged families receive more?
- Are students at private institutions eligible to use the vouchers, or are they restricted to those at public institutions?
- How are seats allocated to voucher holders at institutions that are oversubscribed?

Demand-side vouchers are so innovative that there are few examples of countries that use them to pay for recurrent expenses. The most prominent example can be found in Colorado, which is in the process of implementing a voucher scheme to pay for a portion of the recurrent expenses of undergraduates. Under the Colorado plan, all undergraduates at public and private institutions in Colorado are scheduled to receive a uniform voucher that covers a portion of the average cost per student at Colorado public institutions. Students will then submit the voucher to the institution they choose to attend to be used to defray an equivalent amount of their tuition fees and related expenses. Students and their families will then be responsible for paying the tuition fees over and above the amount of the voucher.

B – GOVERNMENT SCHOLARSHIPS

Most countries provide non-repayable aid to their students, but how this aid is provided varies on a number of dimensions, including how the programmes are administered, which students are eligible, and which expenses are covered:

PROGRAMME ADMINISTRATION

There are two basic ways in which grants and scholarships can be provided to students. The traditional way in most countries (France and most francophone countries being the exception) is through institutions making the basic decisions on who is eligible and how much they receive, often with guidance from government rules and regulations. The degree of government regulatory intervention tends to be proportional to how the grants and scholarships are financed. If institutions are using their own funds to provide discounts, the role of government in determining eligibility is typically small unless the government is providing matching funds or is the primary source of institutional funds in the case of public institutions. In the more typical case of the government providing the bulk of funding for scholarships and grants, then the degree of government regulation generally increases.

The more innovative way in which grants and scholarships may be provided is in the form of student aid

vouchers. Under this approach, determination of eligibility is made in a more centralized fashion and students receive vouchers or chits from the government or its agents that they then take with them to the institution in which they enrol. Typically, the institutions collect the vouchers and then redeem them with the government.

a. *Examples of countries where grants and scholarships are administered by institutions.* Public funds are provided to institutions that are then responsible for distributing funds to students, often according to rules set forth by government. Hungary, Lithuania, Poland, Portugal (merit-based programme) are a few examples of the many countries that use institutionally administered scholarship programmes.

Governments may require institutions to match public funds by providing waivers or discounts to selected students. In the USA, for example, the Supplemental Education Opportunity Grant (SEOG) programme has regularly expected participating institutions to match a portion of the funds provided by the federal government.

b. *Student aid vouchers.* Another way in which vouchers can be used to fund tertiary education is as a means of providing financial aid to students and families. In this regard, vouchers can be contrasted with more centralized student aid programmes in which students apply directly to the government once enrolled in an institution, or decentralized programmes that use institutions to administer funds, usually within government guidelines. Examples of countries in which student aid is provided as vouchers include:

- The US, where since the early 1970s, in the Pell Grant Program, students receive need-based vouchers on the basis of centrally calculated financial assessment. Since the end of the Second World War, the GI Bill has provided student aid to veterans on the basis of their military service.
- France, where students at public and state private institutions are eligible for social scholarships based on students' and parents' income. Similar voucher systems are in use in many African francophone countries.
- Denmark, where all university students are eligible to receive up to 70 monthly vouchers to cover living expenses related to tertiary education attendance. An interesting feature is that students can save their vouchers early in their tertiary careers and 'double up' near graduation.

C – TAX BENEFITS

An increasing number of countries are providing tax-related benefits to families or students related to tertiary education activities. The tax benefit may be in the form of a credit against tax or a deduction from income for either current expenses or savings for future expenses. In this paper on allocation mechanisms, we only examine those tax benefits related to current tertiary expenses.

1. *Current tuition fees.* Students and/or families receive tax benefits to offset all or a portion of the tuition fees. Ireland and the USA are examples of countries that use the tax system to provide tax benefits.
2. *Family allowances.* Provided through the tax system, these tax provisions help parents offset the expenses of supporting children while they are enrolled in tertiary education. Austria, Belgium, the Czech Republic, France, Germany, Latvia, the Netherlands and Slovenia are examples of the growing number of countries providing tax benefits in the form of family allowances for students attending tertiary education.

D – STUDENT LOAN MODELS

A number of different models exist in the more than 50 countries around the world in which student loan programmes have been developed.³ A key difference in these student loan models is the type of repayment schedule employed. Approaches also vary according to the source of capital, types of expenses covered, and eligibility and level of subsidy:

MORTGAGE-TYPE LOANS

Mortgage-type loans are repaid on an amortized (equal) basis over a fixed period of time. These are the most traditional type of student loan repayment.

- a. *Source of capital.* Mortgage-type loans may be funded from:
 1. *Private sources.* Commercial banks, and other private sources of capital, fund most mortgage-type student loan programmes around the world, including: Canada, Chile, China (commercial), South Korea and the USA (guaranteed).
 2. *Public sources.* One recent innovative trend is for countries to shift from private to public funding of mortgage-type loans. Examples of countries that use public sources of funds to pay for mortgage type loans are Canada, China (subsidized programme), Hong Kong, Thailand and the USA (direct student loan programme).
 3. *Creative financing.* A number of creative financing mechanisms have been considered to facili-

tate the provision and expansion of mortgage-type student loans, including:

- Secondary markets in which existing student loans are sold or used as collateral to create new loan capital: the USA (Sallie Mae and other entities), Colombia.
- ‘Securitization’ – Bonds are secured by the projected flow of funds from student loan repayments. The USA and Chile are examples of countries that have employed securitization techniques in financing student loans.

- b. *Expenses covered.* Mortgage-type student loan programmes also vary in terms of which expenses they cover. Examples of countries that have these different arrangements include:
 1. Loans for tuition fees only: Lithuania, South Korea (all programmes), Japan, the Philippines (all programmes).
 2. Loans primarily for living expenses only: Denmark, Finland, Germany, Hong Kong (subsidized), Lithuania, Poland, Slovakia, England, Scotland.
 3. Loans for both tuition fees and living expenses: Canada, China, Estonia, Hong Kong (non-subsidized), Malta, Netherlands, Thailand, USA (all student loan programmes).
- c. *Eligibility and level of subsidy.* Mortgage-type loans also vary widely in terms of whether they are means-tested and the level of subsidy entailed.
 1. Means-tested and highly subsidized. Eligibility for subsidies is means-tested and interest subsidies and default costs exceed 10 per cent of loan value. Examples of means-tested loan programmes that carry a high level of subsidy include China (subsidized), the Philippines (study now pay later), Thailand and the USA (subsidized).
 2. Little or no subsidy. In loan programmes in which eligibility is broad-based, subsidies are less than 10 per cent of loan value. Examples are China (commercial) and the USA (non-subsidized).
- d. *Private sector eligibility.* Countries in which public sector and private sector students are both eligible to borrow include South Korea, the Philippines, Thailand, Palestine and the USA (all programmes).
- e. *Graduated and extended repayment plans.* Fixed amortized repayments are graduated (smaller earlier payments and larger later payments) and/or extended

beyond the normal fixed term. The US programme is a prime example of this approach.

