ISSUE BRIEF

The Global State of Higher Education and the Rise of Private Finance

BY RYAN HAHN

August 2007

INSTITUTE FOR HIGHER EDUCATION POLICY
1320 19th Street, NW, Suite 400
Washington, DC 20036

202 861 8223 **TELEPHONE**
202 861 9307 **FACSIMILE**
www.ihep.org **WEB**

Produced by the Global Center on Private Financing of Higher Education

PFIB0807000-GCPF

Introduction

In the past two decades, higher education around the globe has undergone a remarkable transformation. Technological innovation coupled with globalization has drastically altered the structure and finance of educational systems of all countries seeking to benefit from the global economy. In the countries of the Organisation for Economic Co-operation and Development (OECD), public funding has failed to keep up with the rising costs of higher education. In the emerging market economies, public finances have often proven insufficient to fund the necessary expansion of higher education or the creation of a differentiated system of vocational and university education. As a consequence, private finance has become a vital partner in the success of higher education in many parts of the world.

Countries as diverse as the United Kingdom, Chile, Hungary, South Africa, and South Korea have turned to private capital markets to help expand or revitalize institutions of higher education. In the OECD countries, private expenditures on higher education relative to gross domestic product (GDP) doubled between 1995 and 2003. The growth of private finance is likely to continue, as governments in OECD and emerging market countries seek to take full advantage of the opportunities for growth and prosperity presented by a global economy. The ability of governments to capitalize on these opportunities will depend in part on the availability of reliable and timely analysis about developments in this field.

This first issue brief of the Global Center on Private Financing of Higher Education (hereafter, the GCPF) provides an overview of the role of private finance in higher education globally. A description of the current state of private finance is followed by an analysis of the drivers behind the changes that have occurred. The brief concludes with a list of topics for future in-depth research by the GCPF to help universities, governments, banks, philanthropists, and others take advantage of private capital in their quest to improve and expand higher education around the globe.

Financing Higher Education in the 21st Century

Currently, most governments around the world take primary responsibility for the financing of higher education. The numerous public benefits of higher education continue to justify substantial government support, despite competing priorities such as health care, primary and secondary education, and infrastructure. However, a combination of increased per unit costs and higher enrollments has driven up costs, straining government resources to their limit. Consequently, the private sector—represented by households, businesses, and philanthropists—has taken on even greater responsibility for the costs of higher education. This cost-sharing with the private sector takes a number of forms, including tuition[1] paid by students and parents, fees and royalties earned through university-industry collaboration and donations from alumni and other philanthropists.[2] The increasing reliance on private finance to cover the costs of higher education has stimulated a parallel trend. To manage this increased cost-sharing, private finance increasingly serves as a conduit for investment in higher education through bond issuances, securitizations, private and public-private student loan programs, and other means. Increased cost-sharing and greater private investment have helped reduce the strain on government resources and maximize the resources available to higher education.

While many higher education systems are increasingly relying on the private sector, they are starting from very different points and face different challenges. In parts of Western Europe and the former communist countries, the state used to take full financial responsibility for a mass higher education system. In many of these countries, governments have brought in the private sector as a junior partner. In the United States and a handful of other countries, private finance has had a historic role in higher education, and it has gained in importance. A third set of countries consists of those that have restricted access to higher education to an elite class. Breaking from this elitist past, many countries have used private finance to achieve rapid expansion of their systems of higher education, thereby supporting integration into the global economy. A fourth set of countries has avoided this trend—these countries have been forced to limit the funding channeled to higher education or commit an increasing percentage of public resources to meet the demands of quality and access.

The available international data corroborate observations in individual countries: private finance has increased its role in the past two decades, particularly in the past decade. Currently, there are three sources of internationally comparable data on higher education: (1) the OECD; (2) the United Nations Educational, Scientific and Cultural Organization's (UNESCO) Institute for Statistics (UIS); and (3) the World Education Indicators (WEI) program. While each source has limitations (see the appendix for more information on the data sources and their limitations), they can help answer a number of important questions:

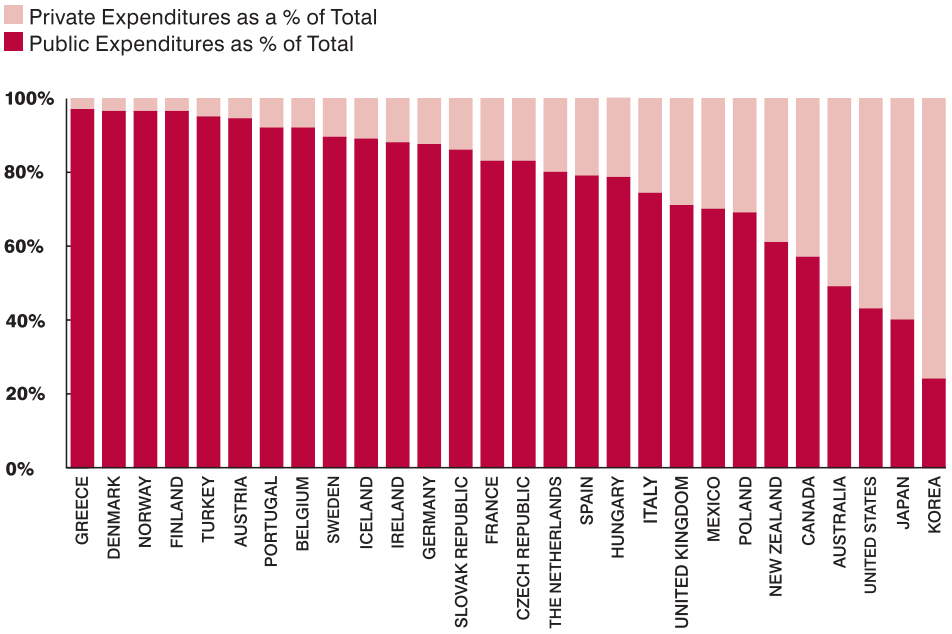
- What is the current contribution of private finance to higher education systems relative to the public sector?
- How has the role and size of private finance changed in the past two decades?
- Which countries may benefit most from an increase in the role of private finance?

[1] In the United States, the term "tuition" refers to a mandatory charge of all students matriculating at a postsecondary institution. These charges are known as "tuition fees" in many other parts of the world but are referred to as "tuition" throughout this document for the sake of clarity.

[2] In the context of higher education, the term "cost-sharing" is attributable to the work of Bruce Johnstone (Johnstone 1986).

FIGURE A

Public and Private Expenditures on Higher Education as a Percentage of Total Expenditures on Higher Education in the OECD Counties, 2003



NOTE: THE OECD REPORTS DATA FOR PUBLIC EXPENDITURES THAT EXCLUDE PUBLIC SUBSIDIES TO HOUSEHOLDS AND OTHER PRIVATE ENTITIES. IN MOST CASES, THE OECD PROVIDES SUFFICIENT INFORMATION ON THE SUBSIDIES TO DISAGGREGATE THEM FROM PRIVATE EXPENDITURES. CASES OF INSUFFICENT DATA ARE NOTED WITH THE RELEVANT FIGURE.
SOURCE: ORGANISATION FOR ECONOMIC CO-OPERATION AND DEVELOPMENT 2006, TABLE B3.2B

UIS data reveals that while public finance is clearly the senior partner in higher education, private finance is an important junior partner.[3] Of all expenditures on higher education in 53 countries in 2002, 63 percent came from public sources and 37 percent came from private sources (UIS Data Centre).[4] When this figure is broken down, considerable variation is apparent among countries and regions. In the OECD countries, private finance plays less of a role on average; it accounted for only 23 percent of higher education finance in 2003, with public money covering the other 77 percent. Even the OECD average hides a great deal of variation among countries, with private financing of higher education ranging from more than 50 percent in the United States, Australia, and Japan to less than 10 percent in Austria, Denmark, Turkey, Norway, and Portugal (**FIGURE A**).

Outside the OECD countries, internationally comparable data are more limited. The WEI data set provides data on both private and public expenditures on higher education for only eight middle-income countries. Data from 2003 show that the average share of private expenditures stood at 43 percent, while public expenditures stood at 57 percent (**FIGURE B**). WEI data collection efforts are still in the early stages of development, so this figure should be interpreted with care; it covers only a small subset of middle-income countries.[5] At least in this subset, though, private finance came much closer to playing the role of an equal partner in financing higher education than in the OECD countries. This comparison suggests an interesting possibility: if private finance continues to gain importance in the OECD countries, these countries will converge with emerging market countries rather than the usual situation of developing nations playing catch-up with advanced countries.

Data on the OECD countries indicate that within private finance as a whole, households spend almost twice as much as all other private entities on higher education. Through a combination of tuition and indirect expenses, households in 2003 contributed 16 percent of total expenditures on higher education, while other private entities (e.g., businesses, charities, and labor organizations) contributed 9 percent (**FIGURE C**).[6] Data on other parts of the world are too limited to provide a comparison. In the OECD, countries with a higher average contribution from households relative to total expenditures typically share three features: (1) relatively high tuition;

[3] For the purposes of this issue brief, higher education refers to all institutions classified as level 5 or 6 according to the International Standard Classification of Education, often referred to as ISCED97. ISCED97 level 5 is defined as the first stage of tertiary education, and level 6 is defined as the second stage of tertiary education (i.e., leading to an advanced research qualification). For more information about the ISCED97 classification criteria, see: www.uis.unesco.org/TEMPLATE/pdf/isced/ISCED_A.pdf.

