the living costs associated with attendance in tertiary education.

6. In many countries around the world student loans have been expanded—including the development of various income-contingent repayment schedules in a half dozen countries over the past two decades in which repayment levels are tied to the amount borrowed and the income of borrowers once they complete their education. Another approach includes 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.

These innovative approaches for allocating public funds hold the promise of helping countries improve the access, equity, quality, relevance, and efficiency of their tertiary education systems. But policymakers and institutional officials must be careful to recognize the obstacles of successful implementation of these innovative approaches—including administrative capacity, transparency, and political feasibility.

Lessons from International Experience

Resource mobilization and allocation mechanisms. The 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.

Mix of allocation instruments. While linking budget allocations to some measure of performance should be a guiding principle, the selection of allocation instrument should depend to a great degree on the policy objectives being sought. Some allocation mechanisms are much better at achieving certain objectives than others. In addition, what works well in one country will not necessarily work well in another. Many of the more innovative allocation approaches require strong government structures and adequate public-resource bases. Many developing and transition countries lack these basic essentials and thus must look to other approaches that do not have these requirements for success.

Policy objectives. Policy discussions in many countries often tend to devolve into general discussions 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.

Links with systems of quality assurance. Governments should be careful not to establish too rigid a relationship between the results of evaluation and 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.

Political feasibility. 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. Expert studies, stakeholder consultations, public debates and press campaigns should be used to minimize the risks of opposition and resistance.

These rules for the road should help stakeholders in developing, transitional, and industrialized countries make the right choices for achieving successful allocation strategies for tertiary education. ■

The Trouble with Fees

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On May 5th the new Labour government was returned to office with a parliamentary majority reduced from 161 to 66. While the dominant themes in the election were clearly the Iraq invasion and immigration, the decision to raise tuition fees for higher education students in England was the third most important issue on the doorstep. It was vociferously opposed, with conviction, by the Liberal Democrats, who could and did mobilize the student vote. The issue was also opposed, although one might have thought against their natural instincts, by the Tories. The issue was so controversial that it was only won by the government, even with its previous majority, by 5 votes in the House of Commons in 2004, and very obviously it would not have succeeded if it had been delayed until after the election.

It is difficult to see why the decision was so controversial. Fees of £1,200 are already in force for 2005–2006 for every undergraduate higher education student in England; and the new decision, while raising the fee level in 2006 to up to £3,000 (depending on the charge levied by the university), does not demand an up-front payment on entry because the fee is to be paid after graduation on an income-contingent basis, with the government paying the fee at entry. Under means-test arrangements students from disadvantaged backgrounds can receive up to £2,700 per annum in maintenance grant. Students will thus be better off during their period of study under the new arrangements and will only be required to pay after graduation providing they are earning over £15,000, as against the current average graduating salary of about £19,000. A strong, secondary argument in favor of the new scheme is that it requires the middle classes, which benefit disproportionately from the higher education system both in terms of entry (over 70 percent of the higher education student population is from the professional and managerial classes) and from salaries and career prospects on graduation, to contribute more to the costs of higher education than lower income groups, which benefit much less but nevertheless have to contribute to the costs through the tax system.

The new scheme, however, was opposed by an alliance of those who believe that higher education should be free and those who saw it as a "stealth tax." A further strand of opposition came from those who opposed a variable-fees policy. The universities had campaigned for fees to be raised to alleviate the continuing financial stringency. The rector of Imperial College had publicly demanded that fees should be raised at Imperial to £10,000 per annum if the college was to remain internationally competitive. Variable fees introduced a market element—in fact only a tiny majority of institutions chose not to charge the full £3,000—but also left open in the future the prospect of the fee levels being allowed to increase.

To get the variable-fee policy through, the government had to concede two control mechanisms. The first was that a bursary contribution must be made, out of the fee income, to all students from disadvantaged backgrounds, and a new agency, the Office of Fair Access (OFFA), was set up to give approval to individual universities' plans to charge fees against their proposals for bursary payments. The second was the creation of an independent commission to review the fee policy in 2009 and an agreement that no increase could be introduced except with the approval of Parliament after the commission had reported.

Thus, although one might see the introduction of variable fees as a further, timid, step in the marketization of higher education, the control on higher education numbers has not been relaxed to prevent the most prestigious universities from expanding (and enriching themselves) at the expense of the rest. Moreover the two control mechanisms themselves provide opportunities for future market interventions and uncertainty that severely limit the original intentions of the scheme.

> ***The most frequent response has been to mobilize more resources, principally introducing or raising tuition fees as a means of increasing cost sharing.***

In March OFFA published the bursary levels that universities were offering. They showed an astonishing range with as a general rule the most prestigious institutions (that receive the fewest suitably qualified candidates from disadvantaged backgrounds) offering bursaries of around £3,000 per annum and those institutions that have the least competitive intakes (and therefore the most candidates from disadvantaged backgrounds) offering between £300 and £500. Within these extremes there is a clustering around £1,000 to £1,500 per annum with very few post-1992 institutions exceeding £1,000 per annum. The institutional pecking order, established by the league tables, is thus replicated in the level of bursary offers, although it is becoming clear that there will be discretion within most university offer levels to recognize particular student circumstances. Some universities are also offering a range of extras such as free laptops, vouchers for bicycles, and cash incentives.