INCOME CONTINGENT REPAYMENTS

One of the more innovative financing approaches for structuring student loans consists in calculating borrower repayments as a function of the amount borrowed and a percentage of the income of graduates once they complete their education.

a. Mandatory income contingent repayment. The most common form of income contingent repayment occurs when all borrowers repay based on their income after graduation, although even under mandatory arrangements borrowers may still have an option to prepay without income contingency. Within the framework of mandatory income contingency, there are two principal options related to who pays the initial fees:

1. *Fees initially paid by students and families.* This approach combines a traditional fee structure in which students and/or their parents initially pay the fees and then borrow to pay all or a portion of those fees and, possibly, related living expenses. Repayment on those loans is based on the income of the student borrowers once they complete their education. South Africa, Sweden, New Zealand and Hungary are examples of countries that have introduced this kind of repayment although the particulars of how repayment is managed vary in each of these countries.

2. *Fees initially paid by the government.* The more innovative method for introducing income contingent repayment for student loans is for the government to pay the initial fees for participating students and for student 'borrowers' then to repay as a percentage of their income and amount borrowed once they graduate and enter the tax system. This form of mandatory income contingency can include some borrowers being exempted because their incomes fall below a given standard. Australia introduced the earliest example of this kind of income contingent approach in 1989 through its Higher Education Contribution Scheme (HECS). England and Thailand plan to introduce similar schemes in 2006.

b. Optional income contingent repayment. An alternative to mandatory income contingent repayment is that borrowers with mortgage-type repayment obligations are provided the option of repaying on the basis of their income after graduation. In the USA borrowers

since 1994 have been provided with an option to repay on an income contingent basis. Usage of this option for income contingency has been low, limited largely to borrowers who have defaulted on their student loans and have been moved into income contingency. Chile is another example of a country in which student loan defaulters are moved into the tax system to enhance their repayment levels.

c. Graduate tax. Students pay for their education as a percentage of their income through taxes paid throughout their working life once they complete their education. Income contingency differs from graduate tax in that repayment is not required for life-time or until retirement, just until the loan has been fully repaid. No country really has a graduate tax at this time.

d. Human capital contracts. Student participants agree to repay a portion of their incomes to investors who have an 'equity stake' in the students' postgraduation income. Under some versions, investors would be able to depreciate the economic value of the students in their taxes. These systems are mostly theoretical, but there is a pilot scheme in Chile and lobbying efforts to change the tax laws in the USA to allow for depreciation.

INTERNALLY FINANCED STUDENT LOANS

A less utilized way to structure student loans, by which institutions use the fees paid by some students to finance loans that help other students pay their fees. These loans entail little or no government involvement although they can be financed by private funding that allows institutions to finance their current operations until loans are repaid. They also allow more innovative repayments including:

a. Deferred payment plans. Fee payments spread out over a period of time that begins while the borrower is still in school. This system can be found in the Philippines.

b. Privately financed and serviced. Institutions sell loans or contract with private servicers when borrowers begin to repay.

GRANT/LOAN SCHEMES

In some countries some of the student financial aid is provided partially as scholarships and partially as loans. The Basic Grant in the Netherlands is one example of a Scholarship/Loan programme. All regular full-time students are eligible for a basic scholarship, which varies with the stu-

dent's living circumstances; students living with their parents are eligible for a smaller stipend than those living away from home. For all students, the award is initially a loan, but if students demonstrate satisfactory academic progress the loan becomes a scholarship. Norway and Sweden are other countries that have introduced scholarship/loan structures.

LOAN FORGIVENESS

Another form of scholarship/loan schemes occurs when some or all of what borrowers owe on their student loans is forgiven or waived if they accept certain types of employment after they graduate. An example of loan forgiveness is found in the USA, which for several decades has forgiven all or a portion of loan repayments for teachers or doctors who agree to practise in underserved geographic areas such as rural settings or inner cities for an extended period of time. Typically, the loan forgiveness is in the form of excusing a portion of loan repayment for each year of service, often until the full interest and principal is forgiven.

ASSESSING THE EFFECTIVENESS OF INNOVATIVE ALLOCATION MECHANISMS

The underlying reason for countries to contemplate and implement reforms in how they allocate funds for tertiary education is to advance the goals of public policy. The following discussion, summarized in the matrix presented as Table I.4.3, attempts to indicate which allocation mechanisms appear to be most effective at meeting policy objectives. Basically there are three goals that countries around the world seek to achieve with regard to tertiary education (and many other public functions as well):

1. Increasing access to, and equity in, tertiary education as measured by:
 - a. Increasing overall participation rates for students of traditional enrolment age who enter a tertiary education institution in the year following their graduation from secondary school.
 - b. Expanding the number and range of lifelong learning opportunities, particularly for older students and other non-traditional groups of students, including distance learners.
 - c. Reducing disparities in participation rates between students from low-income and high-income circumstances as well as other important dimensions of equity such as gender and racial/ethnic group.
 - d. Increasing private sector investment and activity

in the provision and support of tertiary education activities.

2. Increasing the external efficiency of tertiary education systems by improving:
 - a. The quality of the education provided, measured in a number of ways.
 - b. The relevance of programmes and of graduates in meeting societal and labour market needs.
3. Improving the internal efficiency and sustainability of tertiary education systems by:
 - a. Reducing or moderating the growth over time of costs per student and improving how resources are allocated, both among and within institutions.
 - b. Decreasing repetition and raising the rates of degree completion.

OBJECTIVE 1: INCREASING ACCESS AND EQUITY

A fundamental policy issue in virtually all countries is the question of how to increase access to the system of tertiary education. This concern about increasing access stems from the fact that in most countries around the world traditionally only a small percentage of the population has been able to benefit from extending their education beyond the secondary level. Although the degree of access has increased markedly in many countries to levels that represent mass or even universal systems of tertiary education, access in many other countries remains low by international and historical standards.

Even in countries that have achieved unprecedented and previously unimaginable levels of access, other equity problems remain, including large disparities in the participation rates of different groups of students. Frequent disparities include the differences in participation between students by their socioeconomic status, by the gender of the student, and by ethnic/racial differences. Another disparity often exists between students of traditional age and older individuals who wish to pursue lifelong learning opportunities.

A – INCREASING PARTICIPATION RATES OF TRADITIONAL AGE STUDENTS

A basic tenet of public policies in most countries is to increase the participation rates among traditional age students who have satisfactorily completed their secondary education. An examination of the experience in a number of countries suggests that three strategies seem to be most successful in raising the participation rates of these students:

- Growing funding of public tertiary education to increase supply combined with relatively low tuition

fees to stimulate demand. Examples of countries that successfully pursued this strategy to achieve mass or universal levels of participation include most US states in the 1950s and 1960s and a number of Scandinavian countries over the past quarter century.

- Higher fees to increase resources combined with high levels of scholarships and loans to help students and families pay for the higher fees. Countries that have achieved much higher levels of participation by pursuing this approach include the United States and Canada over the past quarter century and Australia and New Zealand since 1990.
- Expanding private sectors of tertiary education that reduce pressure on public funding to finance expansion of the system. Examples of this approach include countries in Asia (Japan, the Philippines, South Korea, Taiwan, India), Latin America (the Dominican Republic, Colombia, Brazil), the United States, Portugal, and a growing number of Eastern European nations.