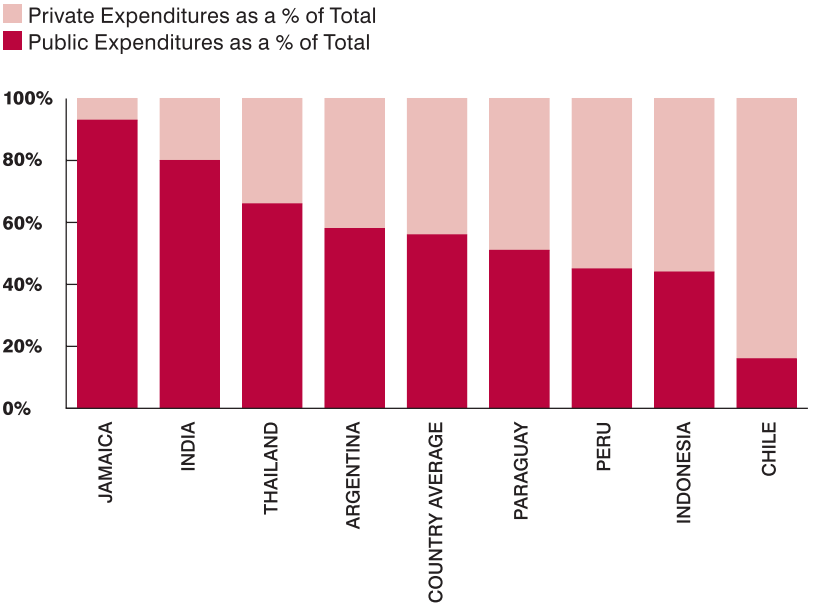
[4] Fifty-three countries reported figures for public and private spending on higher education in at least one year in the period 2002–03. To calculate the percentage of public and private funding, data from 2002 were used where available; otherwise, figures were taken from 2003 or 2001. These percentages are unweighted averages of UIS country data, and they exclude contributions from international sources.

[5] The World Bank divides countries into those with low, middle, and high income. The most recent division classified middle-income countries as those with 2005 gross national income per capita between $876 and $10,725. For more information, see: www.worldbank.org/data/countryclass/classgroups.htm.

[6] These averages are calculated using unweighted country-level data taken from table B3.2b (OECD 2006).

FIGURE B

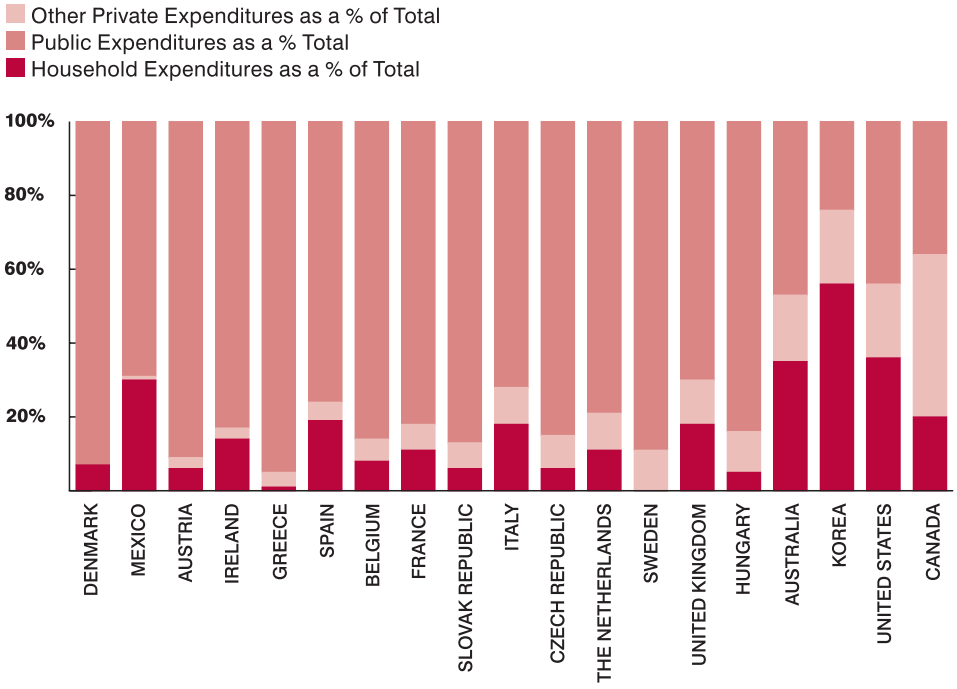
Public and Private Expenditures on Higher Education as a Percentage of Total Expenditures on Higher Education in Selected Middle-Income Countries, 2003



NOTE: THE COUNTRY AVERAGE IS AN UNWEIGHTED AVERAGE OF THE EIGHT COUNTRIES PRESENTED IN THE FIGURE. THE DATA PROVIDED BY THE WEI PROGRAM ARE TOO LIMITED TO PERMIT PUBLIC SUBSIDIES TO HOUSEHOLDS AND OTHER PRIVATE ENTITES TO BE ATTRIBUTED TO PUBLIC EXPENDITURES, SO THEY ARE INCLUDED AS PRIVATE EXPENDITURES. THUS, THE DATA REPORTED IN FIGURE B OVERSTATE THE CONTRIBUTION OF PRIVATE EXPENDITURES AND UNDERSTATE THE CONTRIBUTION OF PUBLIC EXPENDITURES. DATA FROM THAILAND, PERU, AND CHILE WERE TAKEN FROM 2004.
SOURCE: WORLD EDUCATION INDICATORS 2006, TABLE 2.B.II

FIGURE C

Public, Household, and Other Private Expenditures on Higher Education as a Percentage of Total Expenditures on Higher Education in Selected OECD Countries, 2003



NOTE: SEE NOTE IN FIGURE A. BECAUSE OF LIMITATIONS IN THE DATA, THE FIGURES PROVIDED HERE FOR HOUSEHOLD EXPENDITURES INCLUDE PUBLIC SUBSIDIES TO HOUSEHOLDS; FOR EXAMPLE, GRANTS AND LOANS TO PAY TUITION FEES. THE FIGURES FOR CANADA ARE FROM 2002.
SOURCE: ORGANISATION FOR ECONOMIC CO-OPERATION AND DEVELOPMENT 2006, TABLE B3.2B

(2) a developed private higher education sector; and (3) a government-supported student loan program (e.g., Hungary, Korea, the United States, and the United Kingdom). Countries with a high level of contributions from nonhousehold private entities have fewer common characteristics because of the variety of possible contributors. However, there is at least one commonality: the three countries with the highest private support from nonhousehold private entities (Canada, the United States, and Korea) also have high levels of support from households.

The available data indicate that the importance of private finance in higher education is a rather new development in many countries. In the countries for which data are available, private finance in higher education has risen substantially as a percentage of total expenditures on higher education. Between 1995 and 2003, private finance as a ratio of total expenditures on higher education increased on average by 5 percentage points. The countries that showed the greatest increases were Australia, Italy, and the United Kingdom—each saw private finance rise by more than 9 percentage points from 35 percent, 17 percent, and 20 percent, respectively. Only four countries—the Czech Republic, Ireland, Norway, and Spain—showed a decrease in the share of private finance in this period (OECD 2006).

Other measures of private finance tell a similar story. One useful measure is the percentage growth of inflation-adjusted dollars spent privately on higher education. According to this measure, private finance doubled, on average, in the OECD countries between 1995 and 2003 (**FIGURE D**). However, significant variation was observed, with private finance growing nearly sixfold in Denmark (from a very low base) and declining by about 20 percent in the Czech Republic. In contrast, public finance in the OECD countries during the same period grew, on average, by almost 50 percent. This confirms the point made previously about the continued public commitment to higher education, at least with respect to advanced industrial countries: governments continue to support higher education but find it increasingly difficult to keep pace with rising costs. The fact that both public and private finance grew so much underlines the importance placed on higher education by both the public and private sectors.

The OECD trend data are confirmed by a related measure: the growth of for-profit private education. Typically, these institutions rely primarily on tuition, so the growth of for-profit education de facto represents an increase in the private financing of higher education (Levy 2006). Our knowledge of for-profit education, however, suffers from limited data, in part due to the great diversity of for-profit institutions, which include international chains, publicly listed universities, corporate universities, and adult-oriented evening schools, among others. However, at least one indication of the growth of for-profit education is the global reach of international educational chains—for example, Laureate Education, Inc., which operates in 15 countries and was recently valued at $3.8 billion (Lederman 2007).

The OECD data on private finance are further correlated with a more reliable source of information: tuition. For countries with more than a nominal contribution from the private sector, tuition is typically the largest single component of private finance. Thus, the size of tuition is a good rough measure of the overall size of the private sector contribution to higher education. The following are some examples:

1. *Australia:* Australia introduced changes in 1996 to its Higher Education Contribution Scheme that increased student contributions by 40 percent from the previous average student contribution of $1,800 in 1989 (Swail and Heller 2004). As shown in **FIGURE A**, Australia has the fourth highest ratio of private-to-public finance of higher education.