Surprisingly, however, a market in bursaries has stimulated concerns about the danger of intake shortfalls, and the combined risks of not benefiting fully from the fee increase and of the imposition of a "claw-back" by the Funding Council if targets are not met. As a consequence, universities are now plunging into a scholarship market ("golden hellos") to attract students with high A-level scores irrespective of social class, also to be funded out of fee income. No list of scholarships available has been published but two conclusions can be drawn: the first is that the competitive market at the admissions stage has been greatly intensified and the second that overnight the student process of selecting universities for application has become immeasurably more complicated. Financial incentives have been added to more traditional concerns of choosing the right course, getting admission to a university whose league-table placement might help employment prospects, or picking a university in a particular location. The bureaucratic costs for each institution in managing these operations will further deplete the benefit of the additional income to be derived from the new fee structure.

> ***Some universities are also offering a range of extras such as free laptops, vouchers for bicycles, and cash incentives.***

The situation is further complicated by the fact that decision making on higher education is a devolved function to Scotland, Wales, and Northern Ireland. In Scotland, the Liberal Democrats made it a condition of entering a coalition government with Labour that the decision in 2001 to introduce fees should be resisted, and the Scottish Executive has continued to follow this principle with the new structure. This has prompted special arrangements to charge English students choosing to enter Scottish universities, one or two of which are heavily dependent on an English intake. In Wales, where half of Welsh students choose to study in England, a complex consultation process is being undertaken to determine whether Welsh students studying in Wales will pay fees. In both Scotland and Wales, the universities are concerned that the additional income apparently becoming available to English universities will make them less competitive in terms of salaries and research ratings. In Northern Ireland, still ruled from Westminster because of the present standoff in Northern Ireland politics, the decision to move to the new fee structure has been taken, but because of considerable cross-border student traffic this will create tensions with the Irish Republic, which has so far resisted the recommendations of an OECD review of its higher education system to charge tuition fees.

There is a temptation to see all this as presaging a widespread move in Europe to charge tuition fees, and indeed, a recent European Commission document could be seen as encouraging such a development. But as the narrowness of the vote in the UK House of Commons shows and the continued resistance in Scotland and Wales, the introduction of a substantial tuition-fee element to first-degree work undertaken by home students is deeply controversial, even in the most market-led higher education system in the European Union and even when the scheme is designed in a way that might not be thought unattractive to students. With its reduced majority, the Blair government may even find it difficult to retain the newly introduced system when Parliament reviews it, as it is committed to do, in 2009. At the very least it is unlikely that the advocates of raising the £3,000 limit much in 2009 will be successful, and, as a consequence, the government will find itself under renewed pressure from the universities for a larger public investment in higher education. ■

Manpower Planning and University Enrollments: The Debate in Singapore

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Faced with growing resource constraints, many countries are grappling with the issue of how best to allocate resources to publicly funded universities. Quite a few governments have used manpower planning models to guide policies regarding university enrollments and resource allocation. These models typically derive educational enrollments from projected manpower requirements based on forecasts of economic growth. Recent public debate on university admissions policy in Singapore raises anew the question of the effectiveness of the manpower planning model that Singapore (and many other countries) relies on to guide university intakes. The Singapore government is committed to giving its universities greater autonomy over financing and student admissions to enable them to develop into world-class institutions. It has pledged that it will not require full financial independence of publicly funded universities. Nevertheless, the government continues to direct university admissions to ensure the output of graduates matches projected skilled manpower needs.

University Autonomy

The stated goal of university autonomy may, however, not correspond to the manpower planning model that has influenced university admissions and funding for the past 30 years. The model was useful while Singapore's mass-manufacturing-driven economy was catching up to developed-country levels of industrial development. Today, rapidly changing technology and skill requirements make it harder to discern the way ahead, even for the world's most adroit, anticipatory nations and world-class multinationals.

In most countries where the government provides the bulk of the funding for universities, individual universities make these policy decisions. "University autonomy" means that each institution decides what degree programs to offer and their course content; how many and on what criteria students are admitted to each program; how much is charged for tuition; the types and terms of faculty recruited; and how faculty, students, and the university itself are evaluated.

Market Signals

How do universities make these decisions? They depend on market signals from employers who hire their graduates; students and their parents who choose (and pay for) degree programs; and the demand for and supply of academic manpower in various specializations. This market responsiveness ensures flexibility and efficiency in resource allocation.

If employers do not hire the graduates of any particular university or degree program or if the salaries they offer are too low, students and parents will shift their demand (and tuition revenues) to other universities and courses whose graduates are better rewarded in the job market. Faculty in specialized, high-demand areas will experience a rise in salaries, which will attract academic talent into those areas.

These supply-and-demand alterations do not always take place instantaneously or smoothly, but the market functions well on the whole. In producing academic excellence and technological innovation, these changes also absolve governments (who fund universities) of blame should universities misjudge market signals and make the wrong decisions.

Employers look for higher-order thinking and communication skills, and more recently, IT skills. They value employees with the capacity to learn, relearn, and unlearn. They also seek a diverse workforce in terms of training, outlook, and subject knowledge. Business leaders who sit on the advisory committees of American universities often counsel against training undergraduates in specific narrow and especially novel fields. They stress instead basic disciplines and breadth of course work because highly specific skills and knowledge can quickly become obsolete.

How Universities Respond

Highly rated and market-responsive universities offer a variety of degree programs and produce a wide range of graduates. Unlike Singapore, where manpower planning is skewed toward engineering and business, top British and American universities produce few business graduates at the bachelor's