An examination of international experience also reveals a number of examples of financing strategies that have not been as successful in achieving higher levels of participation of traditional age students. These include countries in which:

- Relatively low public funding levels for tertiary education are combined with low fee levels to create tertiary education systems with low participation rates by traditional age students.
- A strategy of low public funding levels, high fees, and low amounts of financial aid to students also tends to lead to elite tertiary systems, albeit at high expenditures per student.

B – EXPANDING LIFELONG LEARNING OPPORTUNITIES

One of the most prominent trends in many countries over the past few decades is the increasing proportion of enrolled students who are older than the age when students traditionally complete their secondary education. This trend towards larger numbers of older students enrolling in tertiary education is a function of many factors, including global pressures for retraining over a lifetime and the increased availability of distance learning and other educational experiences that are more suitable for older, non-traditional students.

International experience suggests that traditional allocation mechanisms such as funding formulas tend not to work well in expanding lifelong learning. Most formulas and other mechanisms for funding institutions are not designed to meet the specific needs of older students.

Demand-side vouchers are also unlikely to promote lifelong learning as it is harder to identify as voucher recipients older students and distance learners because

they are not obvious consumers of tertiary education in any given year. To achieve the objective of expanding lifelong learning, funding formulas would have to give special recognition to older students, which few – if any – countries do. In this regard, supply-side vouchers could be designed to give high priority to older students. Another institutional funding approach that promotes lifelong learning is to have funding formulas or categorical funds pay a higher price for distance learning activities.

Mechanisms that directly fund students would seem to have a better chance of promoting lifelong learning than those that fund institutions, as they can be tailored to meet the needs of older students. However, most student aid programmes are not well designed for older students either. They tend to be primarily intended to meet the needs of traditional age students and their families.

Three examples of student support programmes that do seem to have greater potential for expanding lifelong learning opportunities are:

- Scholarships that provide support for the tuition fees and living expenses of students who are financially independent of their parents.
- Loans with liberal eligibility rules that help students from a broad range of incomes and circumstances pay for their tuition fees.
- Tax benefits that are designed to help meet the fees and current expenses of students who are or have been in the workforce.

C – CLOSING EQUITY GAPS FOR UNDERREPRESENTED GROUPS OF STUDENTS

As is the case with increasing access, improving the equity of tertiary education is a fundamental issue and tenet of public policy in virtually all countries. Few if any countries do not have substantial gaps in participation patterns among groups of students. These gaps may run along lines of socioeconomic status, gender, and/or the ethnic/racial characteristics of students.

By and large, mechanisms that allocate funds to institutions are unlikely to help much in closing equity gaps in student participation. Negotiated budgets and funding formulas are not conducive to recognizing the special needs and costs associated with educating certain groups of students. One exception could occur with supply-side vouchers when institutions are paid more for certain categories of students such as the premium that the Higher Education Funding Council of England pays for students from certain postal codes with high concentrations of low income families. Thus, proposals to create supply-side vouchers in which allocations to institutions are distrib-

uted based on student characteristics rather than institutional factors should be effective in this regard.

If demand-side vouchers are differentiated by income, they can also help improve equity. A very powerful model would be one in which demand-side vouchers were combined with student aid vouchers. Under such an approach, all students could carry a voucher to cover a portion of recurrent expenses; those students who have demonstrated high merit and/or high need could receive an additional amount that would advance the goals of equity and quality. If not differentiated inversely by family income, however, vouchers can decrease equity because they would provide no additional resources to students who most need help to pay for the higher fees that might be entailed in implementing such a system. Thus, to be successful in promoting equity, demand-side vouchers must include a substantial student aid component as well.

Debates in most countries regarding the need for greater equity recognize that programmes that provide support to students and their families are more likely to be effective in closing equity gaps than mechanisms that provide public support to institutions. Among programmes of support for students, international experience suggests the assessment that we shall now discuss.

Need-based scholarships represent the primary policy vehicle used in most countries to close equity gaps. The theory is that by using scholarships to replace the resources that families would otherwise have provided, economically disadvantaged students will be able to overcome financial barriers they face in continuing their education. This theory has worked well in a number of countries where need-based scholarships have indeed contributed to increased participation rates and helped close equity gaps.

However, the success of this approach hinges critically on whether enough seats (places) are supplied to accommodate the disadvantaged students who qualify for need-based aid. Put another way, need-based scholarships are likely to have limited impact in closing participation gaps at institutions or systems of institutions where admissions are selective and seats are limited. In such a situation, low income and other economically disadvantaged students are more likely to enrol in non-selective institutions.

Student loans can be another primary means for closing equity gaps. The general theory at work in a number of countries is that loans must be substantially subsidized to encourage low-income students to enrol. However, an examination of the actual experience in a number of countries suggests that loans with lower levels of subsidies can be more effective in closing equity gaps as students from a wide range of incomes seem willing to borrow to pay for their tertiary expenses. The US experi-

ence in this regard is instructive. Government payment of interest while borrowers remain enrolled applies to borrowers with family incomes in the highest income quartile because of the way in which financial need is defined. New Zealand recently introduced a similar interest benefit for borrowers while in school; it, too, is poorly targeted on the neediest students and as a result seems to be an ineffective policy intervention at least for purposes of improving equity.

Income contingent and other innovative repayment schemes may be more effective in expanding access to a broader range of the population than upfront interest subsidies which may or may not be well targeted on the most disadvantaged students. After all, income contingency has the advantage of targeting subsidies when borrowers need them the most: during repayment.

Tax benefits seem less likely to help in closing equity gaps as they tend to benefit those who pay taxes in the first place. Tax benefits that help students and their families pay for tuition fees and other expenses or that encourage more savings for tertiary expenses are more likely to help middle and upper income families. However, to the extent that the availability of tax benefits may allow policy makers to focus more need-based grants on the most disadvantaged students, they can indirectly help in improving the equity of the overall support system as well.

D – EXPANDING PRIVATE SECTOR PROVISION OF TERTIARY EDUCATION

One of the key issues in developing public allocation mechanisms and strategies is whether private institutions and the students who attend them are eligible for support. How this issue of private sector involvement is resolved differs substantially between the support of institutions and the support of students.

Very few countries provide direct public support of the recurrent expenses of private institutions. New Zealand, Chile, the Palestinian Authority and a few countries in Asia, including the Philippines, are examples of countries that provide public funds to private institutions for their recurrent expenses. In the USA, a handful of states have traditionally made payments to private institutions over and above portable student aid. New York has the oldest and largest programme of this kind; it pays private institutions in the state for every graduate from a private college – so much for a baccalaureate, more for a master's degree, and more for a PhD.

The rationale for these institutional support programmes is that it is less expensive and therefore more efficient for a country or state to pay for a portion of a private college seat than to build a new one in the public sector. Policy support for these programmes in the USA is

buttressed by studies in several states indicating that students in the public sector have a higher family income than students attending private institutions.

To the extent that demand-side vouchers are made available to students enrolling in private institutions as well as public institutions, they should be a good vehicle for promoting private sector development. To the extent that supply-side vouchers are limited to public sector students, they are less likely to promote growth in the private sector of tertiary education.

In general, allocation mechanisms that support students are much more likely to be effective in promoting private sector development than mechanisms that support institutions. A number of countries provide public support to the students who attend private institutions in the form of grants or loans, including South Korea, the Philippines, Thailand and the United States.