2. *United Kingdom:* In response to declining per student spending, the United Kingdom introduced tuition of £1,000 in the 1998–99 academic year (Swail and Heller 2004). These fees have subsequently increased to a maximum of £3,000 for students who began their study in 2006 (Marcucci and Johnstone 2007). As shown in **FIGURE A**, the United Kingdom has the second highest ratio of private-to-public expenditures on higher education among European countries.

3. *Ireland:* In 1996, tuition was abolished in Ireland, and they have not been reinstated (Marcucci and Johnstone 2007). As shown in **FIGURE D**, Ireland is one of only two countries that showed negative inflation-adjusted/OECD growth in private expenditures on higher education between 1995 and 2003.

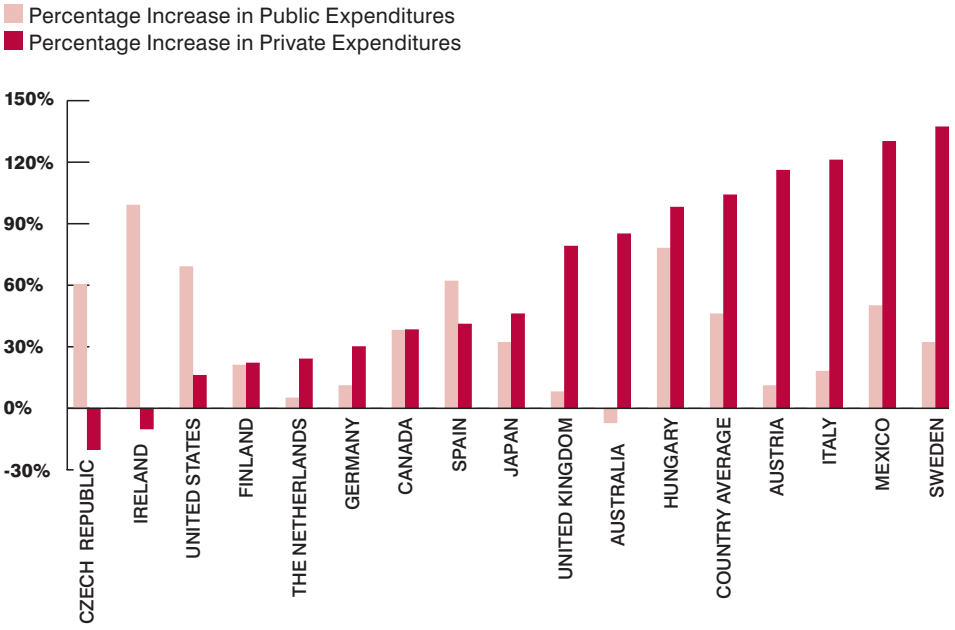
4. *Japan:* Higher education in Japan is supplied primarily by fee-charging private institutions. In addition, public universities in Japan have some of the highest tuition in the developed world (Marcucci and Johnstone 2007). As shown in **FIGURE A**, Japan has the second highest ratio of private-to-public expenditures on higher education among the OECD countries.

Outside the OECD, internationally comparable trend data are too limited to allow meaningful generalizations. However, national data from many countries suggest that private finance plays an increasingly important role. Private finance has undoubtedly increased its role in the three most populous non-OECD countries:

- *China:* Since 1978, China has introduced a number of reforms that have brought private finance into higher education, including an authorization in 1985 for universities to collaborate with industry and one in 1989 to allow fees for tuition (Martin and Sanyal 2006). One estimate suggests that from 1990 to 2001 the share of public finance in higher

FIGURE D

Inflation-Adjusted Growth in Public and Private Expenditures on Higher Education in Selected OECD Countries, 1995–2003



NOTE: FIGURES FOR SLOVAKIA AND DENMARK ARE NOT REPORTED IN THE GRAPH. SLOVAKIA SAW REAL GROWTH OF 51 PERCENT IN PUBLIC EXPENDITURES AND 326 PERCENT IN PRIVATE EXPENDITURES. FOR DENMARK, THE FIGURES ARE 22 PERCENT AND 598 PERCENT, RESPECTIVELY. BOTH DENMARK AND SLOVAKIA STARTED FROM A VERY LOW BASE OF PRIVATE EXPENDITURES.
SOURCE: ORGANISATION FOR ECONOMIC CO-OPERATION AND DEVELOPMENT 2006, TABLE B2.2

education expenditures decreased from 99 percent to 55 percent, representing a remarkable upswing in private finance (Arimoto 2006). This upswing coincided with, and supported, a massive increase in the number of students enrolled in higher education.

- *India:* For much of the second half of the 20th century, the expansion of higher education in India was financed by the central and regional governments. The strain on public finances caused by the expansion prompted the government in 1997 to start promoting financial independence, including the introduction of more than nominal tuition (ICHEFAP). Evidence from a national survey suggests that private spending has increased dramatically, with private per capita expenditures on education increasing fourfold from 1983 to 2003 (Agarwal 2006).

- *Indonesia:* Until the late 1990s, tuition at Indonesian universities was set by the central government. In 1998, legislation was passed that gave a number of universities the right to determine their own tuition levels. This right was subsequently extended to all universities in 2003. In the 1970s, tuition accounted for less than 10 percent of the revenues of public institutions of higher education in Indonesia; by 2004, that figure had risen to 20 percent (Buchori and Malik 2004).

Together, China, India, and Indonesia account for 41 percent of the world population (CIA World Factbook 2006). Furthermore, each of these countries accounts for an increasing share of total world enrollment in higher education, as each has made higher education a central part of its development strategy. China more than doubled college enrollment in the years 1998–2004 (Arimoto 2006), India saw enrollment more than double in the years 1990–2005 (Agarwal 2006), and in Indonesia enrollments at public institutions doubled while those at private institutions rose by a third over the years 1990–96 (ICHEFAP). When the student populations of China, India, and Indonesia are combined with those of the OECD countries, it becomes clear that the rise of private finance in higher education is not an anomalous phenomenon but a global trend encompassing a majority of the world's student population.

The Growing Demand for Higher Education

The single most important driver behind the rise of private finance is the explosion of private demand for higher education. This rise in private demand is a function of two factors: demographics and economics. Demographic trends have contributed to increased demand simply because even more people around the world are completing secondary education. Economic trends have brought about an increase in the private returns to higher education, increasing the amount of individuals who are willing to invest.

Politics, however, has determined the consequences of these demographic and economic trends. While a few countries have attempted to meet increased demand through an expansion of public resources, most countries have found it necessary to rely on both public and private finance. The net result has been a substantial increase in the role of private finance in higher education.

Demographic Trends

Higher enrollment and graduation rates at the secondary level have created pressing demands on universities around the globe. Enrollment ratios have increased in almost every region of the world (**FIGURE E**). Between 1999 and 2004, Latin America saw an increase of 10 percentage points, while Central Eastern Europe gained 7 percentage points. Only North America and Western Europe saw no improvement—these regions simply maintained their already very high enrollment ratios. Information on graduation rates at the secondary level is more limited, because schools are often more careful about counting incoming students than counting outgoing students. The increase in enrollment rates can create stress on secondary systems, causing a fall in graduation rates. However, the available data suggest that the net result has been an increase in the number of secondary school graduates in a number of emerging market economies (UIS/OECD 2005) and in the OECD countries (OECD 2006).

The increase in secondary school graduates has been combined in recent years with an upswing in international student mobility. Students are increasingly willing to look beyond their national borders for the best possible option for a bachelor's or advanced degree. OECD data suggest that the number of students enrolled abroad has increased markedly, doubling from 800,000 in 1980 to 1.6 million in 2001 (OECD 2004a). The OECD countries receive approximately 85 percent of the world's international students, with the United States, the United Kingdom, Germany, and France at the top of the list (OECD 2004a). While some of these students are subsidized by programs such as the European Union's Erasmus program, many students, particularly those from Asia, pay full fees (OECD 2004a). This phenomenon has contributed to the rise of private finance, as many international students are willing to pay higher fees for higher quality, but more potential exists for the growth of international student mobility. Many international students are constrained in their ability to borrow because government-run or government-subsidized educational loan programs (e.g., U.S. government direct and guaranteed lending) typically do not cover foreign students (Parker 2006). Some private loan providers, such as the Global Student Loan Corporation and the International Education Finance Corporation, have attempted to fill this financing gap, but predictions of large increases in the number of international students suggest that private finance still has considerable room for expansion in this sector if legal and informational barriers can be overcome (IDP 2002).[7]