Of the programmes that support students, loans would seem to be among the most effective means of promoting private sector development, especially loan programmes that focus on helping students pay for tuition fees which tend to be higher in the private sector. Similarly, tax benefits that are designed to offset the costs of tuition fees may be more effective in promoting greater private sector development than tax benefits for living expenses such as family allowances.

OBJECTIVE 2: INCREASING EXTERNAL EFFICIENCY – IMPROVING QUALITY AND RELEVANCE

Another major objective of public policies in tertiary education in virtually all countries is improving the external efficiency of the system, which has two related components. One aspect of external efficiency is quality measured in a variety of ways. The other aspect of external efficiency is relevance of the tertiary system – to what extent is the system meeting the needs of society in general and the labour force in particular.

A – IMPROVING QUALITY

In most countries, improving quality in tertiary education is an important policy objective although what is meant by quality can vary widely. It may mean ensuring that students are learning. It may refer to the level of academic standards and whether regulatory or funding mechanisms are in place to ensure that standards are met. In a number of cases, quality is defined or measured in terms of spending per student or completion rates, which in this paper is regarded more as a measure of internal efficiency.

Since quality, however defined or measured, is largely a supply concept in terms of institutional behaviour and activities, mechanisms that allocate funds to institutions tend to be thought of more as the means to achieve

improved quality than student support. However, not all institutional allocation mechanisms are equally effective at improving quality. Negotiated budgets are not conducive to promoting quality objectives. Nor are funding formulas good mechanisms for improving quality because there are few if any measures of quality that are readily adaptable to formula components or calculations. For this reason, other institutional allocation mechanisms such as competitive funds are likely to be more effective in promoting quality improvement because they allow for a more nuanced examination of what it takes to improve quality, and they can be more easily designed to reward whatever aspect of quality improvement is being sought.

While programmes that support students are typically not as effective as institutional support in funding quality, there are ways in which student funding mechanisms can support quality improvements as well. Merit-based scholarships that reward the best students are the most obvious example of student support programmes that can promote quality.

There is also reason to believe that allocation mechanisms for either institutions or students may not be as effective in ensuring or improving quality as more regulatory efforts such as maintaining admissions standards at selective institutions or creating quality assurance procedures to ensure minimal levels of quality in the teaching and learning functions.

B – IMPROVING RELEVANCE

Although quality is the most obvious form of external efficiency, ensuring that tertiary education is relevant to the needs of society and responsive to the pressures of the market place is an equally important and related measure of external efficiency. Quality and relevance are inextricably linked as low quality programmes are unlikely ultimately to be relevant to employers and other ‘consumers’ of tertiary education.

The most typical definition of relevance is whether the graduates of tertiary institutions are meeting the labour force needs of the marketplace. Are institutions graduating students in fields of study that match up well with the demands of employers? Similarly, is the research being conducted at universities relevant to the key challenges facing a nation?

International experience suggests that the goal of improving relevance can be addressed in terms of funding of both institutions and students. Several institutional funding mechanisms seem particularly appropriate at improving relevance:

- Priority-based formulas that pay more for seats in high-priority fields of study combined with low

tuition fees that encourage more demand in designated fields.

- Competitive funds that include relevance as a key criterion in the selection of recipients.

Supply-side vouchers are likely to be more effective than demand-side vouchers in promoting relevance because it is easier to adjust prices paid to institutions for seats as a way to encourage more relevance. Demand-side vouchers are not well designed to improve relevance because they tend to pay institutions the same amount for each student. Thus, formulas structured as supply-side vouchers have a much better chance of improving relevance.

On the student financing side, mechanisms that lead to improved relevance include:

- Scholarships for students enrolling in high-priority fields of study.
- Favourable terms and conditions for loans made to students enrolling in higher priority fields of study.
- Loan forgiveness for student borrowers who enter employment in high-priority fields.

OBJECTIVE 3: INCREASING INTERNAL EFFICIENCY AND SUSTAINABILITY

Increasing internal efficiency and ensuring sustainability is the third principal policy objective in tertiary education. Internal efficiency has several components. One is the need to moderate costs to conserve resources. Another is to maintain or increase the rate at which students complete their programmes and receive degrees. These and other measures of internal efficiency are ultimately linked to notions of sustainability – policies will prove unsuccessful if they are not sustainable in the longer term.

A – COST CONTAINMENT AND MODERATION

Well-designed funding formulas are among the most important element in institutional allocation policies in helping to ensure overall cost containment and moderation. Funding formulas that utilize average costs per student or normative costs are more likely to lead to a moderation in institutional costs per student than formulas that use actual costs per student, which may encourage inefficient institutions to either spend more or restrict enrolments to increase their expenditures per student. Performance-based allocation mechanisms such as performance contracts or payments for results also hold the prospect of moderating costs if this goal is included in the contracts or payment agreements. Other institutional allocation mechanisms such as input-based funding or categorical funds are less likely to be effective in moderating costs.

While institutional mechanisms are likely to be the most effective in containing costs, student support programmes can also play a role in achieving this important

objective. For example, students' eligibility for student financial aid – scholarships, loans, or tax credits – should not be tied to their total costs of attendance to minimize the potential impact of aid availability on institutional pricing strategies.

The US experience in this regard is instructive. When the GI Bill for returning veterans was first implemented after the Second World War, the benefit was pegged to the total tuition fees that students paid up to a maximum dollar amount at that time of \$500. After many public institutions raised their tuition fees to that level to fully capture this new source of federal funds, the policies were changed to provide monthly benefits of a fixed amount that included living expenses to introduce more of a market test since participating veterans could pocket the difference between the fixed benefit and the tuition fee that was charged. By contrast, US students and parents can borrow up to the total costs of attendance in the federal student loan programmes, which may be part of the story why tuition fees in the USA have grown at twice the rate of inflation for more than two decades, while student loan availability has grown tenfold in real terms during that same time. Perhaps for this reason, when tuition tax credits were introduced in the USA in the late 1990s, they covered only a portion of the tuition up to a fixed dollar maximum.

One of the strengths of demand-side vouchers when compared with more traditional ways of funding recurrent expenses is that they have the potential of introducing more competition among institutions, thus increasing system efficiency by forcing institutions to compete for students more than under other allocation mechanisms. This kind of competitive mechanism should lead to greater efficiency and lower costs per student, at least in theory.

Supply-side vouchers as a form of formula funding do not create as much of a sense of student choice and competition for funds as do demand-side vouchers, and as a result they share the weaknesses of that kind of approach, including not creating as much of a market situation as demand-side vouchers. On the other hand, a supply-side voucher in which payments are based on normative costs should be a mechanism that promotes internal efficiency as well as equity.

B – IMPROVING THROUGHPUT

Another aspect of internal efficiency is the throughput of the system as measured by degree completion rates or how many students complete the educational programme they start, and the speed at which students graduate. As in the case of cost moderation, improving throughput can be achieved through institutional or student financing policies. Unlike cost issues, however, the policy which is

typically the focus of throughput discussions is the student side of the ledger, namely what can be done to encourage students to complete their education more quickly. These discussions in many countries address the question of whether student aid should be limited to the normal duration of the course of study.