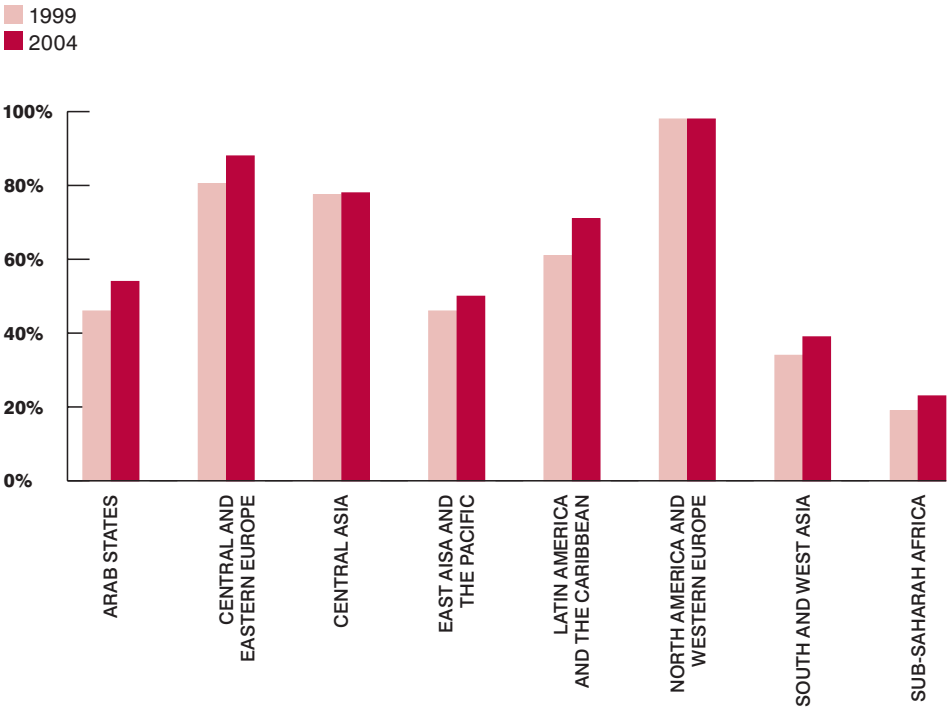
Economic Trends

Globalization and technological innovation have brought about major structural changes in the world economy. One of the most prominent features of this restructuring is the emergence of the knowledge economy as the primary driver of economic development in many countries. The World Bank argues that "the ability of a society to produce, select, adapt, commercialize, and use knowledge is critical for sustained economic growth" (World Bank 2002). This global restruc-

[7] More information about these companies is available at: www.globalslc.com and at www.iefc.com.

FIGURE E

Gross Enrollment Ratios at the Upper Secondary Level by Region, 1999 and 2004



NOTE: THE GROSS ENROLLMENT RATIO (GER) IS DEFINED AS THE NUMBER OF STUDENTS AT A GIVEN LEVEL OF EDUCATION, REGARDLESS OF AGE, EXPRESSED AS A PERCENTAGE OF THE POPULATION IN THE APPROPRIATE AGE GROUP FOR THAT LEVEL OF EDUCATION; IN THIS CASE, HIGHER EDUCATION. THE GER IS AN IMPERFECT MEASURE BECAUSE IT INCLUDES OVER- AND UNDERAGE STUDENTS IN ITS TALLY OF ENROLLMENT (THE NUMERATOR) BUT ONLY INCLUDES THOSE IN THE APPROPRIATE AGE COHORT IN ITS OF POPULATION (THE DENOMINATOR). IT IS USED HERE BECAUSE IT IS THE MOST COMPREHENSIVE AVAILABLE MEASURE OF ENROLLMENT
SOURCE: INSTITUTE FOR STATISTICS DATA CENTRE

turing of economies, however, has not been restricted to the wealthiest countries; with the appropriate macroeconomic policies, countries at many stages of development have benefited from the knowledge economy. Software engineers in Bangalore, India are able to reap many of the same benefits as their counterparts in Silicon Valley. Studies of the private returns for higher education confirm this trend—people with more education are better able to take advantage of a globalized economy. Obtaining a bachelor's or advanced degree is becoming ever more remunerative:

- In China, the average private rate of return for an additional year of education increased from 4 percent to 10 percent over the 1990s. However, this change was not constant for different levels of education; the greatest increase was realized by those with university degrees (Benjamin et al. 2005).

- A World Bank study found that in Brazil the average rate of return for each year of higher education increased approximately 4 percentage points over the period 1982–98 (World Bank 2001).

- The Brookings Institution states that this trend held for Latin America as a whole: "Over the last several years, returns to higher education in Latin America have risen dramatically relative to returns to secondary and primary education" (Graham 2001).

- A World Bank review of studies of the returns to education found that average private returns to higher education increased over a 15-year period (Psacharopoulos 1994).[8]

Political Trends

While demographic and economic trends have increased the demand for private finance, they have not guaranteed an increase in such finance. Governments claim a sovereign interest in higher education—including its finance—for numerous reasons, including national identity, public welfare, and social equity. The response of a country's government to the increased demand has determined whether private finance plays a significant role in that country's system of higher education.

Private finance has made its greatest gains in the post communist countries and some parts of Asia. The collapse of communism freed higher education in Eastern Europe and the former Soviet Union from state monopolies. In some countries, private universities have sprung up to meet the

[8] The private returns to higher education are not only a function of wages but also of the extent of public subsidies for students. The increase in private returns may also suggest that university students have appropriated more public funding on average, thereby increasing the regressive nature of the public financing of higher education.

demand for new courses of study and greater flexibility in curricula, including such examples as the Anglo-American College in the Czech Republic and Central European University in Hungary. Private finance has likewise gained a role; for example, in Hungary, the government-owned Student Loan Company borrows in private markets to provide student loans.[9] In Asia, private finance has made inroads in China, Vietnam, India, and elsewhere (Tres and Lopez-Segrera 2006). India is a particularly striking example: the government is currently debating whether to allow 100 percent ownership in higher education financed by foreign direct investment (FDI).

Private finance has also made some progress in parts of Western Europe. At the front of the curve is the United Kingdom, which first introduced tuition in the 1998–99 academic year, although not without considerable debate (Johnstone 2007). Additional measures to increase the role of private finance have been introduced since then, including an initiative promoted by British Prime Minister Tony Blair that provides matching government funds for private donations to universities (BBC 2007). Other countries that have introduced tuition include Austria (2001) and Germany (2005) (Marcucci and Johnstone 2007). The attempt to draw on private sources of funding has been prompted by a sense that European universities are in a decline, a result of the fact that per capita expenditures on European higher education are somewhere between one-third and one-half those in the United States (Miguel and Sadlak 2006). However, considering the extraordinary political opposition in some European countries to tuition, it is unclear whether this trend toward increased cost-sharing will continue or funding for universities will stagnate.

A number of governments have been more cautious in their approach to private finance. In Europe, the Nordic countries have thus far avoided the introduction of tuition. Political sentiment in these countries makes tuition "unthinkable," according to the Finnish Minister for Education, although students must bear the cost of living expenses incurred during their study (French 2001). And opposition to tuition extends beyond the successful social democratic states. The Irish government abolished tuition in 1996 (Marcucci and Johnstone 2007). The opposition to tuition in Ireland is remarkable because successive governments have introduced centrist economic reforms with great success, beginning in the late 1980s (Honohan and Walsh 2002). However, tuition is still considered out of the question in a European country that has liberalized many other sectors, including its airlines and telephony. In the former Soviet states, policies have varied. Only Authoritarian Turkmenistan has refused to allow private finance any role (Sanyal 2006). In a number of other countries, most notably Russia, a halfway house for private finance has been created in the form of a dual-tracking system (Marcucci and Johnstone 2007). Students who pass an exam receive a full subsidy, while others must pay the full cost of their education; this is a step backward in many cases for both the equity and quality of higher education. In Latin America, some countries have reduced the role of private finance in higher education. Most notable are the populist regimes in Venezuela and Bolivia (Muhr and Verger 2006). While countries such as these demonstrate that it is possible for the public sector to bear the entire burden of higher education finance, it is no longer the norm. Any discussion about the role of private finance must recognize the fact that most governments around the world have found the financial burden of higher education to be too much to bear alone.

[9] For more information about the Student Loan Company, see: www.diakhitel.hu.

Harnessing Private Finance for the Benefit of Higher Education

While private finance in higher education is a growing global phenomenon, its consequences for higher education, social development, and economic performance depend on particular national circumstances. The ability of countries to benefit from private capital depends to some degree on the capacity of their governments to formulate and implement effective policies (Gros 2006). A prime example is the ability of governments to enforce the collection of loan payments. Other examples are the capacity of governments to establish effective public-private partnerships, write and enforce appropriate tax codes, and collect data on income that can be used for means-tested scholarship and loan programs. Because government capacity varies from one country to another, the success of education reforms—including those that incorporate private finance—depend on national context.

Identifying countries in which increased private finance may have a beneficial impact requires consideration of at least two variables: (1) government effectiveness and (2) the investment gap in higher education. In its work on governance, the World Bank has developed an indicator that measures government effectiveness. The World Bank indicator is an aggregate measure of "the quality of public service provision, the quality of the bureaucracy, the competence of civil servants, the independence of the civil service from political pressures, and the credibility of the government's commitment to policies."[10] In the context of higher education, this indicator provides a rough approximation of a government's ability to partner effectively with private finance—for example, a student loan program that taps private capital markets. The second variable—the investment gap in higher education—is a function of two factors: cost per student and enrollment ratios. This allows the division of countries into those that primarily face rising per student costs and those that primarily need to enroll more students.

While most countries face a combination of rising per student costs and pressure to enroll more students, one or the other frequently predominates. There is no perfect scheme to divide countries on the basis of these two considerations; however, a rough approximation can be achieved by dividing countries into those with elite or mass systems of higher education (and a greater need to increase numbers) and those with universal systems of higher education (and a greater need to deal with rising per student costs).[11] Thus, the first set of countries in which private finance may prove beneficial are those with above-average government effectiveness and elite or mass systems of higher education (**FIGURE F**). Countries on this list include Botswana, Malaysia, Hong Kong, and Cyprus.

The second set of countries in which private finance could prove beneficial are those with above-average government effectiveness and universal systems of higher education. These countries primarily face the difficulty of meeting rising per student costs of higher education.[12] The strain placed on the public budget by these costs can be measured in part by per student public expenditures as a percentage of per capita GDP (**FIGURE G**). This measure compares the expenditure of public resources per person in a country with the available resources per person. Combining this measure with the World Bank's measure of government effectiveness generates a list that includes the Nordic countries, Iceland, and Belgium. In these countries, the introduction of private finance has the potential to reduce the strain on the public budget, although

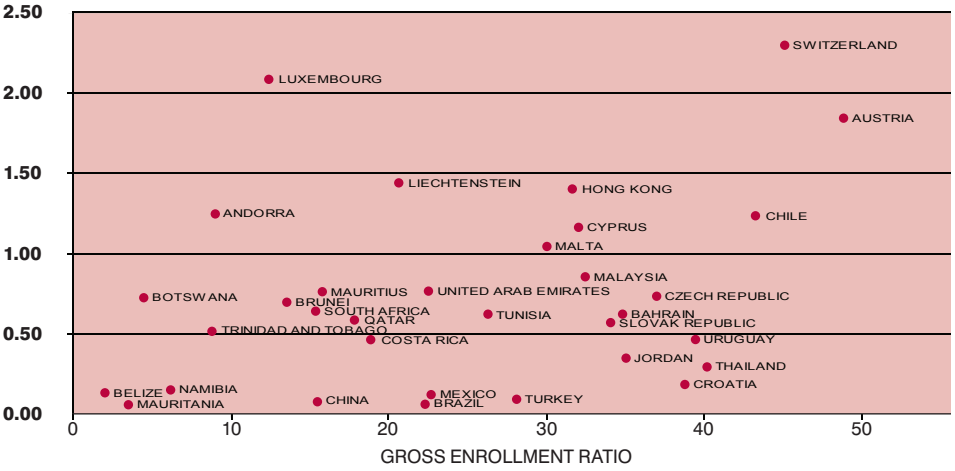
[10] Government effectiveness is one of six aggregate indicators the World Bank has developed to measure governance. For more information, see: www.worldbank.org/wbi/governance.

[11] Systems of higher education are classified on the basis of their gross enrollment ratios (GERs); elite, mass, and universal systems have GERs of less than 15, 15–50, and more than 50, respectively. This classification was first developed in the work of Martin Trow (Usher 2006).

[12] Technological innovation has generally made capital-intensive industries more efficient relative to labor-intensive industries. Sectors such as education that require a high labor input have seen a rise in per unit costs because they are limited in their ability to substitute capital for labor. Further diffusion of existing technological innovations will likely continue to put upward pressure on the per unit costs of higher education.

FIGURE F

Government Effectiveness vs. Gross Enrollment Ratios in Countries with Above Average Scores on Government Effectiveness and Elite and Mass Higher Education Systems



NOTE: SEE FIGURE E FOR THE DEFINITION OF GROSS ENROLLMENT RATIO. UNIVERSAL SYSTEMS HAVE A GER GREATER THAN 50, MASS SYSTEMS FALL BETWEEN 15 AND 50, AND ELITE SYSTEMS HAVE A GER BELOW 15. THE WORLD BANK'S GOVERNMENT EFFECTIVENESS INDICATOR IS NORMALIZED TO ZERO, SO ALL POSITIVE SCORES ARE ABOVE AVERAGE.
SOURCE: GER DATA ARE FROM THE UIS DATA CENTRE. FOR INFORMATION ON THE WORLD BANK GOVERNANCE INDICATORS, SEE HTTP://INFO.WORLDBANK.ORG/GOVERNANCE/KKZ2005/Q&A.HTM.

political realities might make this highly unlikely. The variable discussed here can only serve as a first approximation; in looking at specific policies or countries, considerations such as tax codes, economic structure, and political viability must be taken into account.

Given these considerations, countries that introduce private finance into higher education can benefit in a number of ways:

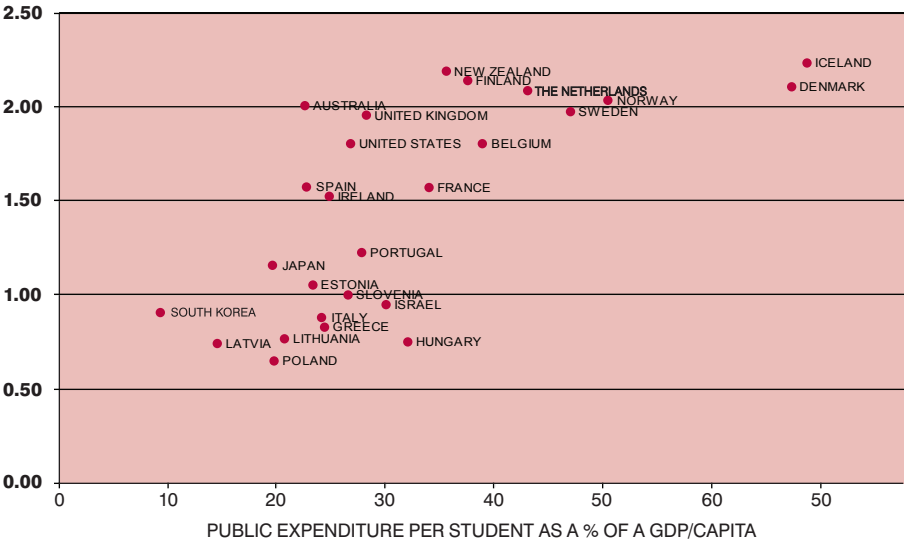
- *Progressive funding of higher education:* Public funding of higher education disproportionately benefits the wealthy when the wealthy have unequal access to public institutions. This is the case in many countries: evidence on Colombia, Kenya, Indonesia, and Canada indicates that "poor families finance the education of children of high-income families" (Vawda 2003). In theory, private finance can facilitate the targeting of public funds through grants and subsidized loans to the less well-off while charging tuition to those who are capable of paying (Johnstone 2006; Salmi and Hauptman 2006). While the viability of means testing, especially in developing countries, is a contentious issue, some have suggested other options—for example, using categorical indicators such as home ownership rather than income indicators (Tekleselassie and Johnstone 2004).

- *Reallocation of public resources to public goods:* A number of studies suggest that the public-good value of primary and secondary education exceeds that of higher education (Psacharopoulos 1994), although consensus does not exist on this issue (Task Force on Higher Education and Society 2000). For countries that suffer from brain drain, the fact that many highly educated people contribute little to their native countries suggests that primary and secondary education do have a greater public-good value than higher education. Where primary and secondary education are not yet universal, private finance can help fund part of the cost of higher education, freeing public funds for primary and secondary education (Patrinos 2000). The ability of a country to achieve this, however, is contingent on the existence of a financial market that is sufficiently developed to fill the gap in higher education financing created by such a reallocation.

- *Increased resources for higher education*: Higher education is an increasingly important economic asset in the global knowledge economy. For countries at the heart of the global economy, increased expenditures on higher education are an essential part of economic development strategy. Empirical evidence suggests that public and private finance have been complementary in achieving increased expenditures on higher education. According to the OECD, "It is notable that rises in private education expenditure have not generally gone hand in hand with cuts (in real terms) in public expenditure on education at the tertiary

FIGURE G

Government Effectiveness vs. Public Expenditure Per Student as a Percentage of GDP Per Capita in Countries With Above Average Scores on Government Effectiveness



NOTE: THE WORLD BANK'S GOVERNMENT EFFECTIVENESS INDICATOR IS NORMALIZED TO ZERO, SO ALL POSITIVE SCORES ARE ABOVE AVERAGE.
SOURCE: DATA ON PUBLIC EXPENDITURES ARE FROM THE UIS DATA CENTRE. FOR INFORMATION ON THE WORLD BANK GOVERNANCE INDICATORS SEE, SEE HTTP://INFO.WORLDBANK.ORG/GOVERNANCE/KKZ2005/Q&A.HTM.

level.... In fact, many OECD countries with the highest growth in private spending have also shown the highest increase in public funding of education. This indicates that increasing private spending on tertiary education tends to complement, rather than replace, public investment (OECD 2006)."

- *Increased economic competitiveness:* Private finance in higher education can benefit a country's economic competitiveness by improving the orientation of educational systems to the needs of the labor market. Purely state-led, supply-side expansions of systems of higher education (e.g., in the former communist states or in some African states) have contributed to phenomena such as taxi drivers with PhDs (Easterly 2006). Cost-sharing orients students to programs of study that will provide some future financial return and increases the demand for accountability from institutions of higher education.

- *Reduced corruption:* In a number of countries, higher education is riddled with corruption. These problems have been particularly severe in the transition to the market in many post communist countries. Examples include bribes for copies of entrance exams, bribes for entrance to universities, and payment for passing grades (MacWilliams 2001; Overland 2002; Rocca 2007). Corruption is a complex phenomenon grounded in economic, social, and political realities; effective policies against it require a multipronged approach (Rose-Ackerman 1999). Private finance can serve as one of these prongs. When a government places legal restraints on private institutions while rationing spots for publicly subsidized higher education, burgeoning demand creates the perfect conditions for corruption. Private finance can help bring supply and demand in higher education closer to equilibrium. Nevertheless, private finance is not a panacea for corruption, as recent scandals in the student loan industry in the United States demonstrated (Field 2007).