But there is good reason to believe that institutional allocation mechanisms may be more critical to improving student throughput. Particularly, paying institutions through funding formulas or separately for the students they graduate can be a powerful incentive to improve throughput rates. The biggest concern in this regard is that institutions will sacrifice quality by reducing standards in order to qualify for more performance-based funding. One way to address that concern is to not pay too much for results or to mix payments for enrolment with payments for degree completion. Having adequate quality assurance mechanisms in place is another critical policy means for allowing institutional incentives to work properly.

In terms of vouchers, supply-side vouchers can also be used to pay institutions more for student performance, thereby encouraging greater throughput. By paying for graduates or year-end completers, supply-side vouchers as a funding formula can lead to improved throughput while demand-side vouchers by their nature are more keyed to the enrolment decision of students.

CONCLUSION

Alice: Would you please tell me which way I ought to go from here?

Cheshire Cat: That depends on where you want to get to.

Lewis Carroll

The examination in this paper of the experience of a number of countries around the world over the past several decades with both traditional and more innovative allocation mechanisms provides a set of lessons that can help policy makers in developing and transition countries formulate strategies for increasing the effectiveness of their resource mobilization and allocation mechanisms.

Rely on a combination of resource mobilization and allocation mechanisms to achieve the desired policy objectives. A primary lesson from the experience over the past several decades with resource mobilization in tertiary education around the world is the importance of not relying on a single source of funding. This growing diversity of funding sources has been an important response by governments and institutions to the mismatch between demand and resources. Similarly, countries should rely

on a mix of allocation mechanisms to achieve the objectives they seek for their tertiary education systems. Funding formulas are good mechanisms for allocating core resource levels but typically are not very good at rewarding quality or stimulating greater equity. Student aid programmes are often the best mechanism to help stimulate better access and equity, but they should not be relied upon exclusively for achieving this important objective. Policy makers should explore innovative ways of using institutional allocation mechanisms to improve the equity of the system. By the same token, improving quality and relevance should not be the sole province of institutional allocation mechanisms. There are a number of ways in which student support efforts can be used to improve both quality and relevance.

Choose the most appropriate mix of allocation instruments to meet the policy objectives sought. While linking budget allocations to some measure of performance should be a guiding principle, the selection of allocation instruments should depend in great degree on the policy objectives being sought. As discussed in the paper, some allocation mechanisms are much better at achieving certain objectives than others. In general, the particular circumstances of the country matter a lot in determining the most appropriate set of allocation mechanisms to rely on. What works well in one country will not necessarily work well in another. Many allocation mechanisms require strong government structures and adequate public resource bases to be effective. Many developing and transition countries lack these basic essentials and thus must look to other approaches that do not have these requirements for success. Even industrial countries often lack the policy structures and resource bases that make certain approaches work in other countries. Furthermore, what worked well at a given moment in time may, ten years later, no longer be adequate to address a different set of policy objectives.

Be careful in defining and prioritizing the policy objectives that are being sought. Policy discussions in many countries tend to devolve into platitudes of the need for more access or better quality or greater efficiency. Without precise and accurate definition of the objectives being sought, these policy discussions can easily slide into advocacy exercises in which more of everything is better, with little or no prioritization of goals or objectives. These kinds of discussions are ultimately disappointing and counterproductive as they fail to inform policy makers with a plan for making the inevitable tough choices about how to utilize scarce resources most effectively.

Avoid linking allocation mechanisms and systems of quality assurance too rigidly. Governments should be cautious and not try to establish too rigid a relationship

between the results of evaluation/accreditation and the amount of funding going to tertiary education institutions. A more effective approach may be to make participation in evaluation and accreditation exercises a criterion for access to additional public funding, rather than a determinant of the amount of that funding. As an example, Chile has just introduced a new law to extend the eligibility of student loans to students enrolled in private tertiary education institutions that have agreed to participate in the accreditation process.

The political feasibility of reforms should be addressed through appropriate expert studies, stakeholder consultations, public debates and press campaigns to minimize the risks of opposition and resistance. Many financing reforms, including establishing or increasing tuition fees, replacing scholarships with student loans, or authorizing private tertiary education institutions to operate are controversial measures. Political difficulty should not be used, however, to delay implementing necessary and important reforms.

TABLE I.4.2

Typology of allocation mechanisms

Type of allocation mechanism	Where practised
I. DIRECT PUBLIC FUNDING OF INSTITUTIONS. Countries typically provide public support of institutions to finance: their instruction, operations and investment expenses, including recurrent expenses and for a variety of specific purposes; and university-based research.	
A. FUNDING INSTRUCTION AND INVESTMENT. Countries around the world use a number of different approaches to help institutions pay for their expenses related to instruction, operations, and investment. These payments typically apply only to public institutions, although in a few countries private institutions are also eligible for this support.	
1. Negotiated budgets. Allocations of public funds negotiated between government and institutions are largely a function of historical or political factors, either the amount received the year before or the political power of the institution. Negotiated budgets typically are allocated to institutions either as:	The most traditional form of funding recurrent expenses, still in effect in many countries.
<i>a. Line-item budgets.</i> Negotiated budgets are often implemented through line-item allocations to institutions.	
<i>b. Block grants.</i> Providing a single block grant to each institution is another way that negotiated budgets can be implemented.	
2. Formula funding. Most countries now use some form of formula to allocate funds to institutions for their recurrent expenses. These formulas vary on the basis of what factors are used in the development of the formula and what type of organization develops it. The factors used in determining funding formulas include:	
<i>a. Based on inputs.</i> The most primitive type of formula, based on inputs such as the number of staff or staff salaries at each institution, and other more sophisticated measures such as the number of professors with a PhD.	Initially the most typical type of formula, still used in some cases, especially in Eastern Europe.
<i>b. Based on enrolments and costs/student.</i> Most funding formulas are now based on the number of students enrolled and a variety of cost per student calculations as shown below:	
1. Actual costs/student. Allocations to institutions based on actual costs per student as reported by the institution.	Most traditional form of formula funding.
2. Average costs/student. Allocations to institutions based on system-wide average costs per student, usually calculated from aggregate statistics on spending and enrolments.	
3. Normative costs/student. Allocations are based on the calculation of normative costs, using optimal staff/student ratios and other standardized efficiency measures.	An approach adopted or being considered.
<i>(i) Benchmarking.</i> One form of normative costs in which the cost figures and structure are pegged to a 'benchmark' institution.	
<i>c. Chargeback arrangements.</i> In cases where funding is based on prospective estimates of student and/or costs, allocations are reviewed mid-year to reflect reality and funding is adjusted.	Most countries with formulas based on prospective estimates/costs use chargebacks.
<i>d. Priority-based funding.</i> Formulas by which adjustments are made to reflect national and regional priorities such as critical labour force needs; also referred to as funding for relevance, for example a price higher than full cost might be paid to institutions for seats determined to be in high-priority fields of study.	England has taken a lead in inserting priorities into its funding formula; selected US states also make such adjustments.
<i>e. Performance-based formula components.</i> Performance measures are built into funding formula, for example institutional allocations are based on the number of year-end completers or degree recipients rather than the number of students enrolled.	Denmark, England, Israel and the Netherlands base all or a portion of formula on end-of-year completers or graduates.
<i>f. Student-based allocations.</i> Funds could be distributed to institutions based primarily on the characteristics of the students who enrol instead of the more traditional institutional characteristics such as costs/student; this kind of formula could be referred to as 'supply-side' vouchers.	England pays a premium for students who live in areas with many low-income students. Jordan and the Palestinian Authority have proposed student-based allocation schemes.