Recent Innovations in the Private Financing of Higher Education

As private finance has taken on a greater role in sharing the cost of higher education, it has also increased its role as a conduit for investment in higher education. This has led private finance to gain greater sophistication in this sector, with a handful of countries pioneering innovative financial techniques such as FDI, securitization, tax incentives, public-private partnerships, and university-industry collaboration. The initial success of these techniques in a handful of countries suggest that other countries may benefit by adapting them to their national circumstances. The techniques may be particularly beneficial in the market for educational credit, since educational finance has limited recourse to the foundation of most credit markets—that is, collateral and credit histories. To successfully adopt these techniques, governments will have to build the necessary legal and tax frameworks, investors will have to develop information on the market potential in particular countries, and universities will have to develop models for relationships with businesses. Each of these techniques carries particular legal, financial, and social requirements:

1. *University-Industry Collaboration:*
   The advent of the knowledge economy has brought the university to center stage in technological innovation, and the United States has been the front-runner. The first examples of intense university-industry collaboration were the Massachusetts Institute of Technology and the University of California at Berkeley. These universities pioneered a model of self-sustained funding for research through income from patents (Etkowitz et al. 2000). These models of technology transfer spread to a much wider cross-section of American academia after the passage in 1980 of the Bayh-Dole Act, which granted intellectual property rights on federally funded research to universities. Many American universities have subsequently developed a significant role as partners with regional industries and as world-class innovators. Universities in other parts of the world, particularly Europe and Japan, are trying to match the success of American universities in university-industry collaboration. In 1985, the United Kingdom passed legislation comparable to the Bayh-Dole Act that devolved intellectual property rights from a British state agency to individual universities (Etkowitz et al. 2000). Likewise, public universities in some countries of continental Europe have been granted greater financial autonomy from their governments, a prerequisite for university-industry collaboration. In Japan, universities are beginning to transfer new technology to the market, with help from the Japanese Ministry of Economy, Trade, and Industry (Etkowitz et al. 2000). While many of these developments were prompted by American innovation, it is unlikely that exact copies of the American model will spread elsewhere. For example, the European Union's attempts to establish a European Institute of Technology will necessarily draw on preexisting national traditions of scientific investigation (European Parliament 2006). University-industry collaboration in Japan will be shaped by Japan's particular type of industrial organization (Fukuyama 1996). Whether the United States will retain dominance in this field over the next few decades or will be overtaken by other regions of the world is not yet clear.

2. *Philanthropy:* While philanthropy has a long history in connection with education, in recent years it has started to combine with private finance in innovative ways. The most notable example is the Sampoerna Foundation, which worked with the Bank Internasional Indonesia and the International Finance Corporation (IFC) to establish a risk-sharing facility that provides loans on subsidized terms to Indonesian students and parents. The Sampoerna Foundation provided an initial cash reserve that may cover any first

losses, while Bank Internasional Indonesia provided the loans, and the IFC structured the deal (Sampoerna 2006). Another example of a new development in philanthropy is the spread of American-style endowment campaigns and management to other parts of the world. The most notable examples so far are at Oxford and Cambridge, although there are others, including a $500 million donation to the Indian Institutes of Technology by a group of wealthy alumni and a $10 billion donation by the prime minister of the United Arab Emirates to education in the Arab world. These are exceptional cases, however; in the great majority of cases, philanthropy is at best one part of a larger strategy of revenue diversification by universities (Johnstone 2005).

3. *Securitization:* A financial technique originally developed in the housing market, securitization has been used to facilitate the issuance of student loans and the payment of tuition. Securitization bundles together groups of similar assets that support a regular payment stream—in this case, student loan payments or tuition. Securitization has numerous motivations, but the most important in the context of educational credit is the ability of investors to transform illiquid assets such as student loans into tradable assets. This process allows markets to place a price on the risk of default and sell this risk to willing investors via a bond issuance. Governments or private issuers of student loans benefit through easier access to credit markets, universities can access future tuition proceeds to fund expansion, and students have easier access to loans. The net result is an increase in the number of individuals and institutions able to invest in education.

Thus far, securitization of student loans has been used primarily in the United States. The U.S. market for student loan securitizations started to develop after the passage of key legislation in 1992, and issuance of student loan securitizations has grown steadily since then, reaching over $80 billion of new issuance in 2006 (Fitch 2007). Most cases outside the United States are in the United Kingdom; a few—in places such as Chile and Brazil—involve tuition rather than student loans. In the United Kingdom, the secretary of state for education and employment has carried out two securitizations of student loans, one in 1998 with Greenwich NatWest and one in 1999 with Deutsche Bank (Honours Student Loan 2006). Another securitization deal came to market in the United Kingdom in 2006, based on proceeds from student housing (U.K. Student Housing 2006). Elsewhere, securitization in the educational credit market has been limited. Most of the examples thus far are due to the efforts of the IFC. The following are examples:

- In Chile in 2003–04, the Universidad Diego Portales sold $23 million in bonds backed by student tuition payments

(IFC undated). The IFC provided a partial credit guarantee. The bonds were used to fund the successful renovation and expansion of the university's facilities (Chilean Tuition Deal 2003).

- In Peru in 2005, the Universidad San Martin de Porres issued $30 million in bonds backed by student tuition payments. The IFC helped restructure an existing syndicated loan. These funds allowed for modernization of the university's facilities and the creation of regional campuses (Louat 2006).

- In Brazil, the local investment bank Unitas securitized tuition for the Universidade Luterana do Brasil (ABS Education Starts 2004).

Despite its limited use in education so far, securitization of other classes of assets has been developing by leaps and bounds in many parts of the world. Securitization has been making headway in the markets for assets such as mortgages, royalties, and natural resources from the Middle East to China to a number of the post communist states. These developments suggest that governments and universities will increasingly have the option of turning to securitization for the financing of higher education.

4. *Human Capital Contracts:* Another avenue for the involvement of private finance in higher education is human capital contracts. These contracts may help deal with the risk involved with educational investment by requiring students to pay an agreed upon percentage of their income to an investor for a fixed period of time. While higher education is generally highly remunerative, investment risk can be high for individuals. Human capital contracts allow this risk to be shared across many people through a financial intermediary that holds equity in each individual's future earnings. Human capital contracts may also be implemented with government support; for example, subsidies may be targeted to students from low-income families to address equity concerns. While human capital contracts are theoretically attractive, few examples exist. These include short-lived programs at Yale in the 1970s and, more recently on the Internet, at My Rich Uncle, the German firm Career Concept, the nonprofit Robertson Foundation, and Lumni Inc., which operates in Chile and Colombia.[13] None of these programs have yet reached a significant number of students.

5. *Foreign Direct Investment:* Over the past decade, many universities have invested in a branch campus overseas. These branch campuses attempt to match the curriculum of the parent institution and offer an identical degree. Currently, approximately 80 such offshore campuses of higher education institutions operate worldwide (Verbik 2007). Prominent examples are George Mason University's campus in the United Arab Emirates and RMIT University's campus in Vietnam. While FDI has a limited ability to reach a large proportion of the world's student population, the potential of branch campuses is greater than that suggested merely by enrollment numbers. Branch campuses can stimulate competition and transfer models of education between countries. Of the 68 offshore campuses for which a funding model has been identified, approximately a third are fully financed by the educational institution itself through a combination of tuition and philanthropy, while the other two-thirds receive some form of support from the host country (Verbik 2007). The potential for the growth of FDI in higher education is uncertain. The General Agreement on Trade in Services, part of the World Trade Organization's attempts to liberalize trade, contains articles that provide for the liberalization of higher education provision. However, an exemption is made for services that are supplied "in the exercise of governmental authority" (Knight 2006). To what extent higher education falls under this exemption has not been resolved.

[13] More information is available on these programs at the following Web sites: www.myrichuncle.com; www.career-concept.de; www.robertsonfoundation.org; and www.lumninet.com.

The Future of Private Finance in Higher Education

While each of the innovations described in the preceding section holds promise for the expansion of educational opportunities, none will achieve this without further development and adaptation to national circumstances. Each requires the active collaboration of national governments, private investors, universities, students, and others. The GCPF will facilitate this collaboration by distilling lessons from past successes and failures and by convening individuals from across geographic and institutional lines.

The GCPF's first task is to develop policy recommendations that governments and others can use to make private finance a partner in higher education. The political process underlying educational reform is a critical element; it can make or break a program to introduce tuition or promote university-industry collaboration. For example, New Zealand introduced a student loan program in the 1990s, but it was introduced too hastily and resulted in an electoral backlash. Governments can develop various techniques to implement educational reform more effectively—for example, grandfathering provisions that introduce tuition gradually or means-tested scholarship programs to accompany cost-sharing measures. Universities can develop methods to draw on culturally appropriate support from philanthropists and alumni.

A second task is to fill the information gap on private finance. The lack of historical data on student loan default rates introduces an additional cost to private investors. Thus far, the market has underinvested in higher education finance because of the high initial cost to obtain this information. In a few cases, the IFC has helped overcome this barrier, but many more profitable investments may exist if the data were available. Successful examples of private participation in student loan schemes include purely private programs such as the extensive private loan sector in the United States, public programs that rely on the private sector for financing requirements, (e.g., the securitization of publicly held student loans in the United Kingdom), and public loan agencies that receive support from private nonprofit organizations (e.g., South Africa's National Student Financial Aid Scheme). The GCPF can examine the relative merits of various schemes regarding their ability to minimize default rates and to induce private sector participation in the student loan market.

A third task involves the legal framework that supports private finance. Education is typically a long-term investment, so private sector investment is sensitive to perceptions of the inviolability of contracts. Protecting the rights of investors is essential. Specific legal issues include the tax code, intellectual property rights, ownership of financial assets, and FDI. Tax codes come into play with philanthropy, which can be facilitated through tax exemptions. Intellectual property rights are important for university-industry collaboration, as evidenced by the Bayh-Dole Act. The legal status of financial assets must be addressed to facilitate securitization, which requires that full ownership of assets such as student loans be transferred to a trust that is legally separate from the originator. FDI requires legal infrastructure that provides some protection from expropriation. The GCPF can serve as a resource to governments on developments in these areas.

The GCPF's fourth task is to explore the relationship between private finance and government funding allocation mechanisms. Many governments are moving away from supply-side allocation mechanisms in higher education, in which universities are granted funding based, for example, on the number of students enrolled. These mechanisms are being replaced by demand-side mechanism in which universities receive public funding based on output, such as graduation rates or the production of high-quality research (Salmi and Hauptman 2006). Private finance may play a role in helping governments institute innovative reform of allocation mechanisms, but these connections have not been adequately explored. The GCPF will determine the most effective ways for government funding mechanisms to draw on partnerships with private finance. The private financing of higher education carries potential

benefits as well as risks. Critics have argued that private finance can damage equity while undermining the ability of universities to fulfill their public role (Task Force on Higher Education and Society 2000; Tilak 2005; Williams 2006). However, private finance is not monolithic; for example, tuition and university-industry collaboration have very different implications for higher education. Moreover, a particular form of private finance cannot be judged in universal terms—the introduction of tuition fees has consequences in the United Kingdom that are quite different from those in Russia. Weighing the benefits and risks of private finance in higher education requires attention to national context.

Higher education is increasingly called upon to provide access to greater numbers of students, support economic development in a globalized economy, and promote equity in rapidly changing societies. In many countries, private finance has helped higher education meet these challenges, and the GCPF will continue to identify the role private finance can play in expanding access and equity in higher education around the globe.

Appendix

Data Sources

The OECD publishes education data in its annual "education-at-a-glance" series, which can be accessed at www.oecd.org/edu. The data in this series are drawn from the UNESCO/OECD/EUROSTAT (UOE) online education database (UOE Database). Information about definitions, collection procedures, and limitations in the data can be found in the *OECD Handbook for Internationally Comparative Education Statistics*, also accessible on the OECD Web site.

The UIS was established in 1999 and has been publishing its annual *Global Education Digest* since 2003. Copies of this report can be accessed at www.uis.unesco.org. The *Global Education Digest* presents a selection of education indicators based on an underlying UIS database with a full set of indicators; some figures in this issue brief draw on this database (UIS Data Centre). While the UIS relies on governments to report accurate data, UIS staff have made considerable efforts to produce accurate and comparable information through standardized definitions, assist UNESCO member states, and vet data.

Initiated in 1997, the WEI program is a collaboration between the UIS and OECD. It collects education indicators from 19 middle-income countries using a methodology and definitions based on the UNESCO/OECD/EUROSTAT methodology.[14] Data collected as part of the WEI program are provided in table format on the WEI Web site (WEI 2006).

Limitations in the Data Sources

The underlying data sources for the figures provided here are imperfect at best. In an overview of comparative education data, Alex Usher warns that "the basic set of activities being described by existing world education statistics can differ significantly from country to country" (Usher 2006). Usher's warning points to a significant flaw in the data, namely that national accounting conventions vary in whether they classify certain expenditures as "public" or "private," or as expenditures on higher education at all. In the context of OECD data, a number of problems of comparability arise as a consequence of this variation:

1. *Ancillary Services:* When institutions provide ancillary services such as room and board, these costs are included in the data on total expenditures on higher education. When these services are not provided by institutions but are subsidized by financial aid, they are also included in higher education expenditures. However, when these services are neither provided by the institution nor subsidized, they are not included in higher education expenditures.
2. *Noninstructional Expenditures:* The cost of research and development is included in higher education expenditures, regardless of whether it is directly related to instruction. Expenditures on hospitals associated with universities are excluded from higher education expenditures except for that part directly related to the teaching of students.
3. *Retirement Benefits:* Some higher education systems make ongoing contributions to the retirement benefits of employees, while others do not. The OECD asks countries that do not make ongoing contributions to impute the cost of these benefits. While this increases comparability, it is still imperfect.
4. *Extra-Institutional Expenditures:* The OECD records student expenditures on education not required by institutions—for example, additional books and learning software—using information obtained by national household surveys. These surveys cannot be assumed to be comparable.
5. *Student Loans:* Government loans to students are recorded on a gross basis; that is, total loans granted to students are counted as public expenditures without subtracting repayments or interest paid on existing loans. Thus, countries with extensive government student loan programs will have a relatively overstated level of public expenditures on higher education.[15]

Data from the UIS have a similar but not identical set of comparability problems, and interested readers can find more information about this in the *UIS Survey 2007 Data Collection on Education Statistics Instruction Manual for Completing the Questionnaires on Education Statistics.*[16] The consequence of these problems is that comparisons between individual countries at a particular moment in time must be viewed skeptically. For instance, while **FIGURE A** shows that the private sector in Korea accounts for a greater percentage of higher education expenditures than the private sector in the United States, the data are not reliable enough to be certain of this comparison. However, the overall ranking of countries correlates with other evidence (e.g., tuition fees, for-profit institutions, philanthropy) on the size of private finance in higher education. Furthermore, to the extent that accounting conventions have remained stable over time, the trend data reflect the underlying reality that private finance has increased its size relative to the public sector.

[14] Further information on the program can be found at www.uis.unesco.org/ev.php?URL_ID=5263&URL_DO=DO_TOPIC&URL_ SECTION=201.

[15] Credit is due to Bruce Johnstone, director of the International Comparative Higher Education Finance and Accessibility Project, for providing information on some of the accounting discrepancies that exist in international comparisons of higher education expenditures. For more detailed information on the OECD data, see: (OECD 2004b). For information on limitations in the UIS data, see: www.uis.unesco.org/ev.php?ID=5202_201&ID2=DO_TOPIC. For information on limitations in the WEI data, see: www.uis.unesco.org/ev_en.php?ID=6707_201&ID2=DO_TOPIC.

[16] The UIS instruction manual is available at: www.uis.unesco.org/template/pdf/survey_2007/EN_M1_2007_Final2.pdf.

References

ABS Education Starts for Mexican Universities. 2004. *Asset Securitization Report*, August 9.

Agarwal, Pawan. 2006. *Higher Education in India: The Need for Change*. Working Paper No. 180. New Delhi, India: Indian Council for Research on International Economic Relations.

Arimoto, Akira. 2006. Structure and Functions of Financing Asian Higher Education. *Higher Education in the World 2006: The Financing of Universities*. Tres, Joaquim, and Francisco Lopez-Segrera (eds.). Suffolk, UK: Global University Network for Innovation.

BBC. See: British Broadcasting Corporation.

Benjamin, Dwayne, Loren Brandt, John Giles, and Sangui Wang. 2005. Income Inequality During China's Economic Transition. Available at: www.msu.edu/~gilesj/BBGW.pdf.

British Broadcasting Corporation (BBC). 2007. Blair Boosts Universities' Funds. Available at: news.bbc.co.uk/2/hi/uk_news/education/6362521.stm.

Buchori, Mochtar, and Abdul Malik. 2004. The Evolution of Higher Education in Indonesia. In *Asian Universities: Historical Perspectives and Contemporary Challenges*. Altbach, Philip G., and Toru Umakoshi (eds.). Baltimore: Johns Hopkins University Press.

Chilean Tuition Deal Becomes ABS Freshman. 2003. *Asset Securitization Report*, May 12.

CIA World Factbook. 2006. Available at: www.cia.gov/library/publications/the-world-factbook/index.html.

Easterly, William. 2006. *The White Man's Burden: Why the West's Efforts to Aid the Rest Have Done So Much Ill and So Little Good*. New York: Penguin Press.

Etkowitz, Henry, Andrew Webster, Christiane Gebhardt, and Branca Regina Cantisano Terra. 2000. The Future of the University and the University of the Future: Evolution of Ivory Tower to Entrepreneurial Paradigm. *Research Policy*. 29.

European Parliament, Committee on Industry, Research and Energy. 2006. Assessment of the Feasibility and Possible Impact of the Establishment of a European Institute of Technology. Available at: www.merit.unu.edu/publications/docs/ 200704_EIT.pdf.

Fitch Ratings. 2007. The Student Loan Report Card. Available at: www.securitization.net/pdf/Fitch/StuLoanRpt_17Jan07.pdf.

Field, Kelly. 2007. How 20 Years of Lenders' Marketing Strategies, From Free Toasters to Kickbacks, Gave Birth to a Scandal. *The Chronicle of Higher Education*, June 1.