TABLE I.4.2

cont'd

Type of allocation mechanism	Where practised
<i>g. Organizations developing formulas.</i> Another important consideration in describing formulas is what kind of group develops the particulars of the formula. Options include:	
(i) <i>Political entities.</i> In most countries politically elected entities such as chief executives or legislatures design and implement the funding formula.	
(ii) <i>Buffer bodies.</i> In a minority of cases, groups known as buffer bodies develop the formula. These buffer bodies represent the link between governments and institutions and are intended to insulate the funding process from excessive political pressures.	The Higher Education Funding Council of England (HEFCE) is a prime example of a buffer body.
3. 'Demand-side' vouchers. Public funds in support of the operating expenses of institutions are distributed to students in the form of vouchers; institutions are then reimbursed by government based on the number and/or amount of vouchers they submit.	Colorado is implementing a voucher approach to pay institutions for their recurrent undergraduate expenses.
4. Performance-based funding. In addition to the performance-based formula funding components described above, a number of countries in recent years have adopted performance-based funding mechanisms to fund all or a part of recurrent operating budgets. Three types of performance-based funding are:	
<i>a. Performance set-asides.</i> A percentage of funds outside the basic funding formula is distributed based on a set of performance measures. Typically only a small portion of funds for recurrent expenses are distributed on this basis; in a few cases, most funds are allocated on performance measures.	South Africa; more than a dozen states in USA, including Missouri, New Jersey, Tennessee, South Carolina, Ohio.
<i>b. Performance contracts.</i> Regulatory agreements between governments and systems of institutions or individual institutions in which various performance measures are used to benchmark progress. These contracts are typically more punitive than incentives as institutions would be penalized for not meeting the agreed upon performance-based standards.	In France, payments are made when contract is signed, with post-evaluation. Denmark and Austria also use contracts. Colorado is implementing contracts.
<i>c. Payment for results.</i> A small number of countries now pay for performance in one of two ways:	
1. Performance-based formula components. discussed above as I.A.2.e.	Denmark, England, Israel and the Netherlands.
2. Fees for services. Institutions enter into contracts with governments to produce a certain numbers of graduates and are paid based on whether they meet the contract specifications.	Colorado is implementing a system to pay for each post-baccalaureate student enrolled.
5. Funding for specific purposes. There are several mechanisms through which governments fund institutions for specific purposes, including:	
<i>a. Categorical funds.</i> Certain categories of institutions are designated as being eligible for funds for a specific purpose; these funds may often be distributed on a formula basis among the designated institutions.	A more traditional form of funding which many countries use to fund for specific purposes, for example (Title III Program in USA).
<i>b. Competitive funds.</i> These are usually funded on a project-by-project basis, typically for the purposes of improving quality, promoting innovation, and fostering better management – objectives that are difficult to achieve through funding formulas or categorical funds.	Argentina, Bolivia, Bulgaria, Chile, Ghana, Hungary, Mozambique, Sri Lanka, USA (FIPSE).
B. FUNDING OF RESEARCH. A number of arrangements exist around the world for the funding of university-based research:	
1. Instruction and research funded together. Perhaps the most common approach for funding research – some of the funds that governments provide to institutions are used to pay for research rather than for instruction and operations.	Many countries fund research and instruction together via negotiated budgets or formulas.
2. Block grant funding. Institutions receive a block grant allocation specifically for research activities but not differentiated or specified by project; institutions or faculties set priorities. The size of the block grant may be based on:	
<i>a. Specific research proposals.</i> Funding levels largely determined by evaluation of specific project proposals although funding provided as a block grant.	New Zealand.
<i>b. Institution demonstrated capacity.</i> The amount of funding for each university is based on an assessment of collective faculty capacity to conduct research – the 'blue skies' approach.	England is an example of the 'blue skies' approach to research funding.
3. Project funding. Faculty or other staff receive funding for research for proposed projects, usually based on peer reviews.	US federal funding of research.
<i>a. Matching funds.</i> Governments provide funds for specific purposes if matched by the institution or private sources.	

TABLE I.4.2
cont'd

Type of allocation mechanism	Where practised
II. FUNDING OF STUDENTS	
A. GOVERNMENT GRANTS AND SCHOLARSHIPS. Most countries provide non-repayable aid to their students, but how this aid is provided varies on a number of dimensions, including how the programmes are administered, which students are eligible, and which expenses are covered:	
1. Programme administration. A key policy variable in describing grant and scholarship programmes is how they are administered:	
<i>a. Administered by institutions.</i> Public funds are provided to institutions which are then responsible for distributing funds to students, often according to rules set forth by the government.	Hungary, Lithuania, Poland, Portugal (merit-based).
1. Matching funds. Governments may require institutions to match public funds by providing waivers or discounts to selected students.	USA (institution-based programme).
<i>b. Student aid vouchers.</i> Students and families apply to a centralized source and are provided with vouchers based on an assessment of their financial need and/or merit. In some cases institutions receive government payments to reflect vouchers they receive from students; in other cases, students receive the money directly.	Denmark, France and other francophone countries, USA (Pell grant), Chile (merit-based vouchers for best secondary school graduates).
2. Eligibility and coverage. Grants and scholarships vary greatly in the criteria for how eligibility for non-repayable aid is determined and which expenses are covered:	
<i>a. Means-tested.</i> In most countries, eligibility for grants is based primarily on assessments of the financial need of the student and/or family. This non-repayable aid may be:	
– Solely or primarily for tuition fees.	UK (until 2006).
– Solely or primarily stipends for living expenses.	Austria, Belgium, Estonia, France, Finland, Germany, Ireland, Italy, New Zealand, Norway, Poland, Slovenia.
– For both tuition and living expenses.	Portugal, USA.
<i>b. Merit-based aid.</i> In a number of countries, eligibility for scholarships is based primarily on the academic merit or other accomplishments of the student. This non-repayable aid may be:	
– Primarily for tuition fees.	USA (growing number of states).
– Primarily stipends for living expenses.	Austria, Estonia, France, Hungary, Poland.
– For both tuition fees and living expenses.	Netherlands.
<i>c. Need-based and merit-based.</i> Eligibility is based on both financial need and the academic merit of students.	Czech Republic, France, Malta, Slovakia (stipends).
B. TAX BENEFITS. Families or students receive a tax benefit in the form of a credit against tax or a deduction from income for either current expenses or savings for future expenses:	
1. Current tuition fees. Students and/or families receive tax benefits to offset all or a portion of tuition fees.	Ireland, USA.
2. Family allowances. Provided through the tax system, these tax provisions help parents offset the expenses of supporting children while they are enrolled in higher education.	Austria, Belgium, Czech Republic, France, Germany, Latvia, Netherlands, Slovenia.
3. Incentives for savings. Through credits or deductions, tax systems can also be used to encourage parents and students to save more to help pay for their higher education expenses.	USA has enacted a number of provisions to reward family saving for college education.
4. Prepaid tuition plans. In a number of US states, parents and others are now able to purchase contracts that lock in current tuition fee levels at public institutions for the future.	Michigan was the first US state to offer a prepaid plan. A number of others followed suit.
C. STUDENT LOAN MODELS. A number of different models exist for student loans in more than 50 countries around the world. A key difference in these models is the type of repayment schedule employed. Approaches also vary according to the source of capital, type of expenses covered, and eligibility and level of subsidy:	
1. Mortgage-type loans are repaid on an amortized (equal) basis over a fixed period of time.	The most traditional type of student loan repayment.
<i>a. Source of capital.</i> Mortgage-type loans may be funded from:	
1. <i>Private sources.</i> Commercial banks and other private sources of capital provide the capital in most mortgage-type student loan programmes around the world, including:	Canada, Chile, China (commercial), Korea, USA (guaranteed).
2. <i>Public sources.</i> One recent trend is for countries to shift from private to public funding of mortgage-type loans.	Canada, China (subsidized), Hong Kong, Thailand, USA (direct).
3. <i>Creative financing.</i> A number of creative financing mechanisms have been considered to facilitate the provision and expansion of mortgage-type student loans, including:	
– Secondary markets in which existing student loans are sold or used as collateral to create new loan capital.	USA (Sallie Mae and other entities), Colombia.
– ‘Securitization’. Bonds are secured by the projected flow of funds from student loan repayments.	USA, Chile.
<i>b. Expenses covered.</i> Mortgage-type student loan programmes also vary in terms of which expenses they cover:	
– Tuition fees only.	Lithuania, South Korea (all), Japan, Philippines (all).

TABLE I.4.2
cont'd

Type of allocation mechanism	Where practised
– Primarily for living expenses only.	Denmark, England, Finland, Germany, Hong Kong, Lithuania, Poland, Slovakia, Scotland.
– Both tuition fees and living expenses.	Canada, China, Estonia, Hong Kong (non-subsidized), Malta, the Netherlands, Thailand, USA (all).
<i>c. Eligibility and level of subsidy.</i> Mortgage-type loans vary in terms of whether they are means-tested and the level of subsidy entailed.	
1. Means-tested and highly subsidized. Eligibility for subsidies is means-tested and interest subsidies and default costs exceed 10 per cent of loan value	China (subsidized), Philippines (study now pay later), Thailand, USA (subsidized).
2. Little or no subsidy. In loan programmes where eligibility is broad-based, subsidies are less than 10 per cent of the loan value.	China (commercial), USA (non-subsidized).
<i>d. Private sector eligibility.</i> Countries where public sector and private sector students are both eligible include:	South Korea, Philippines, Thailand, USA.
<i>e. Graduated and extended repayment plans.</i> Fixed amortized repayments are graduated (smaller earlier payments and larger later payments) and/or extended beyond the normal fixed term	US programme is a prime example of this approach.
2. Income contingent repayments. A more innovative financing approach for student loans occurs when repayment is based on the amount borrowed and a percentage of the income of borrowers once they complete their education.	
<i>a. Mandatory income contingent repayment.</i> All borrowers repay based on their income after graduation; borrowers sometimes have an option to prepay without income contingency.	
– Fees initially paid by students and families.	South Africa, Sweden, New Zealand.
– Fees initially paid by government.	Australia, UK (in 2006).
<i>b. Optional income contingent repayment.</i> Borrowers who have amortized repayment obligations are provided with the option of repaying on the basis of their income after graduation.	USA since 1993 provides income contingent option; Chile is another example in that student loan defaulters are moved into the tax system.
<i>c. Graduate tax.</i> Students pay for their education as a percentage of their income through taxes throughout their working life once they complete their education. Income contingency differs from graduate tax in that repayment is not required for lifetime or until retirement, just until the loan has been fully repaid.	No country really has a graduate tax.
<i>d. Human capital contracts.</i> Student participants agree to repay a portion of their incomes to investors who have an 'equity stake' in the student's post-graduation income. Under some versions, investors would be able to depreciate the economic value of the students in their taxes.	Mostly theoretical, but there are pilot schemes in Chile and the USA.
<i>e. Loan forgiveness.</i> Another form of income contingency is to forgive all or a portion of repayments for borrowers likely to earn less in public service positions such as those entering certain employment fields, particularly in underserved geographic areas such as rural settings or inner cities.	USA forgives loan repayments for teachers or doctors who agree to practise in underserved areas.
3. Internally financed student loans. A less utilized way to finance and structure student loans, institutions use the fees paid by some students to finance loans to help other students pay their fees. These loans can entail little or no government involvement although they can be facilitated by private financing schemes that allow institutions to finance their current operations until loans are repaid. They also allow more innovative repayments including:	
<i>a. Deferred payment plans.</i> Fee payments spread out over a period of time that begins while the borrower is still in school.	Philippines.
<i>b. Privately financed and serviced.</i> Institutions sell loans or contract with private services when borrowers begin to repay.	
<i>c. Part grant/part loan.</i> In some countries student financial aid is provided partially as grants and partially as loans.	Norway, Sweden.

TABLE I.4.3

Assessing effectiveness of allocation mechanisms

	Possible effects and objectives						
	Increase level of access (scale)	Improve equity of access	Promote lifelong learning	Private sector expansion	Improve external efficiency (quality and relevance)	Internal efficiency (moderate cost growth)	Internal flow efficiency (better throughput)
I. Public funding of institutions							
<i>A. Funding instruction</i>							
1 A. Negotiated budgets	–	–		–		+	–
B. Formula funding							
Input-based	--	--	--	--	–		

TABLE I.4.3
cont'd

	Possible effects and objectives						
	Increase level of access (scale)	Improve equity of access	Promote lifelong learning	Private sector expansion	Improve external efficiency (quality and relevance)	Internal efficiency (moderate cost growth)	Internal flow efficiency (better throughput)
Enrolment and cost-based							
– Actual costs/student			–	–	–	--	
– Average costs/student						+	
– Normative costs/student					+	++	
Priority-based			+		++		
Performance-based				+			++
Student-based allocations		+	+	+/-		–	+
C. Demand-side vouchers	+	+	–	++	+	+	–
Funding specific purposes							
– Categorical programmes			+				
– Competitive funds			+		++		
– Performance-based							
– Set-aside funds						–	+/-
– Performance contracts				+		+	
Funding of research							
– Funded with instruction			–				
– Block grants							
– Projects peer reviewed			+				
II. Funding of students							
Grants and scholarships				+			
– administered by insts.							
– provided as vouchers							
– means-tested		+					
– merit-based		–			+		
– need and merit		+			+		
Tax benefits							
– tuition fee offsets	+	–	+	+			
– living allowances							
– savings incentives							++
Student loans							
Mortgage-type							
– amortized	+						
– graduated/extended	+	++					
Income contingent		++					
– mandatory income contingent	+	++					
– optional income contingent	+	+					

Jamil Salmi and Arthur M. Hauptman

NOTES

- 1 This paper adopts the OECD definition of tertiary education as 'a level or stage of studies beyond secondary education. Such studies are undertaken in tertiary education institutions, such as public and private universities, colleges, and polytechnics, and also in a wide range of other settings, such as secondary schools, work sites, and via free-standing information technology-based offerings and a host of public and private entities.' (Wagner, A., (1999). Lifelong Learning in the University: A New Imperative? In W. Hirsh and L. Weber (eds) *Challenges Facing Higher Education at the Millennium*, pp. 134–52. American Council on Education. Phoenix, Ariz.: Oryx Press. p. 135).
- 2 Several countries also use their tax system to provide incentives for greater levels of saving for future expenses related to tertiary education. These tax incentives for savings are more of an example of resource mobilization than resource allocation which is the focus of this paper.
- 3 Salmi, J. (1999) *Student Loans in an International Perspective: The World Bank Experience*. World Bank.