French, Nigel. 2001. Financing of Higher Education–A Nordic Perspective. Available at: www.oecd.org/ dataoecd/15/34/2082352.pdf.

Fukuyama, Francis. 1996. *Trust: The Social Virtues and the Creation of Prosperity*. New York: Free Press.

Graham, Carol. 2001. *Stemming the Backlash Against Globalization*. Washington, D.C.: The Brookings Institution. Available at: www.brookings.edu/comm/policybriefs/pb78.htm.

Gros, Daniel. 2006. Efficient Education Strategies in Europe: What Can We Learn from an International Comparison? Centre for European Policy Studies. Available at: www.ceps.be/wp.php?article_id=505.

Honohan, Patrick, and Brendan Walsh. 2002. Catching Up with the Leaders: The Irish Hare. *Brookings Papers on Economic Activity*. 2002.1, March.

Honours Student Loan ABS Sits Second Test with Pound(s) 418m Deal. 2006. *Euroweek*, October 13.

ICHEFAP. See: International Comparative Higher Education Finance and Accessibility Project.

IDP Education Australia. 2002. *Global Student Mobility 2025*. Available at: www.idp.com/16aiecpapers/program/thursday/marketing2/Bohm_2025Media_p.pdf

IFC. See: International Finance Corporation.

International Comparative Higher Education Finance and Accessibility Project (ICHEFAP). Student-Parent Cost by Country. Database available at: www.gse.buffalo.edu/org/IntHigherEdFinance/index.html.

International Finance Corporation. Undated. Universidad Diego Portales. Available at: www.ifc.org/ifcext/che.nsf/AttachmentsByTitle/Factsheet_UDP.pdf/$FILE/UDP.pdf.

Johnstone, Bruce. 1986. *Sharing the Costs of Higher Education*. New York: College Entrance Examination Board.

_____. 2005. A Political Culture of Giving and the Philanthropic Support of Public Higher Education in International Perspective. *International Journal of Educational Advancement*. 5.3: 256–264.

_____. 2006. Higher Education Accessibility and Financial Viability: The Role of Student Loans. *Higher Education in the World 2006: The Financing of Universities*. Tres, Joaquim, and Francisco Lopez-Segrera (eds.). Suffolk, UK: Global University Network for Innovation.

_____. 2007. Financing Higher Education in the United Kingdom: Policy Options from an International Perspective. Presentation at the Seminar Series on Mass Higher Education in the UK and International Contexts, Langbank, Scotland. February 7–8.

Knight, Jane. 2006. *Higher Education Crossing Borders*. Paris: UNESCO.

Lederman, Doug. 2007. Another Move from Public to Private. *Inside Higher Education*, January 30.

Levy, Daniel C. 2006. An Introductory Global Overview: The Private Fit to Salient Higher Education Tendencies. PROPHE Working Paper No. 7. Available at: www.albany.edu/dept/eaps/prophe/publication/paper.html#WP7.

Louat, Nathalie. 2006. Innovative Financing Solutions in Education. Presented at the 2006 International Investment Forum for Private Higher Education. Available at: www.ifc.org/ifcext/che.nsf/AttachmentsByTitle/Ed_06_Louat/$FILE/Louat_IFC+Structured+Finance.pdf.

MacWilliams, Bryon. 2001. Corruption, Conflict, and Budget Cuts Afflict Academe in Former Soviet Republic. *The Chronicle of Higher Education*, December 14.

Marcucci, Pamela, and Bruce Johnstone. 2007. Tuition Policies in a Comparative Perspective: Theoretical and Political Rationales. *Journal of Higher Education Policy and Management*. 29.1.

Martin, Michaela, and Bikas C. Sanyal. 2006. Financing Higher Education: International Perspectives. *Higher Education in the World 2006: The Financing of Universities*. Tres, Joaquim, and Francisco Lopez-Segrera (eds.). Suffolk, UK: Global University Network for Innovation.

Miguel, Jesus M. de, and Jan Sadlak. 2006. Regional Perspectives: Europe. In *Higher Education in the World 2006: The Financing of Universities*. Tres, Joaquim, and Francisco Lopez-Segrera (eds.). Suffolk, UK: Global University Network for Innovation.

Muhr, Thomas, and Antoni Verger. 2006. Venezuela: Higher Education for All. *Journal for Critical Education Policy Studies*. 4.1, March.

OECD. See Organisation for Economic Co-operation and Development.

Organisation for Economic Co-operation and Development (OECD). 2004a. Internationalisation of Higher Education. Policy Brief, August. Available at: http://www.oecd.org/dataoecd/33/60/33734276.pdf.

_____. 2004b. *OECD Handbook for Internationally Comparative Education Statistics: Concepts, Standards, Definitions and Classifications*. Available at: http://www.sourceoecd.org.

_____. 2006. *Education at a Glance: OECD Indicators 2006*. Available at: www.oecd.org/edu/eag2006.

Overland, Martha. 2002. In India, Suitcases of Money Buy Admission to College. *The Chronicle of Higher Education*, August 2.

Parker, Thomas. 2006. What the World Needs Now: Cross-National Student Loan Programs. *Connection*. 21.2 (Fall).

Patrinos, Harry Anthony. 2000. Market Forces in Education. *European Journal of Education*. 35.1.

Psacharopoulos, George. 1994. Returns to Investment in Education: A Global Update. *World Development*. 22: 1325-43.

Psacharopoulos, George, and Harry Anthony Patrinos. 2002. Returns to Investment in Education: A Further Update. World Bank Policy Research Working Paper 2881. Washington, D.C.: World Bank.

Rocca, Francis. 2007. Exam Scandal in Serbia Provokes Response from Education Minister. *The Chronicle of Higher Education*, March 16.

Rose-Ackerman, Susan. 1999. *Corruption and Government*. New York: Cambridge University Press.

Salmi, Jamil, and Arthur M. Hauptman. 2006. *Innovations in Tertiary Education Financing: A Comparative Evaluation of Allocation Mechanisms*. Washington, D.C.: World Bank.

Sampoerna Foundation. 2006. Increasing the Impact and Effectiveness of Foundation and Donor Funding. Presentation at the 2006 International Investment Forum for Private Higher Education. Available at: www.ifc.org/ifcext/che.nsf/Content/Ed_Forum_2006_Agenda.

Sanyal, Bikas C. 2006. Financing Higher Education in Central Asia. In *Higher Education in the World 2006: The Financing of Universities*. Tres, Joaquim, and Francisco Lopez-Segrera (eds.). Suffolk, UK: Global University Network for Innovation (GUNI).

Swail, W.S., and D.E. Heller. 2004. *Changes in Tuition Policy: Natural Policy Experiments in Five Countries*. Montreal: Canada Millennium Scholarship Foundation.

Task Force on Higher Education and Society. 2000. *Higher Education in Developing Countries: Peril and Promise*. Washington, DC: World Bank.

Tekleselassie, Abebayehu, and Bruce Johnstone. 2004. Means Testing: The Dilemma of Targeting Subsidies in African Higher Education. *Journal of Higher Education in Africa*. 2.2: 135-158.

Tilak, Jandhyala B.G. 2005. Global Trends in the Funding of Higher Education. *IAU Horizons*. 11.1 (March): 1–3. UIS. See: UNESCO Institute for Statistics.

U.K. Student Housing CMBS Launched. 2006. *Securitization News*, December 1.

UNESCO Institute for Statistics. Data Centre. Available at: http://stats.uis.unesco.org/.

_____. 2006. ISCED1997: International Standard Classification of Education. Re-edition. Available at: www.uis.unesco.org/TEMPLATE/pdf/isced/ISCED_A.pdf. UNESCO Institute for Statistics/Organisation for Co-operation and Development. 2005. *Education Trends in Perspective: Analysis of the World Education Indicators*. Available at: www.uis.unesco.org/TEMPLATE/pdf/wei/WEI2005.pdf.

UNESCO/OECD/EUROSTAT Online Education Database. Available at: www.oecd.org/document/54/0,3343,en_2649_33723_38082166_1_1_1_1,00.html.

UOE. See: UNESCO/OECD/EUROSTAT.

Usher, Alex. 2006. Statistical Overview. In *Higher Education in the World 2006: The Financing of Universities*. Tres, Joaquim, and Francisco Lopez-Segrera (eds.). Suffolk, UK: Global University Network for Innovation (GUNI).

Vawda, Ayesha Yaqub. 2003. Who Benefits from Public Education Expenditures. *Economic Affairs*. 23.1 (March).

Verbik, Line. 2007. The International Branch Campus: Models and Trends. *International Higher Education*. 46 (Winter).

WEI. See: World Education Indicators

Williams, Jeffrey. 2006. The Pedagogy of Debt. *College Literature*. 33.4 (Fall).

World Bank. 2001. *Higher Education in Brazil: Challenges and Options*. Washington, DC: Author.

_____. 2002. *Constructing Knowledge Societies: New Challenges for Tertiary Education*. Washington, DC Author.

World Education Indicators. 2006. Tables 2.a through 2.d. In *Education Counts – Benchmarking Progress in 19 WEI Countries*. Montreal: UNESCO Institute for Statistics. Tables available at: www.uis.unesco.org/template/publications/wei2006/Chap2_Tables.xls.