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SPECIAL COLLABORATION 1.7

BANCO SANTANDER CENTRAL HISPANO SOCIAL RESPONSIBILITY

Borja Baselga



SOCIAL CORPORATE RESPONSIBILITY

Until recently, people talked simply of business philanthropy. Today, they speak of social corporate responsibility (SCR). In reality, we are not dealing with a new term (in fact, it began to be used in the United States in the 1950s), but the different paths taken by the two concepts

define the evident evolution in the concept of the company.

Within this context, which is favoured by the growing size of companies and the globalization of the economy, the idea of the modern company is no longer restricted to its traditional, exclusively economic responsibilities, owed mainly to the shareholders. On the current horizon of relations, other groups and collectives appear (the so-called stakeholders and interest groups) who have their own interests and expectations of the company's behaviour and its implication in solving social problems.

It is here that the concept of social corporate responsibility begins to take on meaning, going beyond pure profitability

so that a set of qualitative values emerge. By definition, SCR creates value for the company and for society.

Today, most large Spanish companies have social responsibility programmes and publish reports in which they detail their commitment to the collectives with whom they relate and to society as a whole.

Although social corporate responsibility is a universal demand, it is more significant in places such as Latin America, where there are many Spanish companies. The recent liberalization of certain sectors there has allowed foreign multinational companies to provide services previously provided by public companies. For these companies, committing them-

selves to social questions, beyond simply creating wealth, is a way of demonstrating their commitment to the countries in which they work.

THE SANTANDER GROUP'S SOCIAL CORPORATE RESPONSIBILITY PLAN

In 2002, the President of the Santander Group announced the Group's Social Corporate Responsibility plan to its employees, journalists, students, analysts and investors.

Now that a short period of time has passed, it is possible to make a positive evaluation of this plan because it has fulfilled some of the premises that were the basis for its creation:

- The investors have rewarded the plan by including the Santander Group's actions in the main indexes of socially responsible investment (especially the FTSE4Good and DJSI indexes).
- There is a demand for the plan by clients, as shown by their support for the marketing campaigns for causes involving the Red Cross and Doctors Without Borders.
- The plan motivates the employees. The 126,000 professionals in the Santander Group feel satisfied with the SCR policy of the Group in which they work.

SANTANDER GROUP'S COMMITMENT

In the SCR plan, the Group takes on a commitment that has a clear basis: the firm conviction that the main social function of the company is to create wealth and employment and pay taxes.

The commitment to provide services and financial solutions fits into this premise, assuring the highest standards of transparency and good governance, and trying to create value for:

- the shareholders, achieving adequate returns on their investments
- the clients, offering high quality services that guarantee their satisfaction
- the employees, contributing to improving their quality of life
- society, collaborating in the develop-

ment of all the countries in which the Bank works.

THE NINE MEASURES OF THE SCR PLAN

A strategic plan based on nine specific measures:

- Adherence to the United Nations World Pact.
- Creation of the SCR Department.
- Bringing together the concepts of work and family.
- Participation of the employees in voluntary initiatives.
- Training in SCR.
- Analysis of environmental risks in the clients' credit operations.
- Environmental certification (ISO 14.001) for the main work centres in Spain and abroad.
- Measures for reducing consumption.
- Marketing campaigns with causes.

These nine specific actions are supported by a system of objectives and indicators that allow us to carry out an adequate follow-up, along with continual improvement.

SPECIFIC PROJECTS FOR SOCIETY

The Santander Group has a commitment to a large number of projects linked to the society in all the countries in which it works.

However, as in any investment, the most important factor is not costs but returns. It is worth highlighting that in 2004 the Group invested 84.4 million euros in social action, which is 2.7 per cent of its net profit.

The distribution of these contributions shows the Group's firm commitment to supporting education. The investment in education is the social investment that generates the most benefits in the long-term, and it contributes to the sustainable economic development of countries. It is also an investment that is highly profitable for the bank because it nurtures new clients and qualified workers.

SUPPORT FOR UNIVERSITIES

In the field of education, the Bank promotes three large projects, described below, to which it devotes 70 per cent of its investment in social responsibility.

- The *Universidades* programme through which the Bank collaborates with universities in more than 400 initiatives in different areas in the countries in which the Bank works. The overall financial contribution to this programme in 2004 came to 44 million euros, which was dedicated to the following aspects:
 - Academic programmes, mainly centred on providing financial aid for research projects aimed at improving the teaching quality and the internationalization of academic activity.
 - Training and research grants programme. In 2004 there were 8000 beneficiaries, among whom were students, doctoral students and lecturers.
 - 36 chairs have been created with the Santander Group's help for developing teaching and research in specific knowledge areas. In particular, the nine chairs in a like number of Spanish universities, concerning sustainable development of SCR stand out.
 - Technological innovation programmes that help develop and use information and communication technology in university activities. The online training and virtual campus projects, the digitalization of bibliographic collections and doctoral theses and the renovation of administration systems stand out as examples, with more than 190 projects being carried out.
- The Universia platform that brings together 843 Spanish, Portuguese and Latin American universities.
- Universia is the fruit of the collaboration between the Conference of Spanish University Rectors (CRUE), the Council for Scientific Research

(CSIC), 32 Spanish universities and the Santander Group. Although it was conceived as an Internet platform, Universia has become the largest university cooperation network in the world, and brings together the major higher education institutions in Latin America.

- The member universities of Universia represent 8.8 million students, that is, more than 80 per cent of the university collective of the 11 countries in which the platform is active.
- The Universia network is addressed to students, lecturers, academics, researchers, and university administrative staff, not forgetting the social and business environment that surrounds the university.
- The platform has become strong

and rich, linking contents and services related to university life, and acting as a platform for taking full advantage of technological innovation.

- The Miguel de Cervantes Virtual Library, a free access portal that offers more than 14,000 works of literature written in Spanish and other Hispanic languages.
 - It is the largest collection on the Internet of Hispanic literature and the most visited literary website in Spanish.
 - It was created in 1999 on the initiative of the University of Alicante, with the support of the Santander Group and the Marcelino Botín Foundation. Mario Vargas Llosa is its president.

This emphasis on university education is the most distinctive characteristic of the Santander Group's SCR policy. No other international companies have developed such broad collaborative links with all the universities of Spain and the majority of Portuguese and Latin American universities.

Through this relationship, the Santander Group brings its know-how to technological and financial questions and gives opportunities to thousands of students each year, through study grants in their own countries or in other countries within our collaboration network. The three projects, *Universidades*, Universia and the Virtual Library, bring, without doubt, many benefits to the societies in which the Bank works.